

Reviews and Comments on Paper 42

Paper information

Paper:

Conflict of Interest: Daniel Varro, Emilio Tuosto

Current decision: **ACCEPT** (accept)

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Summary of received reviews and comments

Reviews superseded by other reviews are shown in the grey color in the table. All times are GMT.

	date	PC member	reviewer	score	confidence
Review 1	May 1			-2	4
Review 2	May 6			2	2
Review 3	May 7			3	3
Comment 1	May 8				
Comment 2	May 8				
Comment 3	May 8				
Review 1	May 8			1	2
Comment 4	May 13				

Review 1 (superseded by another review)

PC member:

Reviewer:

Overall rating: -2 (reject)

Confidence: 4

Review:

Summary:

The authors suggest two benchmarks for gratra tools, the simulation of petri nets and the classical object-relational mapping with synchronization. The key reason why to use these new benchmarks is that they especially recognize a tool's ability for incremental pattern matching.

Evaluation:

There are a bunch of graph transformation tools around nowadays, so that the development of standardized benchmarks becomes an important issue. An indicator for this need has been the lively participation in the AGTIVE tool contest. Furthermore, the GraBaTs workshop colocated with ICGT will also aim at tool comparison via a contest.

The benchmarks suggested in this paper would be a very nice task for a tool contest. In such a setting we would get a real comparison of how the tools deal with (incremental) pattern matching. This paper by nature is quite one-sided and focused on Viatra2. The authors try to compare with GrGen but admit that they are no GrGen experts (therefore this comparison may be arguable). In contrast, the original Benchmarking paper by G. Varro et al. compares several tools in close cooperation with the particular tool developers.

Apart from this weakness, the contribution is not that substantial,

in particular since there is a significant overlap between this paper and a recent paper by the authors (reference [1]).

Suggested improvements:

First of all, the focus of the paper needs to be clearly set. Should a standard benchmark be suggested? Then the setting needs to be described very precisely. Should tools be compared wrt performance? Then more than two tools have to be considered and tool experts have to be involved. Should a particular approach to incremental pattern matching be suggested? Then the Viatra algorithm can be described in all detail (as in [1]). You try to put all these things in a single paper.

Minor remarks:

generally use another notation for number, e.g. 1.000, 1.000.000

rework bibliography, for instance, "Recursive graph pattern matching with magic sets..." is not by Matzner et al.; if you refer to Rozenberg (ed.), Handbook of Graph Grammars you should also give the chapter; refer to the particular paper that appears in the AGTIVE proceedings and not to the website of the tool contest

2.1 petri nets are a standard concept you do not need to reintroduce, just provide a reference to the seminal work

2.2 join with 2.1 and just give the metamodel, readers will know what attributes are

First introduce the benchmarks, then show the results and then you might briefly sketch why Viatra2 is so efficient (RETE...)

line 201/2: unclear

line 219/20: unclear

line 257: Although the model produced is not "realistic" ... the method is quite efficient in creating large graphs quickly. I think it does not matter so much how long it takes to generate input graphs. Advantages might rather be comparability (due to absence of random) and homogeneity.

line 279: somewhere reference to TGG, e.g., Giese, Wagner: Incremental Model Synchronization with TGG

line 344: "significant achievement", this has been achieved in [1], but is no contribution of this paper

line 350: don't be fair, ask the experts and provide objective data

I recommend the use of a spell checker, since there are several typos (seach-based, parametrization, ofpattern, filed...).

PC only:

Time:

May 1, 15:24