

The REACTIVEML Toplevel (tool demo)

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REACTIVEML [4] is an extension of OBJECTIVE CAML dedicated to the programming of reactive systems such as video games or simulation problems. It takes advantage of OBJECTIVE CAML expressiveness and it introduces new constructs *a la* ESTEREL [5] to deal with time.

REACTIVEML is based on the synchronous reactive model [2]. In this model, time is represented as a succession of logical instants and the parallel composition guaranties that all processes can react at each instant. The strength of the model comes from both (1) the synchronous model [1] that ensures the reproductivity of behaviors and (2) the absence of causality problems that allows an easy integration in a general purpose language.

The tool demo will present the language through the use of `rmltop` [3]: the REACTIVEML counterpart of OBJECTIVE CAML toplevel. This toplevel allows a programmer to interactively write REACTIVEML programs which are type-checked, compiled and loaded on the fly. The user can then progressively run concurrent processes and observe the interactions between them.

The language distribution is available at <http://rml.lri.fr>. More information about the REACTIVEML toplevel (including a video) are available at <http://rml.lri.fr/rmltop>.

References

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- [4] Louis Mandel and Marc Pouzet. ReactiveML, a reactive extension to ML. In *Proceedings of 7th ACM SIGPLAN International conference on Principles and Practice of Declarative Programming*, Lisbon, Portugal, July 2005.
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