

Proving Quality of Service Constraints of Multimedia Systems¹

Mónika Mészáros

Some constraints on the quality of service of multimedia systems can be expressed based on a series of values changing in time. So temporal logics can be used for expressing and comparing quality constraints and properties of streams. A first step towards specification language and a proof system is presented in the current paper for proving the properties of multimedia applications. The model is based on the temporal logic, which was developed for proving correctness of distributed and parallel programs and used also for dealing with proven properties of mobile functional code. The applicability of the new concepts and methods are demonstrated by a running example.

References

- [1] L. Böszörményi, C. Becker, H. Kosch, and C. Stary. Quality of Service in Distributed Object Systems and Distributed Multimedia Object/Component Systems, *Technical Reports of the Institute of Information Technology*, University Klagenfurt, TR/ITEC/01/2.05. In *Object-Oriented Technology ECOOP 2001 Workshop Reader* Budapest, Hungary, June 2001, pp 7-30 Springer Verlag LNCS 232
- [2] K.M. Chandy and J. Misra. *Parallel program design: a foundation*. Addison-Wesley, 1989.
- [3] Z. Horváth, T. Kozsik, and M. Tejfel. Extending the Sparkle Core language with object abstraction. *Acta Cybernetica* 17 (2005), pp. 419-445.

¹Supported by CEEPUS HU-II-19