Generic Software Slicing

Nuno Rodrigues
nfr@di.uminho.pt

Departamento de Informática, Universidade do Minho
4710-057 Braga, Portugal

Abstract. Program slicing is a technique for isolating the parts of a program that depend on or are depended upon by a specific element of the program. A Program slice consists of portions of the original program that have some effect on a particular computed value, referred to as a *slicing criterion*. The effort of computing a program slices is called *program slicing*.
In a similar way, but at a different level, applying slicing techniques to software architectural descriptions aims both to enhance system's understanding and analysis, as well as to make possible the extraction and reuse of particular architectural patterns.
At this level, slicing can be made in terms of a (set of) component(s), connector(s) or behaviour(s) (e.g. *use cases*). Previous to the applications of slicing techniques, however, it is required some form of extraction and representation of architectural information from actual (usual complex and heterogeneous) systems. As this is a relatively new area, at least in terms of a formal treatment, we purpose to define what should be an architectural representation and the application of slicing concepts and techniques on top of such a representation.