

Research Issues with Application Generators

Premkumar T. Devanbu
Software and Systems Research Laboratory,
AT&T Bell Laboratories
2b417, 600 Mountain Ave, Murray Hill, NJ 07974
Tel: (908) 582-2062
Email: prem@research.att.com

Abstract

Application generators, which generate domain-specific systems from specifications formulated in a special-purpose high-level formal language, can achieve very high levels of software reuse and impressive gains in productivity. Several tools available in the market have greatly simplified the construction of application generators. There still are, however, significant difficulties in the practical use of application generators. I'm particularly interested in the pursuit of methodological and technical solutions to the following problems: *designing domain-tailored specification languages, re-engineering domain specific frameworks out of existing systems, and assistance for debugging specifications.*

Keywords: domain analysis, application generators, reverse engineering

Workshop Goals: Keep in touch with the state of the art in reuse.

Working Groups: Domain analysis/engineering, Design guidelines for reuse - general, Ada, and/or C++, Reuse and OO methods, Reuse and formal methods, Useful and collectible metrics