Advanced Programming by Contract

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Abstract:

In this Tutorial I provide a number of Principles for using PBC to rigorously document class interfaces in a way that is accessible to technically oriented software developers. With each Principle I present an example, a justification, and advice about when it might be appropriate to violate the Principle (and how to document such violations). The complexity of the Principles vary. Some are simple enough that we can use them to improve the documentation of almost any class. Others are sufficiently complex and time-consuming to use that they may only be appropriate in designing class libraries. Indeed,

I will use examples from ELKS, the Eiffel Library Kernel Standard to illustrate the power of the Principles.

Biography:

JAMES C. MCKIM is a professor of computer science at the Hartford Graduate Center and has more than 25 years experience teaching mathematics and computer science. He has authored, co-authored and reviewed a number of textbooks and articles in both areas. His research interests include object oriented programming and design in general, and class interface specification in particular.