

Part V How to Apply Catalysis

Parts II, III, and IV cover basic techniques for modeling with objects and advanced techniques for factoring and then recombining models and designs using packages, frameworks, and components. They do not describe a development process: the steps to validate and document these models.

Although good modeling tools can help you build useful descriptions of your design, an effective method must also define how to apply those tools and must provide a predictable and repeatable process for development and documentation that is understood by all team members. Developing software without an understandable process can be costly in terms of guesswork, communication problems, inconsistency, and quality shortcomings. A clearly defined process and concrete techniques for building models also shortens the learning curve for those adopting the approach and eliminates one element of uncertainty on the project.

For a bit of perspective, a recent study by the Standish Group found that the 83% of projects that either failed or seriously missed the target in time, cost, and function blamed a large portion of their problems on lack of user input and involvement, unclear requirements and specifications, changing requirements, and lack of executive support.

Part V shows how to use basic techniques to model and design using Catalysis in a clearly defined (although contrived) sequence of steps.

Chapter 13, *Process Overview*, is an overview of the development process, its objectives, and the typical structure of a project. This chapter introduces a set of process patterns that can be customized to different approaches and routes through the method.

Chapter 14, *How to Build a Business Model*, shows how to go about building a business model. Chapter 15, *How to Specify a Component*, describes the process for clearly specifying what is expected of a given component. Chapter 16, *How to Implement a Component*, describes how, given an external specification of a component, you can design and implement it.