
Preface

The Rational Unified Process® (RUP®) is the most mature iterative-incremental software development process on the market. It has a long tradition in the industry that can be traced back to the 1990s when different methodologies merged into this unified approach. This maturity is not only expressed by the age of the process and its updates throughout the years but also through a certification process that complements this IBM® process product.

With the increasing number of users, training courses, and adopters of RUP, the demand for certification has received more and more attention. The interest in certification has come not only from specialists who like to distinguish their skills from others, but also from organizations that use certification to filter candidates and establish a certain skill standard. These trends have raised a tremendous number of questions about the certification process, its administration, and its content in Internet forums and e-mail exchanges.

With the release of RUP 7.0 and a brand-new method authoring tool (IBM Rational® Method Composer) came a new certificate called **IBM Certified Solution Designer – IBM Rational Unified Process**. This book includes the new RUP process framework, authoring capabilities, and, of course, a strong focus on the new RUP certification.

We hope that this book will introduce the latest RUP for newbies, provide a new reference for everybody transitioning from a previous version of RUP, and serve everybody who is interested in receiving the RUP certificate.

Content and Structure of the Book

With those three groups of readers in mind, we have arranged the chapters in this book accordingly to allow you easier navigation of the reference material and preparation for the certification examination.

In Part I, “Introduction,” Chapters 1 and 2 introduce the RUP and the key principles of business-driven development.

- Chapter 1: Welcome to the IBM Rational Unified Process and Certification

This chapter serves as foundation for the rest of the book. It discusses in detail some of the core RUP concepts and provides an overview of the new process architecture and the key principles of business-driven development. Finally, it introduces iterative development using an architecture-centric approach and discusses some of the implementation-specific scenarios.

- Chapter 2: Key Principles for Business Driven Development

Chapter 2 takes a closer look at each of the key principles and discusses successful patterns and how to implement them in a RUP project. It also discusses so-called anti-patterns, which are signals in a project when one or more of these principles have not been followed.

In Part II, “Unified Method Architecture,” Chapters 3 and 4 cover the Unified Method Architecture (UMA).

- Chapter 3: Basic Content Elements

This chapter covers the UMA element types that are used for describing RUP content, such as work products, roles, and tasks. These are the elements that contain language from the RUP pages.

- Chapter 4: Basic Process Elements

In contrast to the previous chapter, this chapter discusses the UMA elements that are used to arrange content elements, such as to activities or delivery processes.

In Part III, “Rational Unified Process: Content and Process Elements,” Chapters 5 through 14 lay out the reference material for RUP 7.0.

The chapters are organized into two subgroups: Disciplines and Process.

- Disciplines

Chapters 5 through 13 introduce the RUP 7.0 content discipline by discipline in the following sequence: Business Modeling, Requirements, Analysis and Design, Implementation, Deployment, Project Management, Change and Configuration Management, and Environment. The content presents the work products, roles, and tasks being used in the RUP for large project configuration.

- Process

Chapter 14: Phases, Activities, and Milestones

This chapter covers the process elements used in RUP 7.0 that align RUP content with the various phases and activities, including their milestones.

At the end of Chapters 1 through 14 are sample questions that help you assess how well you learned the material in the chapter. The content and format of the sample questions also help to prepare you for the test-taking experience.

In Part IV, “Tailoring and Tooling,” the two chapters introduce tailoring approaches and the necessary RUP tooling to get the job done.

- Chapter 15: Tailoring

This chapter focuses on various tailoring and adoption strategies of the RUP.

- Chapter 16: Tools

This chapter is especially important for process engineers who need to customize the out-of-the-box RUP process to their own needs. We will discuss the IBM Rational Method Composer (RMC) and MyRUP, which provide two alternative approaches.

The final three chapters are important for readers who are interested in the RUP certification. Part V, “Certification, Examination, and Practice,” includes the following chapters.

- Chapter 17: The Value of RUP Certification

This discusses the motivations to pursue and the benefits of earning the RUP certification.

- Chapter 18: Sample Examination

This chapter has an examination like the real one to give you a chance to test your knowledge of the RUP before you decide to attempt the real examination. The exam content and format conform closely to the type of questions, question categories, and structure of the questions in the actual exam.

- Chapter 19: Before, During, and After the Examination

The final chapter of this book has tips and tricks before you take the examination, during the examination, and after you have achieved the certification.

Finally, the Appendix, “Answers to Sample Questions,” includes the correct answers for all the questions at the ends of the chapters and the questions in Chapter 18, “Sample Examination.”

Audience

Obviously, the overall audience for the book is those who are interested in RUP certification. But the two segments of this book target different subaudiences. The reference segment, which serves as the latest collection of RUP content and tooling, is useful to process engineers, project managers, and members of the program management office (PMO). In addition, each of the disciplines chapters provides value to many different roles participating in the software engineering effort—business analysts, testers, programmers, and architects. The part on business-driven development will provide motivation for line managers and senior management who consider adopting RUP. The last part of this book (certification) will be useful for all RUP experts who are interested in achieving the new certification, but it also provides details for decision makers who are interested in including this certification in their culture.

If you are new to the RUP, we recommend studying the reference material a few times, before approaching the certification, examination, and practice material. Professionals with a strong RUP background can read through the new reference material once and go straight to the final three chapters. We recommend that you do not memorize the sample examination but try it only once or twice (with your attempts spaced apart) prior to the actual examination.

Final Thoughts

We wish you luck in your pursuit of the certification and in your use of RUP in your projects. If you work through the book carefully, internalize the material, and apply it, you should be successful in your attempt to earn the certification and also in your software development projects.