## Introduction

The IBM i operating system running on IBM Power Systems is a platform in transition. Many think the system is obsolete, largely due to its infamous green screen. Nothing, though, could be further from the truth. When IBM embraced open-source software such as Linux, MySQL, and Zend PHP, the system cemented a formidable position in today's business environment.

This text starts with the traditional concepts and tools (you need to understand these concepts before improving on them) and then describes IBM's new tools and additional concepts, such as SQL. Those of you familiar with the previous version of this book, *Mastering the AS/400*, will notice that the chapters on DFU and SDA have been removed. The use of Query for i5/OS has been reduced, and emphasis has been placed on the new DB2 Web Query product.

The goal of this book is twofold. First, it aims to introduce new IBM i programmers to system concepts and expose those who have used the platform for years to new concepts such as SQL. Second, the book provides a handbook for many of IBM's new tools, including Rational Developer for Power, IBM i Access for Windows, IBM i Access for Web, and DB2 Web Query for i—providing comprehensive information that will be useful regardless of the programmer's level of IBM i expertise.

Having worked on the platform since 1990, and in teaching new IBM i programmers for more than eight years, I have struggled to find a text that encompassed the general concepts of the system, covered new concepts such as SQL, and presented new graphical tools in a format that the reader can work through. When Bryan Meyers and I updated our CL and RPG textbooks, we decided to provide a complete package for today's IBM i student or programmer. Jerry Fottral's *Mastering the AS/400* provided the perfect foundation for a handbook of IBM i concepts and tools.

With the completion of this text, instructors now have the tools to introduce students to the system and continue the course work through CL and RPG programming classes. Veteran programmers have the resources they need to gain the expertise required to update their current skills.

The student, or programmer, should start at the beginning of the text to gain an understanding of the traditional concepts of the IBM i operating system. When using the book in a classroom, some instructors may choose to present just the newer topics and tools. However, students should be made aware of the traditional tools and concepts as well, for they will find many systems still running software that uses physical and logical files created with DDS or queries developed with Query for i5/OS. If students understand the traditional concepts and tools, they are in a better position to help companies convert their systems to the new technologies. Readers familiar with the traditional concepts may pick and choose the chapters/topics presented in the text.

When I started this project, I had no idea of the time and effort it would take to complete. The goal was to develop a text that would present the essential concepts needed by today's programmer and take a snapshot of the current IBM tools at the time of its printing. Often, I found myself updating the IBM i server with newer software before starting (or during) work on a chapter. A new version of Rational Developer for Power was released shortly after Chapters 11 and 12 were complete, causing me to go back and review those chapters. DB2 Web Query for i had a beta version available that included the new InfoAssist tool. Luckily, Gene Cobb at IBM gave me a heads up, and I scrapped the completed chapter and revised it to include this significant update. Thanks, Gene!

Due to the scope of the topics covered, I have included references to specific books that provide additional information, letting readers quickly find the resources to delve deeper into those topics. I encourage those using this book to investigate these additional resources.

I hope you enjoy the result of my efforts. . . . For the most part, I enjoyed writing it! ①

Jim Buck Kenosha, Wisconsin March 2011