

## Preface to the Third Edition

This third edition of *Free-Format RPG IV* has come quickly on the heels of the second edition—to provide you with the best organizational content and updates after recent enhancements to the RPG IV programming language for IBM i® systems.

Free-format RPG now encompasses nearly all functional aspects of the language: H (control), F (file definitions), D (definitions), C (calculations), and P (subprocedures). It's easier now to state which RPG functions are *not* free-format: program-described files and I (input) and O (output) specifications. This edition not only explains the new features—it uses them throughout the book, in all examples.

The addition of free-format control, file, definition, and procedure specifications has propelled RPG into a relevant modern programming language. With these latest changes, it was IBM's goal to make RPG easier to learn for newcomers, and also easy for long-term RPG programmers to learn and use. I believe they have accomplished this goal.

Since there is no longer a need for the /Free compiler directive, my fear is that RPG procedures will become a sloppy mixture of old and new syntax. Prior editions of this book expressed my view that mixing formats is not a good practice.

RPG IV now has a new lease on life and provides us with the capabilities we need going forward. Don't you wonder sometimes—what's next?

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## A Note About Source Entry

Program source entry on IBM i is changing. For a very long time, we used Source Entry Utility (SEU). SEU came with the operating system, as part of a utilities package. When the PC became a commonly used terminal (thanks to 5250 emulation software), IBM introduced an “SEU-like” program called CODE/400 (eventually just CODE). With this product, you connected to the system and requested the program you wanted to edit. From that point on, you edited off-line, using a graphical interface, and sent the revised program back to the system when you were finished editing. Although CODE was used by many, it did not replace SEU for most users of the system.

A few years ago, IBM's WebSphere® group came up with a new editor as part of a product called WebSphere Development Studio Client (WDS<sub>c</sub>). In this case, client meant a PC. Within this product, the Remote System Explorer (RSE) used an editor called LPEX, which stands for Live Parsing EXtensible editor. Many programmers loved this new graphical editor, but although the cost was low, the PC needed to be large (in terms of main storage and speed) at the time.

Fast forward a few years to when IBM enhanced and repackaged the RSE/LPEX product within a new product called Rational Developer for System i (RD<sub>i</sub>). Separate from IBM i, the product now was licensed by user. A few years later, along came the Power® systems, and RD<sub>i</sub> was rechristened RD<sub>p</sub>: Rational Developer for Power. Then, a year or so ago, the name reverted back to RD<sub>i</sub>. So today, its name is RD<sub>i</sub>.

Again, many programmers embraced the new graphical interface to source program entry. To encourage the user community to convert to the new product, IBM stopped enhancements to SEU at V6R1. As a consequence, the V7.1 enhancements to RPG IV are reflected back to SEU users as syntax errors. So, if you are an SEU user (and many are), you will have to ignore the SEU error messages when entering V7 (and beyond) enhancements and override the return to editing option (from Y to N) when exiting an SEU session. The compiler will tell you if you have made errors in source entry.

I would be less than honest if I didn't mention one of the reasons why SEU users have been slow to adopt RD<sub>i</sub>/RSE/LPEX: It has been fairly expensive. I contacted IBM and received the following price quote:

The current price for IBM Rational Developer for i RPG & COBOL Tools  
Floating User Single Install Initial Fixed Term License plus Software  
Subscription and Support for 12 Months is \$835.

And the price will still vary depending on many factors. You will need to contact IBM to get a firm quote.

Also, some training may be needed to learn how to use this new software properly. RD<sub>i</sub> is a robust product, and it contains more than just a source entry capability. Consider attending breakout sessions on RD<sub>i</sub> at a COMMON conference or an RPG & DB2 Summit conference.

A book that has helped me is *The Remote System Explorer* (MC Press, 2008) by Don Yantzi and Nazmin Haji of the IBM Rational Developer lab that developed and supports the RD<sub>i</sub> product.