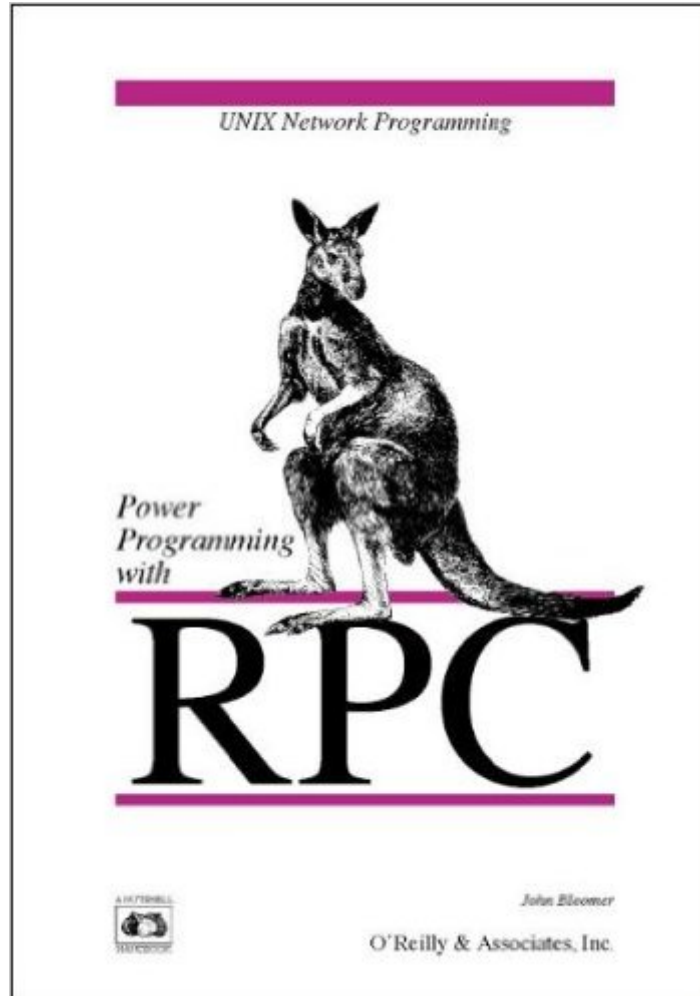# Power Programming With RPC (Nutshell Handbooks)

Synopsis

RPC, or remote procedure calling, is the ability to distribute parts of a program to other computers on a network. An RPC facility manages the exchange of data between computers to make remote execution tranparent to the user. Distributed applications based on RPC can utilize distributed network resources and increase significantly the computing power brought to bear on complex problems. An RPC facility is the fundamental element of a distributed computing environment.The book builds a working understanding of RPC programming through examples. Sun RPC, the de facto standard on UNIX systems, is covered in detail. Interprocess communication and other related UNIX programming topics are also covered.The standard-issue RPC documentation is difficult to understand and lacks real-world examples. There are, in addition, many techniques to learn. This book, written from a programmer's perspective, shows you what you can do with RPC and presents a framework for learning it.Contents include:Foundations of remote procedure calling; what it is, how it works, and which vendors support it.What RPC offers to application and product developers.How RPC fits into a distributed computing environment.ONC and DCE, a comparison of their similarities and differences.How to develop, debug, and deploy networked applications.Understanding the interprocess control (IPC) mechanisms on which RPC is based.Using remote procedure calling in parallel/distributed processing and scheduling.Using remote procedure calling with windowing systems.Examples of distributed applications using both single and multiple concurrent servers.

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Customer Reviews

O'Reilly generally distributes well written, easy to understand books. This is not one of them. The author seems to go to great lengths to make the implementation of RPC's hard to understand. For example, he never seems to plainly describe the sequence of events required to register a server and a client. Instead he requires the user to rely on the rpcgen utility which is OK if you have a simple requirement. However, most people who use RPC's use them because their requirements are NOT simple. Further, if the reader wants to learn more about the RPC procedure he/she must filter out Mr. Bloomers' convoluted 'C' code. In his very first example (downloaded from the O'Reilly web site), Mr. Bloomer forces the reader to muddle through code like: "char *result; char *(*local)(); local = (char *(*)()) add_record; result = (*local)(&argument, rqstp); " without any explanation of what he is trying to accomplish. I wish I could get my money back from O'Reilly on this one.

The book fills a gap in RPC knowhow, that was much needed in the market place. It is in my humble opinion an excellent text on ONC RPC for UNIX (principally Solaris, but doesnt seem to be limited in any way). I did not find any PC specific solutions, but if one uses ONC RPC the XDR message format should ensure cross platform portability IMHO. I have only encountered one other good source on this subject, but I will not do Mr Bloomer a disservice by mentioning that book here .The author has made a sizeable investment of energy in trying to explain a complex and intricate RPC paradigm. The book gives examples of how to do both simple and some of the more complex things with rpc. I was particularly grateful for the author putting in examples and explanations of how to integrate with event-loops of GUIs, and to also how to do i/o multiplexing in a single threaded application. This book helped me tremendously during intricate debugging sessions to understand some of my problems. I have nothing but praise for the authors efforts. I salute you sir....

This is imho the reference for RPC.This book keeps the usual high standard for O'Reilly nutshell books. Yes, this should be seen more as a reference than as an introduction or beginners book, though it covers all important topics and pitfalls to avoid.If you want the best reference and most comprehensive explanation on RPC and how to use it, this is the book to get.Danger: As with all of the better O'Reilly "reference/nutshell" books: it may not be very easy to read. The book assumes a fair good understanding of networking and protocol issues. I think someone looking for a introduction or beginners guide will be very dissapointed. This is what makes O'Reilly nutshell books good, they fill the sorely lacking area of deep and detailed books covering all gory detail but does not spend a lot(read: anything at all) of space for the beginner. You will have to think quite a lot to

understand it and reading it from cover to cover WILL take a lot of time. If you are aware of this and wants a comprehensive book which goes through everything, this is the one to get.It is easier to read than RFC1050 and does explain some very very tricky concepts/areas which the RFC just assumes are obvious or assumes you should figure out yourself.I recommend this book.

This is a very good reference book for anyone who wants to know how to use the power of RPC. It covers every little detail and explains some very useful tips that can't be found any where else. Ofcourse the author has assumed a fair knowledge of networking and C but you can't blame him for that 'cos anyone who attempts to use RPC wont be able to do that without the knowledge of these two.

This is a decent book. Its a reference book, so reading it for pleasure might not exactly work. But if you want to know how to use RPC - this is the book for you. It answered all my questions and was an valuable reference.

Power Programming with RPC (Nutshell Handbooks) Java in a Nutshell: A Desktop Quick Reference for Java Programmers (Nutshell Handbooks) Word 2000 in a Nutshell: A Power User's Quick Reference (In a Nutshell (O'Reilly)) UNIX System Programming for System VR4 (Nutshell Handbooks) DNS and BIND in a nutshell (A Nutshell handbook) Delphi in a Nutshell (In a Nutshell (O'Reilly)) Java Foundation Classes in a Nutshell: A Desktop Quick Reference (In a Nutshell (O'Reilly)) Java in a Nutshell: A Desktop Quick Reference for Java Programmers (In a Nutshell (O'Reilly)) Java Enterprise in a Nutshell: A Desktop Quick Reference (In a Nutshell (O'Reilly)) VB & VBA in a Nutshell: The Language (In a Nutshell (O'Reilly)) SQL in a Nutshell (In a Nutshell (O'Reilly)) LPI Linux Certification in a Nutshell (In a Nutshell (O'Reilly)) R in a Nutshell (In a Nutshell (O'Reilly)) Using csh & tcsh (Nutshell Handbooks) Essential System Administration (Nutshell Handbooks) Learning the Korn Shell (Nutshell Handbooks) 1st edition by Rosenblatt, Bill (1993) Paperback Learning Perl (Nutshell Handbooks) Mastering Regular Expressions: Powerful Techniques for Perl and Other Tools (Nutshell Handbooks) Managing Projects with GNU Make (Nutshell Handbooks) Beginning Power BI with Excel 2013: Self-Service Business Intelligence Using Power Pivot, Power View, Power Query, and Power Map