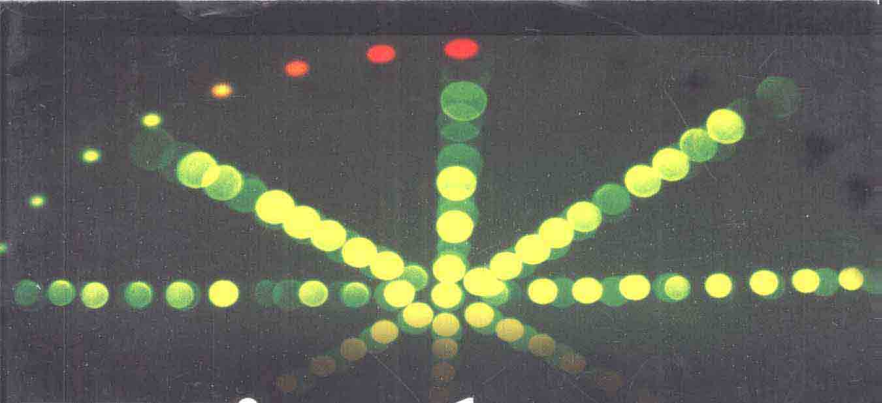

Windows® Server 2003

Pocket Administrator

Your On-the-Job Quick Reference

Nelson Ruest
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Osborne

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PREFACE

Twenty years ago, when most computers were mainframes or minicomputers, operators and administrators had scheduled, specific tasks they needed to perform on an ongoing basis. Each time a task was performed, they had to make note of the time and write their initials in a logbook to demonstrate when the task was performed and by whom.

Today, networks are made from loosely coupled collections of servers and workstations that may or may not include mainframes or minicomputers. Network or systems administration has become much more complex and covers many more tasks than in the past but, somehow, we've lost something in the transition. Most administrators don't keep logbooks any more. Most don't have fixed schedules for administrative activities. Many don't perform even the most basic administrative tasks.

The goal of this book is to help system administrators keep their Windows Server 2003 networks up and running, in the best of health. It outlines over 160 administrative tasks and gives the recommended frequency for each task. It is powered by a companion web site (www.Reso-Net.com/PocketAdmin), the aim of which is provide further information about and additional tools for Windows Server administration. Comments can be sent to a special e-mail address: PocketAdmin@Reso-Net.com. Enjoy!

ACKNOWLEDGMENTS

We would like to thank everyone who contributed to this book, especially Marie-Andrée Furlong for researching every task. Your contribution was invaluable.

We would also like to thank Rod Trent whose insightful comments helped make the book richer and more complete.

Thanks also go to the system administrators of Canadian National Railways in Montreal, Canada, for taking the time to review and discuss with us the final task list we collated. Your perceptiveness was extremely useful and made the book more realistic.

Thanks to VMware Corporation for providing us with the tools to create our virtual lab environment and test out every single procedure outlined here.

Thanks, in advance, to those readers who will take the time to send us their comments and their questions. You will help us make this a better book by feeding the companion web site.

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INTRODUCTION

This Pocket Administrator's guide strives to be different from other guidebooks by going straight to the heart of the matter. We assume that when you reach for this book, it will not be for a long-winded explanation of how something works but because you are in the middle of a task and need answers, fast. Each task outlined here is focused on the task itself and does not usually include extensive background information.

If possible, each task description covers at least three areas:

- The graphical interface
- The command line, if available
- A recommended script, if applicable

The first area explains how you would approach the task to perform it on one or two servers. In fact, the graphical approach is designed primarily for administrators of small networks that contain less than 25 servers. The second area details how you would approach a task when you have to perform it on a series of servers. Unfortunately, even though Windows Server 2003 includes over 60 new command-line tools, this type of tool is not always available for every task. The advantage of this approach is that it is easy to insert command lines into command files in either CMD or BAT format to run them automatically. Another advantage of the command file is that it can be piped into a text file for automatic record keeping, making your task even simpler.

The third method is for extremely large networks where there are hundreds of servers. This book does not include any scripts of its own. It is linked to the Microsoft TechNet Script Center (http://www.microsoft.com/technet/treeview/default.asp?url=/technet/scriptcenter/default.asp); this center provides the building blocks for hundreds of scripts. Each time one of these scripts is applicable to a given task, it is referenced in the book through a special icon.

As you'll see, there are several tasks in this book that do not have an accompanying script on the site. This is why you should continue to check Microsoft's Web site. The Microsoft Script Center team is constantly adding new script examples. In fact, if you have an idea for a script, you can send them a request by writing to the scripting guys at HYPERLINK "mailto:scripter@microsoft.com" scripter@microsoft.com.

Using Server Roles

This book is structured in much the same way you structure your network. Chapter 1 begins with general activities—activities that must be performed on every server no matter what their role in the enterprise. In addition, this chapter covers specific one-time tasks that you need to perform to prepare your administrative environment. This should give you all the tools you need to simplify your administration.

The next chapters are loosely based on the server roles you find in the Manage Your Server interface. Seven server roles are outlined here:

- **File and Print Servers** These servers focus on the provision of storage and structured document services to the network. These functions form the basis of Information Sharing within the network.
- **Network Infrastructure Servers** These servers provide core networking functions such as IP addressing or name resolution including support for legacy systems. They also provide Routing and Remote Access services.
- **Identity Management Servers** These servers are the core identity managers for the network. They contain and maintain the entire Corporate Identity Database for all Users and User Access. For Windows Server 2003, these would be servers running Active Directory Services.

- **Dedicated Web Servers** These servers focus on the provision of Web Services to user communities. This can be with Windows Server 2003, Web Edition, or with another edition running Web services.
- **Application Servers** These servers provide application services to the user community. Windows Server 2003 examples would be SQL Server, Commerce Server, and so on.
- **Terminal Servers** These servers provide a central application execution environment to users. Users need only have a minimal infrastructure to access these servers because their entire execution environment resides on the server itself.
- **Collaboration Servers** These servers provide the infrastructure for collaboration within the enterprise. Their services can include SharePoint Services, Streaming Media Services, and Real Time Communications.

TIP *These server roles are drawn from* Windows Server 2003: Best Practices for Enterprise Deployments by Ruest and Ruest, *from McGraw-Hill Osborne (2003). More information is available at www.Reso-Net.com/WindowsServer.*

Chapter 2 covers the first server role, File and Print, because it is the most common server role. It also includes coverage of Server Clusters because these are also often put in place with file or print services in mind.

Chapter 3 covers Network Infrastructure Servers. This includes the Dynamic Host Configuration Protocol (DHCP) and the Windows Internet Naming Service (WINS). It also includes deployment servers or servers used to deploy operating systems such as Windows XP or Windows Server itself. This includes Remote Installation Services. This chapter covers two more services: Network Load Balancing as well as Remote Access and Virtual Private Networking.

Chapter 4 covers the core of the network or Identity Management. This includes two major services: Domain

Controllers and Domain Naming Servers (DNS). These two services are tied together because Active Directory relies so heavily on DNS to operate properly.

Chapter 5 covers the rest of the server roles. These include Dedicated Web Servers, Application Servers, and Terminal Servers. No Collaboration Servers are covered in this chapter since most collaboration features are add-ons to Windows Server 2003. The final portion of this chapter includes Performance and Monitoring administrative activities. Both are essential in every network.

The features covered in this book are limited by the features of Windows Server 2003 itself. Only core features available with the operating system are covered here. Though it is true that system administrators will often have to perform other administrative tasks that will vary depending on the content of their network, these tasks are beyond the scope of this book.

The Administrative Task List

The core of this book is the administrative task list. The list proposed here has been drawn from a series of different sources including our own experience as well as our clients' real-life administrative environments. It has been validated through discussion and demonstration with several system administrators. Much discussion and consultation produced the list you'll find in this book.

In addition, the task list has been categorized according to recommended task frequency. Frequencies range from a daily, weekly, and monthly, to an ad hoc basis. The latter is a category that includes everything from bi-yearly, yearly, and pretty much any time because while some tasks must be performed, their timing cannot be predicted.

TIP *If you do find that the schedule or the task list doesn't fit your needs, send us a note. Let us know what suits you best and we'll publish updated information on the Web site. Write to us at PocketAdmin@Reso-Net.com.*

The System Administrator

As a system administrator, you'll use a variety of tools to perform the activities listed here. Some of the activities will be administrative, some technical. Some will always be manual while others will be automated. Some will use Windows Server 2003's graphical interface and others, the command line.

To perform this job, you'll have to be technician, administrator, manager, communicator, operator, user, negotiator, and sometimes, director. You'll also need a significant understanding of the environment you work in and of the technologies that support it. This is why it is so important for you to gain a sound understanding in Windows Server 2003. *You are expected to be already familiar with core Windows Server features before using this book.*

System Prerequisites

The prerequisites for the task descriptions in this book are few. You should, however, have standard server builds. In fact, your servers should be designed in two steps. The first should be a general server build. This general build should include every element that is common to all servers no matter what their role. You should also take care to personalize servers and standardize their personalization. Personalization should include elements such as modified folder views to include hidden objects and a status bar, as well as adding commonly-used tools to the Quick Launch Area. Once you're finished personalizing the server, you should update the Default Profile to make sure the view is the same for each administrator that logs onto a server.

Chapter 1 lists how to perform this personalization and how to update the Default User. Make sure you perform this step and capture this personalization in your standard server build.

TIP *Task GS-17 in Chapter 1 tells you how to build a comprehensive Microsoft Management Console for system administration. To help save you time, a copy of this console is available from the companion web site at www.Reso-Net.com/PocketAdmin.*

The second step in your server preparation process should focus on the role the server will play. Once again, you should make sure that each server playing a specific role in your network is built in the same manner at all times. This can only facilitate your work.

Organizing Your Task Schedule

The task frequency should help you organize and define an administrative schedule. You can use the Task Management feature in Microsoft Outlook to help manage your administration schedule, especially for weekly, monthly, and bi-annual tasks. You should include daily tasks in the schedule at first so that you can become familiar with them. It is a good idea to review all the tasks that are listed as "ad hoc" tasks and determine when you want to perform them.

One objective of this book is to help save you time. You might consider doing all daily tasks in the morning, then spending the afternoons of the first days of the week to perform weekly tasks. Reserve one afternoon of each week for monthly tasks; this way, you can spread them out over the course of the month. This should normally leave two afternoons per week for other, or ad hoc, tasks. Start out with this type of schedule and refine it as you go.

TIP *The Appendix includes a list of all tasks sorted by frequency. It should help you define your administrative schedule.*

This book is a pocket book for a reason. It is designed to be used as an everyday backup tool. Use it. Carry it around with you. Make notes in the margins. Fill it with page markers and post-it notes. That's what it's designed for.

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