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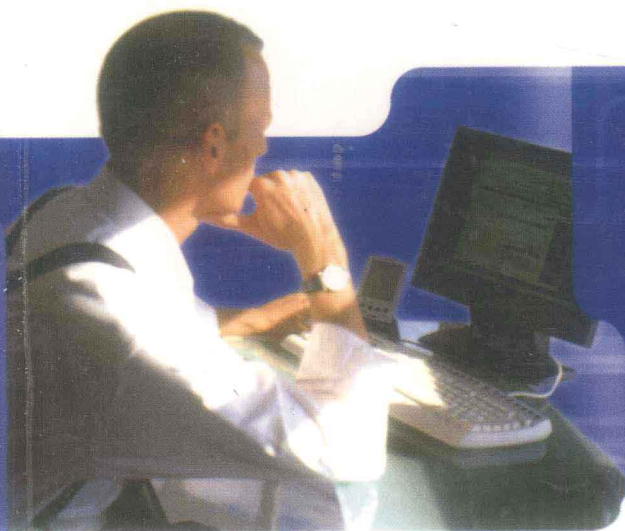
(影印版)

Microsoft®

**Application Center
2000 Resource Kit**



附赠
必备工具、实用程
序和参考资料



Microsoft 公司 著

北京大学出版社

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Microsoft Application Center 2000 资源大全 (影印版)

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内 容 简 介

本书提供了大量资源,可以使系统管理变的非常容易,因而通过学习本书,您可以像运行单独的一台电脑那样轻松地管理一组 Web 服务器。书中提供了大量的技术细节,随书附赠的光盘还含有重要的工具、实用程序及电子版参考资料。上述技术资料和光盘内容都是由 Microsoft Application Center 产品开发小组开发的,可以帮您优化商务 Web 站点的性能,同时简化应用程序并节省费用。

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出版前言

如果用一个成语来概括国内计算机图书市场的现状，当谓之“汗牛充栋”。然而，如果您是一位从事计算机应用系统开发或管理的中、高级专业人士，很可能发现这貌似种类齐全的计算机图书中，为您量身定做的并不多见。

依据多年从事计算机图书工作所积累的经验，以及与 IT 领域广泛而深入的接触所获取的信息，我们认识到，具有相当的专业深度和技术前沿性的图书，是计算机专业人员的迫切需要，当然，也是我们从事计算机图书工作、服务专业领域的一大着眼点。

基于这一点，2000 年元月，我们与微软出版社(Microsoft Press)达成合作协议，成立微软图书影印中心，独家代理微软出版社图书影印版在中国大陆的出版、发行，为 IT 业界提供及时的专业技术服务。选题和策划上的匠心独运，使得我们的影印书成为计算机图书中的标新立异者。这里，有四大特色值得读者朋友予以关注：

首先，这是微软出版社第一次授权在中国大陆影印、发行它的版权书。在选题上，可以说独辟蹊径。在内容上，立足技术广度和深度，系统推介微软产品。所有这些，都是目前国内一般计算机图书所无法比拟的。

其次，我们的理念是为国内计算机专业人员学习前沿性的微软技术服务。为此，我们不但与微软公司紧密协作与沟通，及时掌握微软最新技术动向，而且组织了精干的工作人员，倾力于微软影印书的出版和发行。

再者，微软影印书主要面向中、高级专业人员，印量有限。这类书的读者对象有较强的针对性，一般来说，包括 IT 决策人员，中、高级开发人员，以及中、高级系统管理人员。因而，我们将每套书的印数控制在 1000~2000 册之间。

最后，微软图书影印版几乎与原版书保持同步发行，最大限度地满足了国内读者跟踪微软最新技术的需求。软件升级越来越快，新软件令人目不暇接。作为技术载体之一的图书，只有迅速作出反应，把新软件介绍给读者，才能赢得他们的青睐。总之，兵贵神速，这是我们的目标。

正应验了前人的预言，21 世纪是一个信息时代。软件作为信息系统的神经，在我们生活的这个时代里发挥着举足轻重的作用，而微软公司和它推出的各种软件，更是令世人为之瞩目。我们将立足图书，继续并扩大与微软公司的合作，在中国信息产业的发展道路上留下自己的足迹。

出版者

2000 年 10 月

Preface

For a few years preceding the release of Microsoft Application Center 2000 (Application Center), the people who started the Application Center team have been dreaming of making deployment and operations of Web-based and component-based applications an asset of the Microsoft Windows 2000 Server platform. We dreamt of a world where people could focus on their creativity, not on ensuring servers are running well, making deployments happen, and achieving the level of scale their success demands. In mid-1999, we formed the Application Center group to build the first step in that dream, Application Center 2000. This book is your definitive guide to this product.

Dan Wesley's perspective on the Application Center product is unparalleled. As a member of the product team, Dan sat with the developers, testers, writers, and program managers who built the product. He worked with them daily to ensure he was writing the best material possible, and everyone on the team is very proud of this book. Our thanks to him, and my thanks to the entire Microsoft Application Center product group!

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Introduction

Welcome to the *Microsoft Application Center 2000 Resource Kit*, which provides detailed information about Microsoft Application Center 2000 (Application Center) version 1.0. This information is intended as a supplement to the online documentation that is included with Application Center version 1.0. It does not replace that documentation as the primary source for learning how to use the product's specific features.

About the Application Center Resource Kit

This book contains the following information.

Chapter 1, “Scaling Business Web Sites with Application Center,” provides an overview of the middleware server tier and shows where Application Center is positioned in the Microsoft .NET Enterprise Servers platform (.NET Enterprise Servers). It presents the challenges, issues, and solutions for building applications that are both available and scalable—by using Application Center.

Chapter 2, “Feature Overview,” provides an overview of Application Center and examines the customer requirements that influenced its design. Following this, the product feature set is presented, illustrating how Application Center addresses the server farm scalability and management issues identified in Chapter 1.

Chapter 3, “Application Center Architecture,” describes the product architecture and identifies the key underlying technologies that Application Center uses to support its feature set.

Chapter 4, “Cluster Services,” covers cluster creation techniques for creating Web, COM+ routing, and COM+ application clusters. Additionally, administrative tasks, such as adding and removing members, are described. It also provides detailed information about the events and processing activities that occur when the different cluster services are used, and discusses how Application Center provides out-of-box cluster set up and configuration.

Chapter 5, “Load Balancing,” provides detailed information about each of the Application Center load-balancing features that are supported, Network Load Balancing (NLB) and Component Load Balancing (CLB), as well as how they can be configured. It uses different cluster topologies to illustrate how the different load-balancing options work and interact with each other. In addition, it provides an inside look at the sequence of events and processing activities that occur when you use either load-balancing option.

Chapter 6, “Synchronization and Deployment,” describes two key activities, keeping cluster members synchronized and deploying content. It shows you how to create Application Center applications and specify the resources associated with these applications. It also provides in-depth coverage of the events and processing activities that take place when each feature is used, as well as information about configuring and using the synchronization and deployment features.

Chapter 7, “Monitoring,” provides conceptual information about monitoring and eventing activities and describes the primary underlying technologies that Application Center uses, Microsoft Windows Management Instrumentation (WMI) and Microsoft Health Monitor 2.1. It also provides an overview of the Application Center monitoring feature, as well as detailed information about event and performance logging.

Chapter 8, “Creating Clusters and Deploying Applications,” is a step-by-step guide to creating Web and COM+ application clusters and using a staging cluster to deploy applications to the test clusters that are created. Multitier and phased deployment strategies are presented and assessed. Two sample applications (included on the Resource Kit companion CD) are used to illustrate these activities.

Chapter 9, “Working with Monitors and Events,” provides detailed information about using Windows, Health Monitor, and Application Center events for cluster monitoring. It includes the event schema that is implemented for all aspects of the Application Center feature set (for example, load balancing and synchronization). In addition, it describes how a typical monitor is constructed and how it works, and shows you how to customize a monitor, install the sample monitors that are provided, and create a new monitor for a cluster member or the cluster as a whole.

Chapter 10, “Working with Performance Counters,” discusses issues involved in optimizing and tuning the cluster infrastructure, and covers the key performance counters that you can use for accomplishing these goals. It provides some guidelines for avoiding and alleviating hardware, operating system, and application bottlenecks. It also describes how to use Application Center performance monitoring on a member or cluster-wide basis and use the Web Application Stress (WAS) tool to simulate load on a cluster.

Chapter 11, “Working with the Command-Line Tool and Scripts,” provides an overview of the Windows Script Host (WSH) and detailed information about the Application Center command-line tool, AC.EXE. In addition to giving detailed syntax information about the command-line tool, it gives examples of how to use this tool and includes scripts samples that illustrate how you can use scripting and AC.EXE to automate cluster tasks.

Chapter 12, “Security: For Administrators and Developers,” identifies the leading security issues for Internet and intranet applications and provides information about security methodology and practices. The major infrastructure vulnerabilities are identified and supplemented with information about the security design that is implemented by Application Center. In addition, an extensive resource list identifies the leading sources of computer security information.

Chapter 13, “Third-Party Load Balancer Support,” addresses how to enable and use selected third-party load balancers with an Application Center cluster. In addition to conceptual information, configuration instructions are given and the required scripts and programs are included on the Resource Kit companion CD.

Appendix A, “A Blueprint for Building Web Sites Using the Microsoft Windows DNA Platform,” describes the use of Microsoft technologies, in particular the Windows DNA platform, to build the infrastructure for a scalable, available, secure, and manageable site in the most cost-effective and time-efficient way possible. It identifies the key issues and discusses the available options for constructing Web-based enterprise solutions.

Appendix B, “Network Load Balancing Technical Overview,” provides detailed information about the various aspects of the NLB technology. This information covers the NLB architecture, functionality, performance, and scalability.

Appendix C, “The Art and Science of Web Server Tuning with IIS 5.0,” discusses the major performance issues in an Internet Information Services 5.0 (IIS) Web site environment. It steps you through the process of identifying server and application bottlenecks and recommends solutions for resolving performance problems. In addition, it provides detailed Web server and application tuning information, which includes specific configuration settings.

Appendix D, “Application Center Status Events,” is a detailed event list that includes the event identifier, type, and description for all the events that are specific to Application Center, such as load balancing and synchronization.

Appendix E, “Sample Performance Charts,” is a collection of performance charts that were a result of using the WAS tool to apply load on the various cluster topologies described in Chapter 10.

Appendix F, “Resource Kit Software Tools,” provides an overview of the collection of software tools and scripts that are provided on the Resource Kit companion CD. This overview describes the primary function of each tool and provides installation or usage instructions.

Appendix G, “Managing IIS IP Bindings,” describes how to correctly apply multiple IIS IP bindings for servers in an Application Center environment.

Resource Kit Compact Disc

The *Microsoft Application Center 2000 Resource Kit* companion CD includes a variety of tools, components, and utilities to help you work more efficiently with the different elements in an Application Center environment and the different aspects of cluster administration. Sample applications, scripts, and the source code to some of the utilities are included. The source code serves to illustrate how you can write similar utilities and applications. Documentation for each tool is included when you install it from the Resource Kit companion CD.

Resource Kit Support Policy

Microsoft does not support the software supplied in the *Microsoft Application Center 2000 Resource Kit*. Microsoft does not guarantee the performance of the tools, response times for answering questions, or bug fixes for the tools. However, Microsoft does provide a way for customers who purchase the *Microsoft Application Center 2000 Resource Kit* to report any problems with the software and receive feedback for such issues. To report any issues or problems, send e-mail to rkinput@microsoft.com. This e-mail address is only for issues related to the *Microsoft Application Center 2000 Resource Kit*. For issues related to Application Center 2000 (version 1.0), see the support information included with the product. For more general feedback on Application Center 2000 (version 1.0), and to suggest product enhancements, send e-mail to ACWish@microsoft.com.

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