

INTRODUCTION

The Application System/400 (AS/400) was announced in the late '80s as IBM's newest member of the "classical" line of midrange computers. This line started with the System/3, a computer that, except for the model 15D, only supported batch processing in the form of punched cards. Later, IBM introduced first the System/32 and then, in 1978, the System/34. The System/34 was IBM's first popular, multiuser midrange computer to offer interactive processing using display stations. Shortly thereafter, IBM announced the System/38.

The S/38 was the AS/400's predecessor. You could even say that the AS/400 got most of its architecture and operating system from the S/38. The AS/400 architecture lacks the simplicity of the S/34 (or the S/36, which replaced the S/34 a few years later). Indeed, the AS/400 architecture is complex and the operating system (named OS/400) is therefore complicated. To the uninitiated, it can be downright intimidating.

The purpose of this book is to present the basics to the beginner, yet cover as much territory as possible. This book does not attempt to cover any topic in a thorough, exhaustive manner. The purpose of this book is to introduce the AS/400 in a light manner.

This book is not intended to be read in a single sitting from cover to cover or even sequentially; you can reference the chapters that interest you most, skip some, and jump back and forth. The book is divided into eight parts—Installation, Operations, Administration, System Architecture, Programming, System/36 Environment, Troubleshooting the Internet—an appendix, and a glossary.

INSTALLATION

Part 1 provides some basic advice about the process of installing an AS/400 in your office. If your computer is already installed, you don't need to read this section.

OPERATIONS

Part 2 explains how to:

- Turn the computer on and off.
- Perform an IPL.
- Modify the start-up program.
- Control the system through the console.
- Use the system operator.
- Check on running jobs.
- Control subsystems and maintain your own subsystems.
- Work with output queues and control printers.
- Perform backups and restore from backups.
- Use OS/400's Operational Assistant to automate some of the operating chores.

In addition, user messages are covered. There is a chapter on OS/400 commands, how to use them, and how to find the command you need to run.

ADMINISTRATION

Administering an AS/400 is no small job. Part 3 shows how you can configure your system through system values and gives you the basics on security that includes how to set up users and display stations.

While Part 2 has a chapter on controlling the printer and working with output queues, Part 3 (Administration) covers the other side of the coin: how to make the system send output to a particular output queue or printer by changing settings in different places.

Part 3 also shows you how to decide on a hardware maintenance provider and what you can do to keep your AS/400 humming. You get a list of the basic manuals (briefly described) and the process of upgrading your system to a new release of the operating system.

SYSTEM ARCHITECTURE

Part 4 describes how the AS/400 is organized. It covers the concept of libraries, objects, library list, and practically everything you need to know about files.

PROGRAMMING

A machine as complicated as the AS/400 cannot be programmed with your eyes closed, especially if you are new to this computer. Part 5 teaches you the basics of DDS, CL, RPG, sorting, and how to use the programmer utilities, plus journaling and commitment control. If all these terms are foreign to you, relax. They will be explained in text you will find easy to understand.

SYSTEM/36 ENVIRONMENT

When the AS/400 was introduced, the System/36 Environment was provided as a “transition” environment and it is rarely used anymore. But if your background is in the System/36 and you plan to use the S/36 Environment, you will appreciate Part 6 of this book. This section describes the main differences between the AS/400 and the S/36 and how to use, maintain, and operate the system from within the S/36 Environment. A chapter covers programming OCL and RPG II in the S/36 Environment.

TROUBLESHOOTING

“If something can go wrong, it will,” said the immortal Murphy. This law is especially true of computers. Part 7 tells you what to do in case of trouble, how to request help from IBM, how to report problems to IBM, and how to manage PTFs.

THE AS/400 AND THE INTERNET

IBM implemented a plan to make the AS/400 the “server of choice” for the Internet. If you don’t currently have plans to connect your AS/400 to the Internet, you probably will change your plans in the future. We hope you will find this chapter useful when that time comes.

APPENDIX

The last segment of this book contains an appendix on ILE concepts. A glossary and an index also are included.

This book doesn’t attempt to replace IBM manuals. IBM manuals contain much more information on all topics, but specific answers are sometimes more difficult to find. The IBM manuals are at your disposal on the Internet, but this book presents the information in a simpler, more accessible manner.

You can obtain additional technical information in trade magazines such as *Midrange Computing* and in user groups and organizations like COMMON. The more you know about the AS/400 the better off you will be. For your convenience, each chapter ends with a “Further Reading” list of books.