

# Preface

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In 1968, IBM introduced its Customer Information Control System (CICS) - a system that was designed to allow customers to implement transaction-oriented systems more quickly. CICS has gained almost universal acceptance as a general-purpose transaction management system, and is the production backbone of many major corporations.

During the early years of CICS operation, few performance measuring tools existed and little performance data was available. IBM eventually provided a field-developed tool called the CICS Performance Analyzer II (PA II). This tool was greeted with enthusiasm by the CICS user community and IBM subsequently developed the CICS Monitoring Facility. Eventually, commercially-developed measurement tools appeared, and a spectrum of performance monitoring tools are available today.

However, there initially was little documentation available to guide users in interpreting the results from the tools and making changes to improve CICS performance. IBM responded to this lack of guidance by developing the *CICS Performance Guide*. The *CICS Performance Guides* have been made available for all releases of CICS.

The *CICS Performance Guide* has undergone several revisions as new Releases of CICS have been announced. With each revision, IBM has expanded and improved the guidance, with the result that the *CICS Performance Guide* for CICS Transaction Server for OS/390 is arguably the best document produced by IBM!

Although the *CICS Performance Guide* is an admirable document, users must still laboriously review CICS statistics in order to apply the guidance and improve CICS performance. Reviewing the statistics and determining when to apply changes requires a significant amount of time of the most experienced CICS systems personnel. Unfortunately, these are the very individuals typically with the least amount of time available to spend reviewing statistics.

The CICS Component of CPExpert was designed to help analyze the performance of CICS environments by automating much of the analysis process, identifying potential constraints to improved performance, and suggesting ways to eliminate the constraints. The CICS Component accomplishes this by processing CICS statistics and applying many of the performance analysis techniques contained in IBM's *CICS Performance Guide*.

# How to use this manual

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This document describes how to use the CICS Component of CPExpert to analyze major constraints to improved CICS performance. The manual is organized into six sections and one appendix.

Section 1 provides an introduction to the CICS Component. This section is organized into three chapters. Most of this section can be reviewed for general information.

- Chapter 1 provides a brief background of CICS performance problems and performance analysis.
- Chapter 2 provides an overview of the CICS Component of CPExpert.
- Chapter 3 describes the sources of data used by the CICS Component to analyze constraints to improved CICS performance.

Section 2 provides information on installing the CICS Component (please follow the instructions contained in the *CPExpert Installation Guide* if CPExpert has not been installed). The instructions in this section should be followed when installing the CICS Component. Chapter 2 is included to illustrate the SAS data sets created by MXG that should be present for the CICS Component to analyze CICS performance.

Section 3 describes how to provide data selection and presentation guidance, and specify analysis guidance to the CICS Component. The instructions in this section will be important at any time the guidance need to be changed. This section is organized into two chapters.

Chapter 1 describes how to specify data selection and presentation guidance variables. The instructions in this chapter will be important if you wish to select specific measurement periods for analysis or analyze a different CICS region, or to alter the format of reports produced by the CICS Component.

Chapter 2 describes how to specify analysis guidance variables to guide the CICS Component in its analysis of CICS performance constraints. The instructions in this chapter will be important if you wish to alter the defaults provided with the CICS Component. You should review this chapter so that you appreciate the defaults and how they are used by CPExpert in analyzing CICS performance.

Section 4 provides information on executing the CICS Component. The instructions in this section should be followed closely when executing the CICS Component. Additionally, Chapter 2 contains a checklist for executing the CICS Component.

Appendix A contains a detailed description of each rule that results in a finding based upon the CICS Component analyzing performance of CICS in your environment. You may wish to briefly review the rules in this appendix to appreciate the problems that are

encountered in different installations. However, **it is not necessary to read all of the rules.** It is necessary only to read the rules that are **identified by the reports** produced from the CICCPE Module.

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<sup>1</sup>The affiliation of the individuals is shown as of the time CPEXpert was developed. Some of the individuals are no longer associated with the organizations shown.

