C H A P T E R

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Overview

SAS Applications Development and This Book

SAS Institute offers applications development tools that can be integrated with the features and functionality of other SAS software products. There are two types of applications developers who may want to take advantage of these tools:

☐ *The sophisticated business user.* Increasingly, applications are developed by technically adept users within business units. These business units may require a small application that serves local purposes and SAS information delivery needs. SAS/EIS software is perfectly suited for these business users.

☐ *The IS or IT applications developer.* Corporate information systems departments look for tools to help them deploy enterprise-wide applications. These applications are designed to meet the needs of several business units or the entire organization. SAS/AF software provides the functionality required to build applications on this scale.

Often, the needs of these two groups overlap. The application built by the sophisticated business user succeeds on its small scale, but over time it becomes a maintenance burden and a technical challenge as the requirements expand. Corporate IS may then take on responsibility for the support and enhancement of these applications, or even use them as blueprints to create their enterprise-wide applications. Sometimes these applications involve sophisticated reporting and online analytical processing (OLAP). In other cases, the application requirements extend into decision support, or they may involve extending the functionality of other SAS software products.

The approaches to developing the applications may also involve two types of developers:

☐ *The component designer.* Well-designed components are an integral part of an organization's commitment to object-oriented design and component reusability. The component designer (or class writer) defines the component architecture and creates the class libraries that an organization uses to build its applications.

☐ *The application developer.* By using the components supplied by SAS Institute or customized by the component designer, the application developer creates applications.

This book combines the two approaches to applications development to provide a single resource for developing applications with SAS software – for all types of applications developers. The book is divided into five parts:

Part I: Introducing the SAS Applications Development Environment

The remaining chapters in this section provide an introduction to SAS/EIS and SAS/AF software and detail the applications development environment. In addition, this section presents a basic methodology for developing systems with SAS applications development tools.

Part II: Developing Enterprise Information Systems

Part II is designed to meet the needs of the *sophisticated business user* or *applications developer* who wants to build enterprise information systems. This section describes what one can do with SAS tools "out of the box," including developing applications with ready-made objects, registering data for ready-made applications, and implementing applications.

Part III: Developing Applications

This section is designed for *applications developers* who want to rapidly design, develop, and deploy enterprise-wide solutions for their organization. Topics include working with the build-time toolset, adding SAS Component Language (SCL) programs, and understanding deployment issues.

Part IV: Developing Custom Components

The topics in this section can help *component developers* design and deploy custom components for use in SAS applications. In addition to presenting the object-oriented concepts that are used in SAS components, this section provides information about

☐ creating classes both interactively and programmatically

☐ adding or modifying component properties

☐ implementing model/view designs

☐ deploying components for use by applications developers.

Part V: Appendices

The appendices contain specific information about topics such as flow of control for frame SCL programs, converting legacy classes, and handling events in legacy SAS/EIS objects.

Other Information Sources

In addition to *SAS Guide to Applications Development*, you may rely on other information sources to help you design, develop, and implement applications, including

☐ *Getting Started with SAS/EIS Software*, which provides a step-by-step, high-level tutorial for SAS/EIS software. The tutorial is also available online.

☐ *SAS Component Language: Reference*, which provides detailed reference information about the statements, functions, and other elements of SCL.

☐ SAS System Help, the online help for SAS software. The online Help provides extensive task-based assistance for working with the interactive development environments of both SAS/EIS and SAS/AF software. In addition, the Help system provides a complete Component Reference, enabling you to quickly retrieve class and property information such as attribute metadata or method code.

Online Help for SAS/AF and SAS/EIS Software

The SAS applications development environment provides extensive online Help that is designed to facilitate applications development. You can access Help in both SAS/AF and SAS/EIS software in the following ways:

□ by selecting

| Help | ► | SAS System Help |

and navigating to either the "Using SAS/EIS Software" topic or the "Using SAS/AF Software" topic

□ by selecting

| Help | ► | Using This Window |

in any window

□ by entering `help topic` on the command line, where *topic* is the item for which you want help.

□ by selecting `Help on Class` or `Help on Property` from the pop-up menu in the Build, Properties, and Components windows to view class and property information.