About This Guide

If your goal is to write application programs that run on Silicon Graphics® computers, and if you know quite a bit about UNIX® but not much about the IRIX™ operating system, this book is for you. It doesn't tell you everything you need to know to write your IRIX application, but it does give you an overview of IRIX and the tools and libraries it provides, and it tells you where to go to learn more.

The IRIX operating system is Silicon Graphics' implementation of the UNIX operating system. All application programs written for Silicon Graphics platforms run in the IRIX environment. Writing an application with a graphical user interface that runs on Silicon Graphics platforms requires the IRIX operating system, a compiler for your source code, tools to build your user interface, tools to debug and tune your program, and typically one or more application libraries. This guide describes the software Silicon Graphics provides to perform these tasks.

Figure i illustrates the relationship between Silicon Graphics software, your application, and your user. In this example, an application uses one of the application libraries, Open Inventor, to create an image and display it on the monitor.

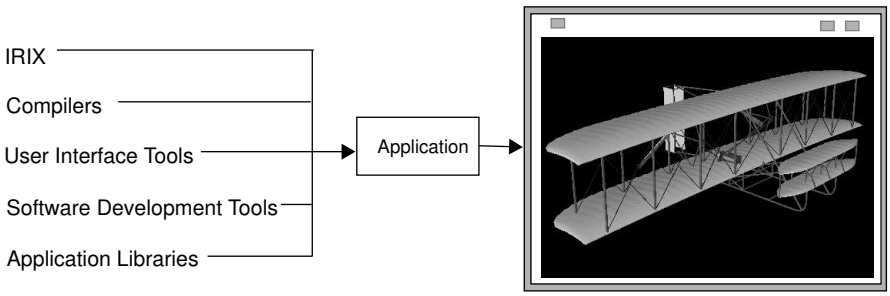

Figure i Building an Application with Silicon Graphics Software

What This Guide Contains

This introduction to programming on Silicon Graphics computers contains the following chapters:

- Chapter 1, "The IRIX Operating System," briefly describes IRIX, the UNIX standards with which it complies, and the features added beyond UNIX to support the graphics and multiprocessing capabilities of Silicon Graphics platforms.
- Chapter 2, "IRIX Developer Documentation," describes the documentation available for IRIX application developers.
- Chapter 3, "Compilers," briefly describes the compilers available to IRIX developers.
- Chapter 4, "User Interface Tools," tells you about the tools Silicon Graphics provides to help you develop a graphical user interface for your application.
- Chapter 5, "Software Development Tools," describes the tools you can use to compile, debug, and tune your application. It also tells you about configuration management and version control software.
- Chapter 6, "Application Libraries," provides an introduction to the application libraries you can use for graphics, image processing, digital media, and printer/scanner management applications.

What You Should Know Before Reading This Guide

This guide assumes that readers are experienced programmers who are familiar with a UNIX programming environment, but not necessarily familiar with IRIX. An understanding of object-oriented programming is helpful when reading parts of this book.