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**iPSC<sup>®</sup> SYSTEM**  
**TECHNICAL DOCUMENTATION**  
**GUIDE**



**intel<sup>®</sup> Corporation**

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BITBUS	iDIS	Intellink	PC BUBBLE
COMMputer	iLBX	iOSP	Plug-A-Bubble
Concurrent File System	im	iPDS	PROMPT
Concurrent Workbench	Im	iPSC	Promware
CREDIT	iMDDX	iRMX	ProSolver
Data Pipeline	iMMX	iSBC	QUEST
Direct-Connect Module	Insite	iSBX	QueX
FASTPATH	int <sub>e</sub> 1	iSDM	Quick-Pulse Programming
GENIUS	int <sub>e</sub> IBOS	iSXM	Ripplemode
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-003	Revision (Incorporate Release 3.3.1 document list)	01/92

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# Preface



This document lists the technical documentation that supports iPSC<sup>®</sup> Supercomputer Systems. The list consists of a description and ordering information for each document.

## Organization

The documentation list is partitioned into the following sections:

- iPSC<sup>®</sup> System Manuals
- Intel<sup>®</sup> Manuals
- Other Manuals
- Future Manuals

Each of these sections consists of an alphabetical list of documents. Each list includes the following elements:

- Title printed on the title page of the document
- Order number by which you may order the document from Intel Scientific Computers
- Number of pages in the document or document configuration
- Brief description of the document



## How to Order a Document

You can order a document through your Intel Supercomputer Systems Division sales representative. Your sales representative will need the following information (available in this document):

- Title of the document
- Order number of the document

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# Documentation Lists

1

## iPSC<sup>®</sup> System Manuals

*Intel<sup>®</sup> Supercomputer Systems Division System Log Book*

311927-003

Provides forms on which to keep system maintenance logs.

*iPSC<sup>®</sup> System Simulator Manual (Revised)*

311534-004

Tells how to use the iPSC system Simulator for software development.

*iPSC<sup>®</sup> System Technical Documentation Guide (Revised)*

312026-003

Describes the technical documentation that supports the iPSC system and tells how to use the various documents.

*iPSC<sup>®</sup>/2 and iPSC<sup>®</sup>/860 C Commands and Routines Quick Reference*

311610-004

Summarizes the C routines and commands for the iPSC system.

*iPSC<sup>®</sup>/2 and iPSC<sup>®</sup>/860 C Language Reference Manual (Revised)*

311567-005

Describes the Green Hills C compiler for the iPSC system.

*iPSC<sup>®</sup>/2 and iPSC<sup>®</sup>/860 FORGE User's Guide*

311866-001

Tells how to use the FORGE tool set to analyze Fortran programs and to port them to a parallel machine.

*iPSC<sup>®</sup>/2 and iPSC<sup>®</sup>/860 Fortran Commands and Routines Quick Reference*

311615-004

Summarizes the Fortran routines and commands and for the iPSC system.

- iPSC®/2 and iPSC®/860 Fortran Language Reference Manual (Revised)*  
311020-005  
Describes the Green Hills Fortran compiler for the iPSC system.
- iPSC®/2 and iPSC®/860 Hardware Installation Manual*  
311461-003  
Describes installation and powering up of all iPSC system configurations.  
(Replaces 311461-001 and 313990-001.)
- iPSC®/2 and iPSC®/860 Interactive Parallel Debugger Commands Quick Reference (Revised)*  
312042-002  
Summarizes the Interactive Parallel Debugger commands for the iPSC system. (Replaces 311798-001.)
- iPSC®/2 and iPSC®/860 Interactive Parallel Debugger Manual (Revised)*  
312043-002  
Tells how to use the iPSC system Interactive Parallel Debugger. (Replaces 311569-002 and 311826-001.)
- iPSC®/2 and iPSC®/860 Math Libraries Reference Manual*  
311868-001  
Describes the math libraries available on the iPSC system.
- iPSC®/2 and iPSC®/860 Network Queueing System Manual*  
312061-002  
Tells how to use and administer the network queueing system software.
- iPSC®/2 and iPSC®/860 Programmer's Reference Manual*  
311708-004  
Provides detailed information on all C and Fortran routines and commands for the iPSC system. (Replaces 311071-003, 311019-003, and 311831-001.)
- iPSC®/2 and iPSC®/860 Site Preparation Guide*  
312028-001  
Tells the customer how to prepare a site for the installation of an iPSC system.
- iPSC®/2 and iPSC®/860 System Acceptance Test User's Guide*  
311870-001  
Tells how to use the iPSC System Acceptance Test.
- iPSC®/2 and iPSC®/860 System Administrator's Guide*  
311014-006  
Describes the system administration tasks related to operating and maintaining an iPSC system. (Replaces 311842-001 and 311833-001.)

***iPSC®/2 and iPSC®/860 User's Guide***

311532-007

Overviews the iPSC system, including hardware and software architectures.  
Tells how to develop and run programs.

***iPSC®/2 and iPSC®/860 VME Interface Reference Manual***

311785-002

Describes the installation and development of software drivers for the VME  
Bus Interface Adapter board.

***iPSC®/2 Ada Commands and Routines Quick Reference***

311759-002

Summarizes the Ada routines and commands for the iPSC/2 system.

***iPSC®/2 Ada Program Development Guide***

311768-001

Describes and tells how to use the tools for developing Ada programs for the  
iPSC/2 system.

***iPSC®/2 Ada Program Development Guide Change Notice***

311929-001

Adds information on how to use the Ada cross-debugger for developing Ada  
programs for the iPSC/2 system.

***iPSC®/2 Ada Programmer's Reference Manual***

311767-002

Describes the Ada routines and commands for the iPSC/2 system.

***iPSC®/2 Ada Programmer's Reference Manual Change Notice***

312101-001

Changes the `getcube()` manual page.

***iPSC®/860 Basic Math Library User's Guide***

312128-001

Describes the basic linear algebra subroutines for iPSC/860 systems.

***iPSC®/860 C Compiler User's Guide (Revised)***

312130-002

Describes the C cross-compiler and compiler driver for iPSC/860 systems.  
(Replaces 312006-001.)

***iPSC®/860 Fortran Compiler User's Guide (Revised)***

312131-002

Describes the Fortran cross-compiler and compiler driver for iPSC/860  
systems. (Replaces 312006-001.)

*iPSC®/860 Multi-user Accounting, Control, and Scheduling Utilities Manual (Available 2/92)*

312261-001

Provides user, reference, and system administration information on the iPSC/860 multi-user accounting, control, and scheduling utilities.

*iPSC®/860 Parallel Performance Analysis Tools Manual (Revised)*

312139-002

Tells how to use the performance analysis software for the iPSC/860 system.

*iPSC®/860 ProSolver™-SES Manual (Revised)*

312141-002

Describes the iPSC/860 skyline equation solver application software.

## **iPSC® System DocPaks**

### *Ada Language DocPak (New)*

PSC386DPA

The Ada language DocPak contains user and reference manuals for the iPSC/2 Ada programmer. When you order this DocPak, you receive the following manuals:

*iPSC®/2 and iPSC®/860 User's Guide*

*iPSC®/2 Ada Programmer's Reference Manual*

*iPSC®/2 Ada Program Development Guide*

*iPSC®/2 Ada Commands and Routines Quick Reference*

### *C Language DocPak (New)*

PSC386DPC

The C language DocPak contains user and reference manuals for the C programmer. When you order this DocPak, you receive the following manuals:

*iPSC®/2 and iPSC®/860 User's Guide*

*iPSC®/2 and iPSC®/860 Programmer's Reference Manual*

*iPSC®/860 C Compiler User's Guide*

*iPSC®/2 and iPSC®/860 C Language Reference Manual*

*iPSC®/2 and iPSC®/860 C Commands and Routines Quick Reference*

*iPSC®/2 and iPSC®/860 Interactive Parallel Debugger Manual*

*iPSC®/2 and iPSC®/860 Interactive Parallel Debugger Commands Quick Reference*

***Fortran Language DocPak (New)*****PSC386DPF**

The Fortran language DocPak contains user and reference manuals for the Fortran programmer. When you order this DocPak, you receive the following manuals:

*iPSC®/2 and iPSC®/860 User's Guide**iPSC®/2 and iPSC®/860 Programmer's Reference Manual**iPSC®/860 Fortran Compiler User's Guide**iPSC®/2 and iPSC®/860 Fortran Language Reference Manual**iPSC®/2 and iPSC®/860 Fortran Commands and Routines Quick Reference**iPSC®/2 and iPSC®/860 Interactive Parallel Debugger Manual**iPSC®/2 and iPSC®/860 Interactive Parallel Debugger Commands Quick Reference*

## **Intel® Manuals**

*UNIX System V Release 3.2 NFS User's/System Administrator's Guide and Reference*  
465725-001

Describes the NFS programming environment and provides user and system administration information.

*UNIX System V Release 3.2 NFS Programmer's Guide and Reference*  
465726-001

Describes the NFS programming environment and tools.

*UNIX System V Release 3.2 TCP/IP Administrator's Guide and Reference*  
465728-001

Describes TCP/IP Network administration. (Replaces Excelan TCP/IP documentation.)

*UNIX System V Release 3.2 TCP/IP Programmer's Guide and Reference*  
465729-001

Describes the TCP/IP Network programming environment and provides information on programming tools. (Replaces Excelan TCP/IP documentation.)

*UNIX System V Release 3.2 TCP/IP User's Guide and Reference*  
465727-001

Describes the TCP/IP Network programming environment and provides user information. (Replaces Excelan TCP/IP documentation.)

***i860™ 64-Bit Microprocessor Assembler and Linker Reference Manual***

240436-003

Tells how to use the i860 microprocessor assembler and linker. When you order this manual, you also receive the following manuals:

***i860™ 64-Bit Microprocessor Object File Utilities Reference Manual***

464410-002

Provides reference information for using the i860 microprocessor object file utilities.

***i860™ 64-Bit Microprocessor Simulator and Debugger Reference Manual***

240437-003

Describes the i860 microprocessor debugger and simulator.

***i860™ 64-Bit Microprocessor Programmer's Reference Manual (Revised)***

240329-003

Tells how to use the i860 microprocessor.

***SYP301 Installation and User's Guide***

451684-001

Tells how to install and start the System Resource Manager. Also provides hardware technical data.

***UNIX Release R3.2 Manuals Literature Kit***

PSC386UXMR3.0

Consists of the following documents:

***UNIX System V Integrated Software Development Guide*** 465274-001

Supplies information needed to write application software and installable drivers for new hardware additions for UNIX.

***UNIX System V Introduction to UNIX System V*** 465273-001

Introduces you to UNIX System V Release 3.2 on PC AT compatible computers using Intel386™ and Intel486™ microprocessors.

***UNIX System V Network Programmer's Guide*** 465282-001

Describes the UNIX System network programming environment, and provides detailed descriptions of programming tools.

***UNIX System V Programmer's Guide, Vol. I*** 465277-001

Describes the UNIX System programming environment, and provides detailed descriptions of programming tools.

***UNIX System V Programmer's Guide, Vol. II*** 465278-001

Describes the UNIX System programming environment, and provides detailed descriptions of programming tools.

<i>UNIX System V Programmer's Reference Manual</i>	465276-001
Contains descriptions of commands, system calls, subroutines, libraries, file formats, macro packages, and character set tables.	
<i>UNIX System V Software Development Set</i>	465255-001
Provides UNIX System V Release 3.2 release notes.	
<i>UNIX System V Streams Primer</i>	465283-001
Introduces the UNIX System streams programming environment.	
<i>UNIX System V Streams Programmer's Guide</i>	465279-001
Describes the UNIX System streams programming environment, and provides detailed descriptions of programming tools.	
<i>UNIX System V System Administrator's Guide</i>	465280-001
Describes system maintenance tasks performed on the System Resource Manager under UNIX.	
<i>UNIX System V System Administrator's Reference Manual</i>	465281-001
Describes the UNIX System commands used by system administrators.	
<i>UNIX System V User's Guide</i>	465275-001
Provides a general description of UNIX.	

## Other Manuals

- C: A Reference Manual* - Harbison and Steele  
480628-001  
Describes the C programming language.
- Effective Fortran 77* - Michael Metcalf  
312201-001  
Describes the Fortran 77 programming language.
- Reference Manual For The Ada Programming Language* - ANSI/MIL-STD-1815A-1983  
311795-001  
Describes the Ada programming language.
- TCP/IP for UNIX Software Reference Guide (Release 2.6 Man Pages)* - CMC  
312171-001  
Provides software reference information for the TCP/IP Network programming environment associated with the CMC Ethernet board.

***TCP/IP for UNIX Release 2.6 User's Guide - CMC***

312170-001

Describes the TCP/IP Network programming environment associated with the CMC Ethernet board and provides user information.

***The C Programming Language - Kernighan and Ritchie***

122008-002

Describes the C programming language.

**The X Window System Manual Set - O'Reilly & Associates, Inc.**

311953-001

Consists of the following documents:

***Volume 0 - X Protocol Reference Manual***

ISBN 0-937175-40-0

Provides reference information on X Network Protocol, the language for communication between the X server and X client.

***Volume 1 - Xlib Programming Manual***

ISBN 0-937175-26-9

Tells how to program using the X library, the lowest level programming interface to the X window system.

***Volume 2 - Xlib Reference Manual***

ISBN 0-937175-12-9

Provides reference information for programming using the X library.

***Volume 4 - X Toolkit Intrinsic Programming Manual***

ISBN 0-937175-34-X

Tells how to program using the X Toolkit.

***Volume 5 - X Toolkit Intrinsic Reference Manual***

ISBN 0-937175-35-8

Provides reference information for programming using the X Toolkit.

***UNIX V - The Quick Reference Guide***

311533-003

Summarizes UNIX commands, buzzwords, C shell hints and standard directory layout.

# Documentation Flow Charts

2

## Introduction

This chapter shows you the relationships between the documents in the iPSC system technical documentation set. For more information on any of these documents, see the Preface of the document.

## How to Use These Flow Charts

Figure 2-2 gives you an overview of the documentation flow charts. Start by answering the question at the top of the figure: "What kind of iPSC system user are you?" Then follow the arrows, and turn to the appropriate page when directed, to learn which documents you should read and the order in which you should read them.

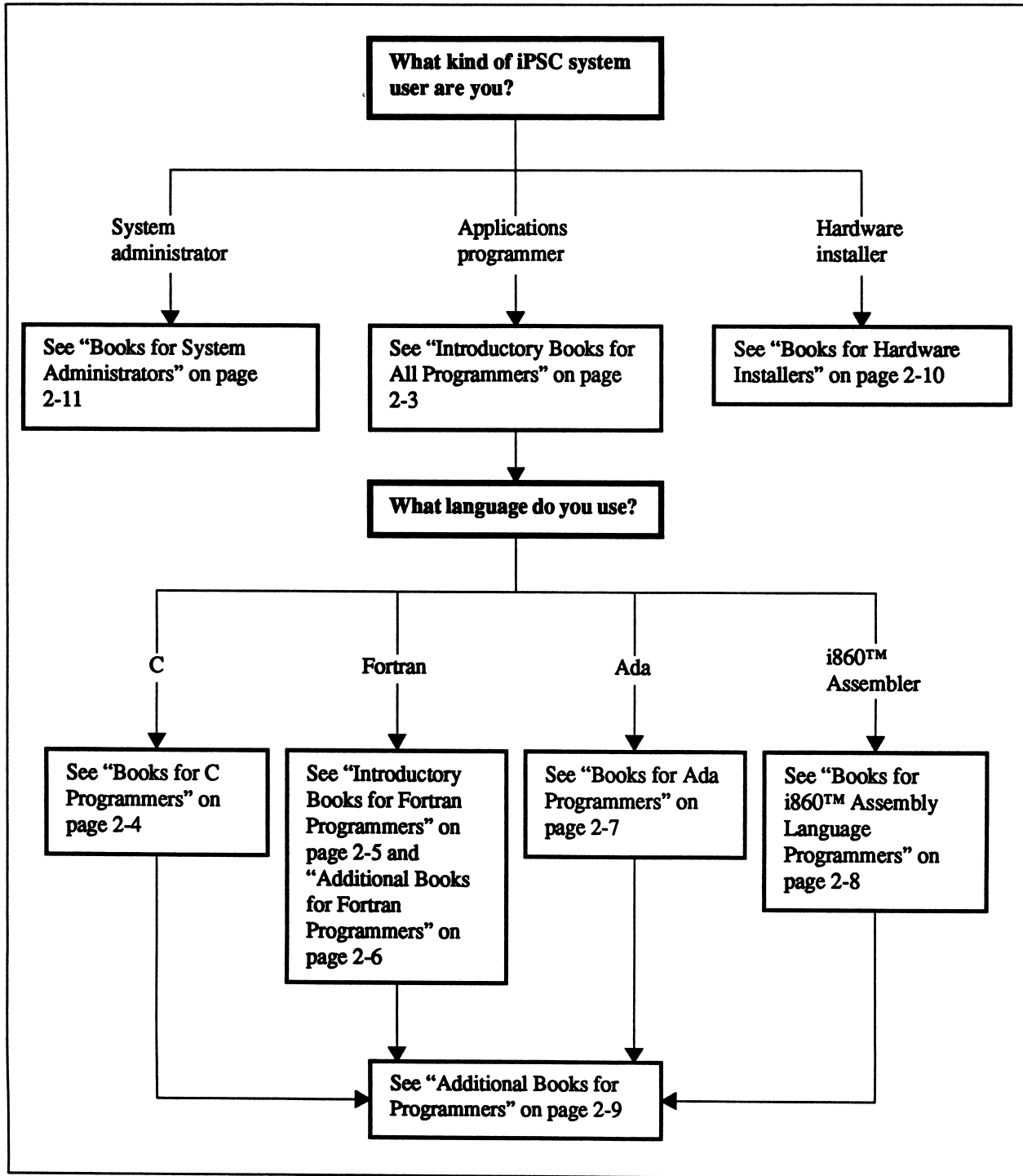


Figure 2-1. iPSC® System Technical Documentation Overview

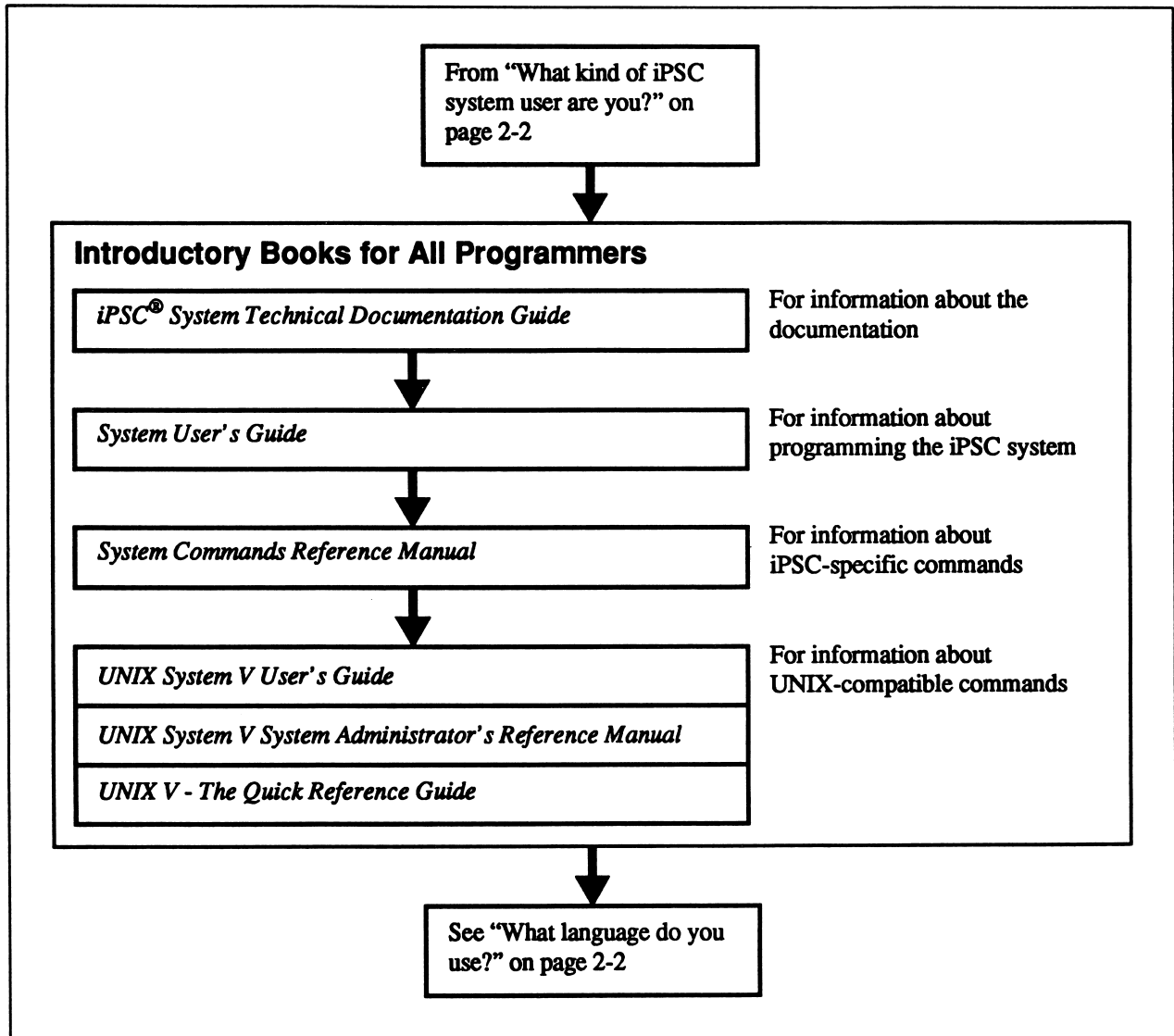


Figure 2-2. Introductory Books for All Programmers

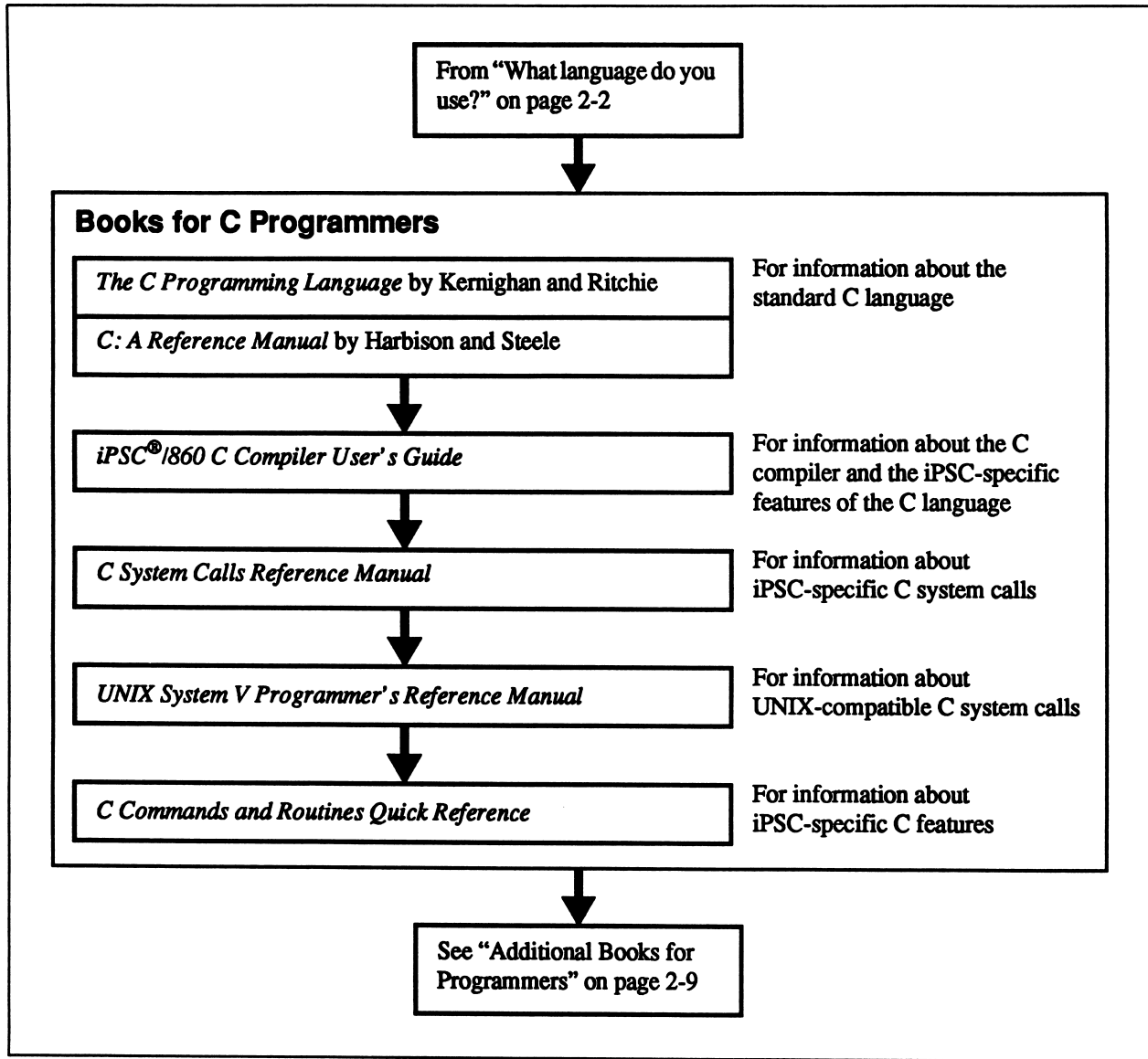


Figure 2-3. Books for C Programmers

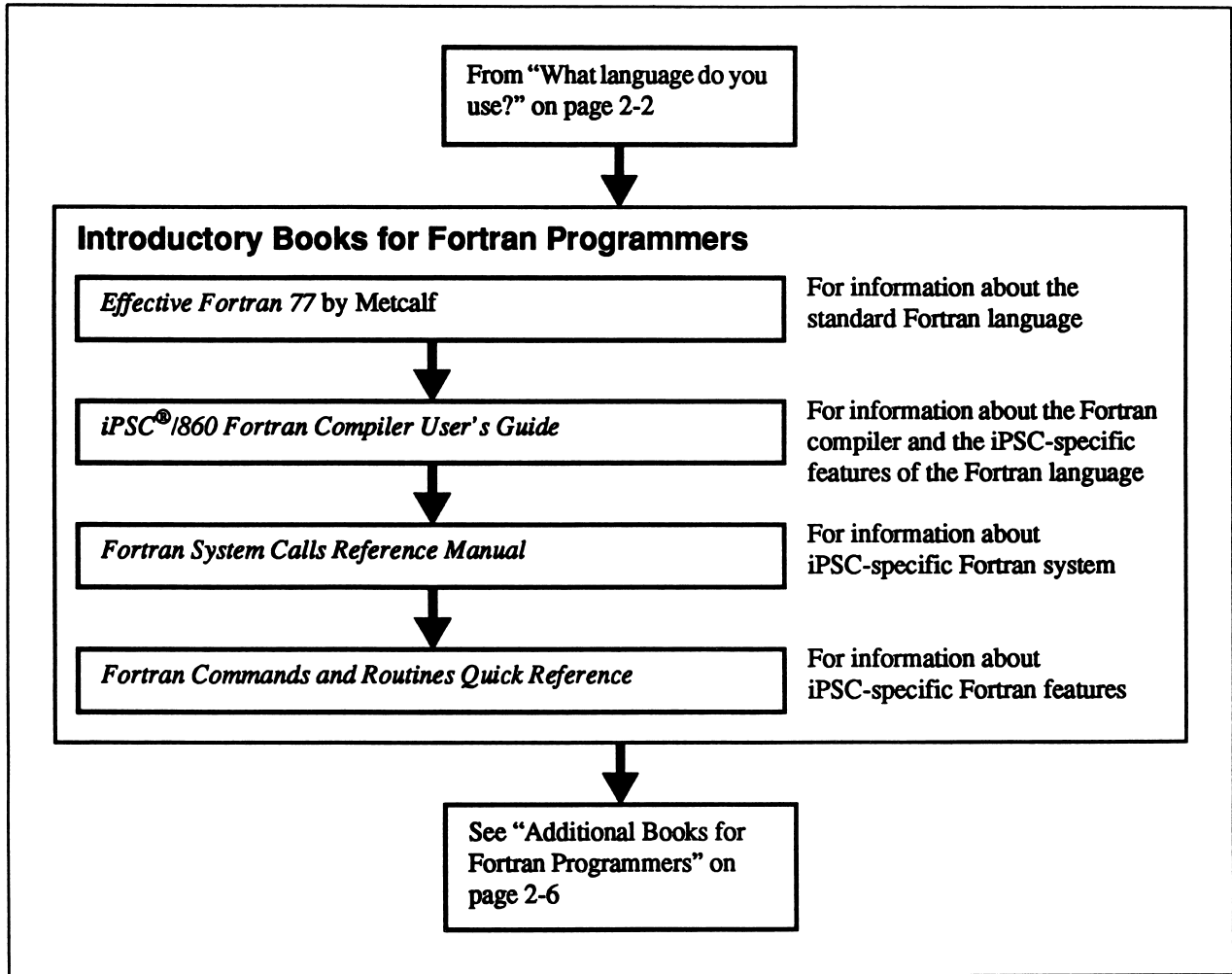


Figure 2-4. Introductory Books for Fortran Programmers

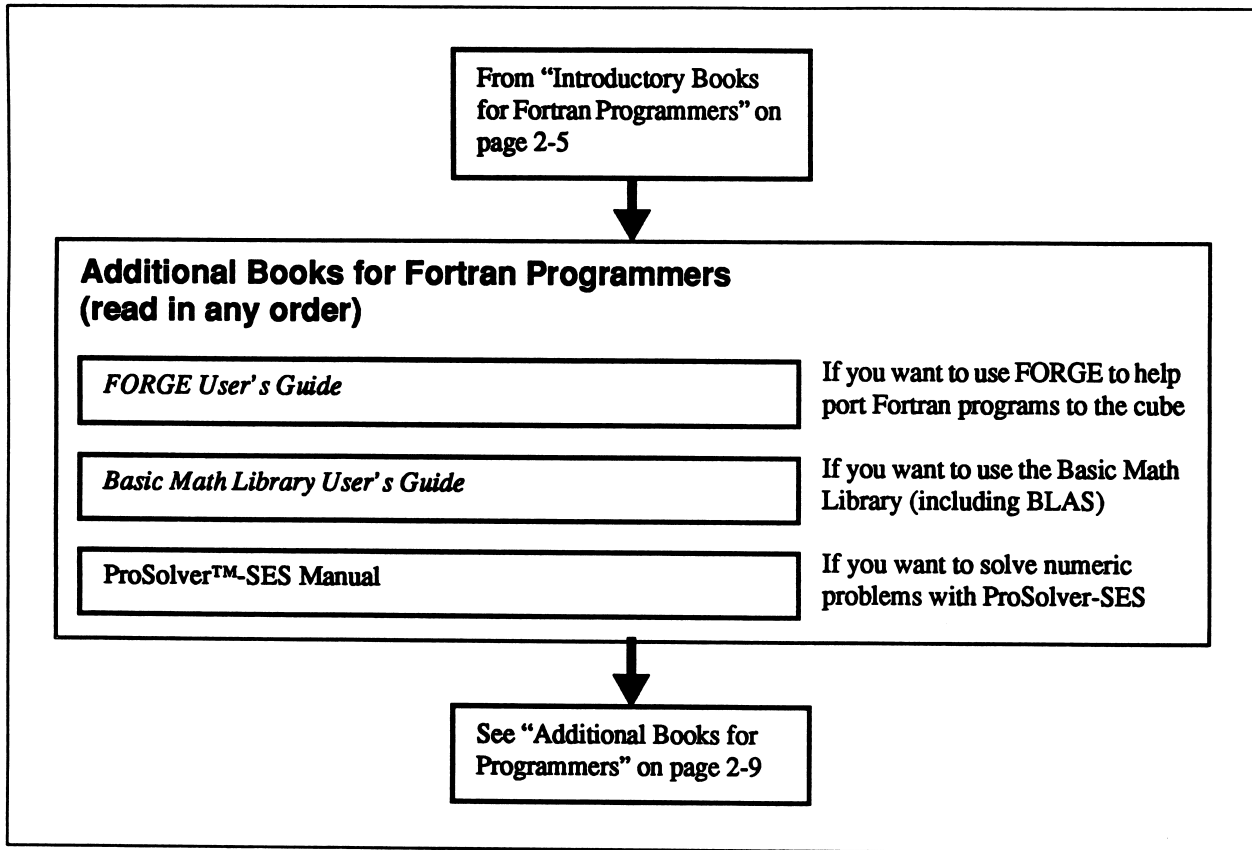


Figure 2-5. Additional Books for Fortran Programmers

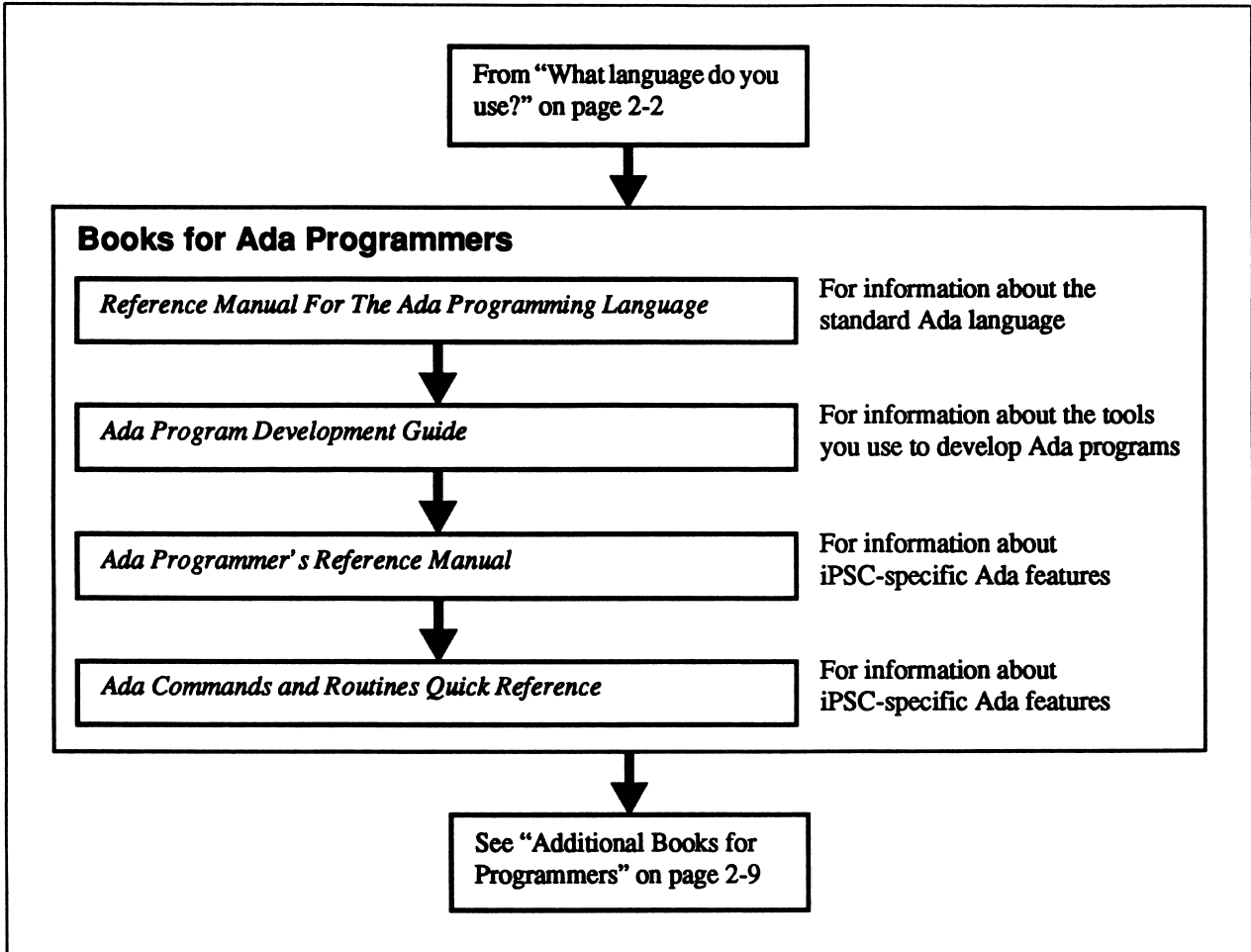


Figure 2-6. Books for Ada Programmers

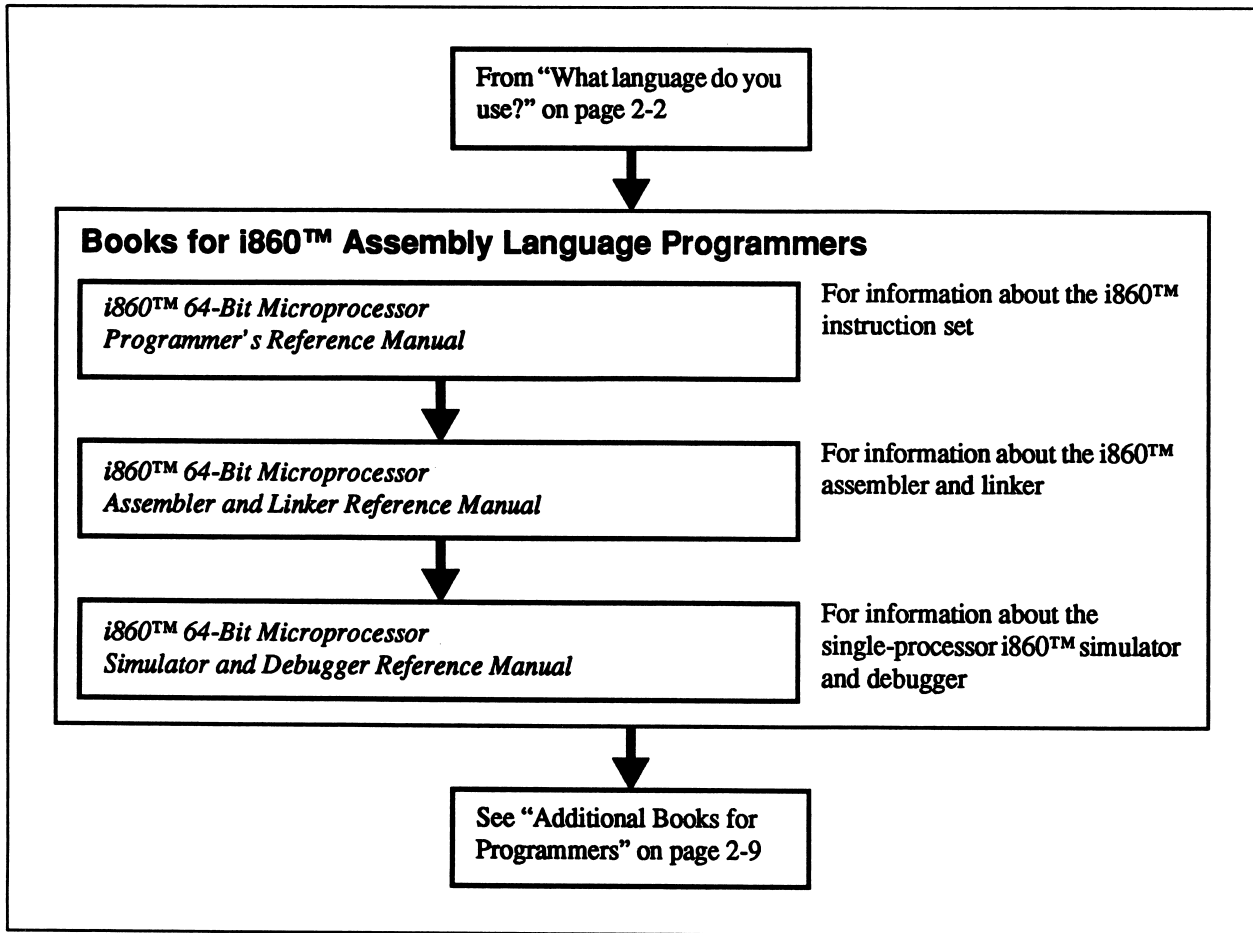


Figure 2-7. Books for i860™ Assembly Language Programmers

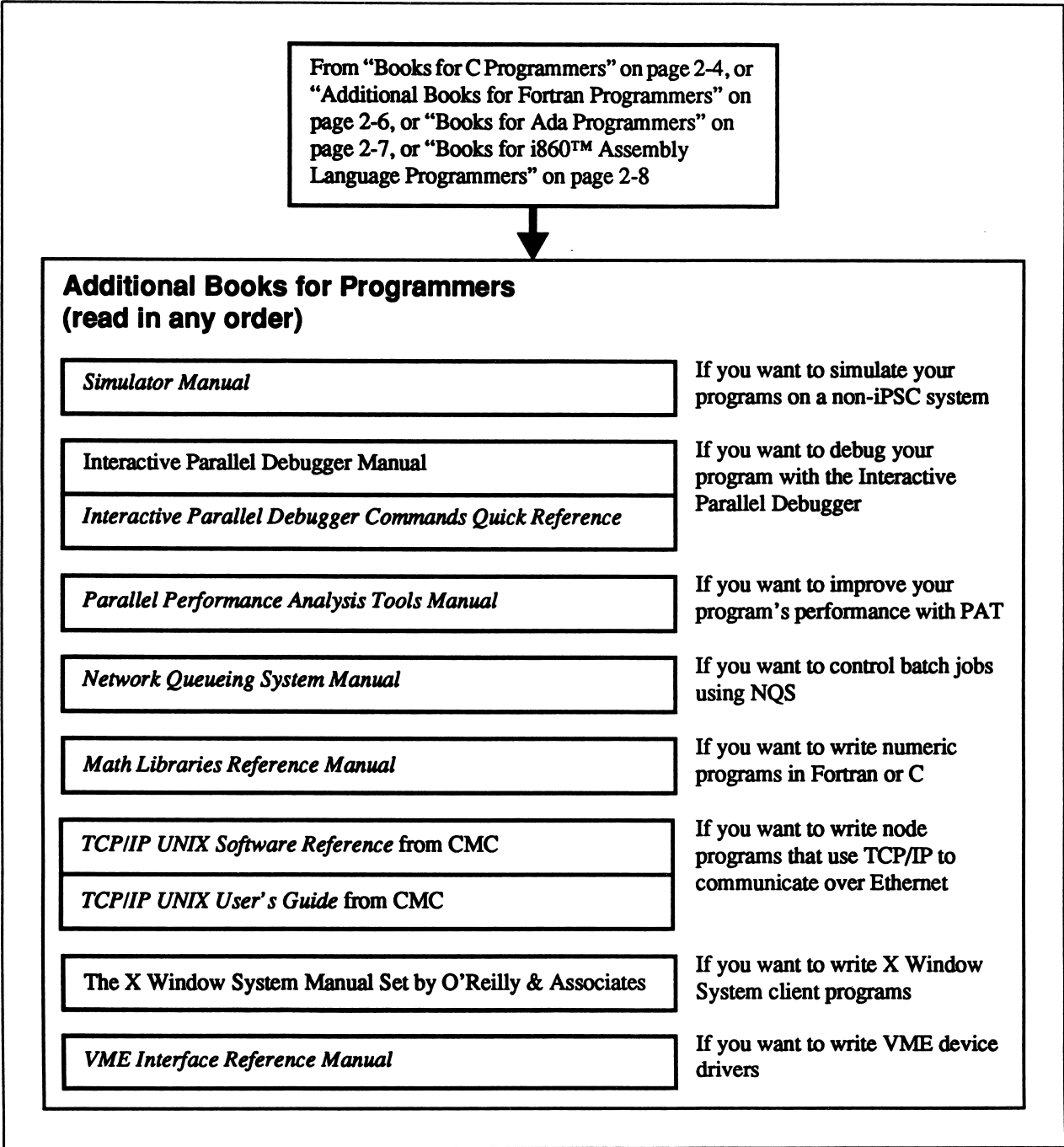


Figure 2-8. Additional Books for Programmers

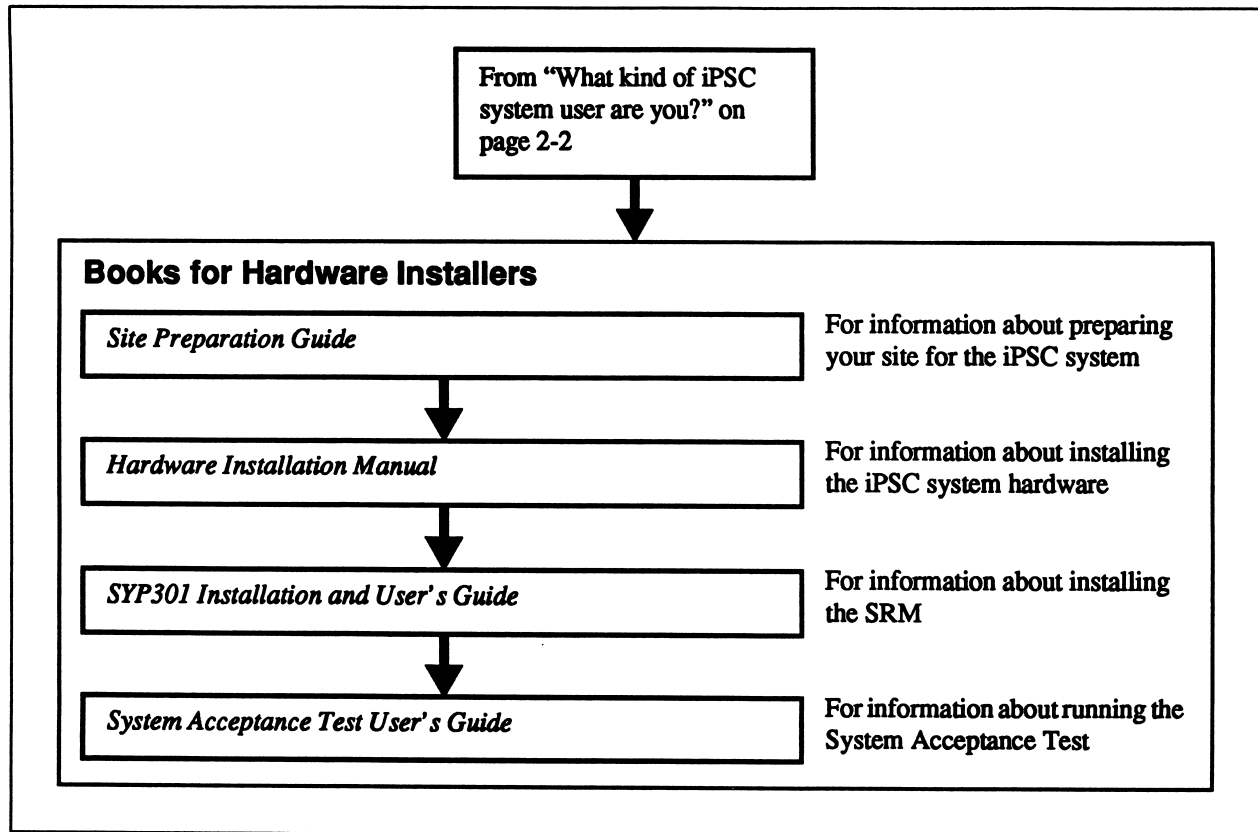


Figure 2-9. Books for Hardware Installers

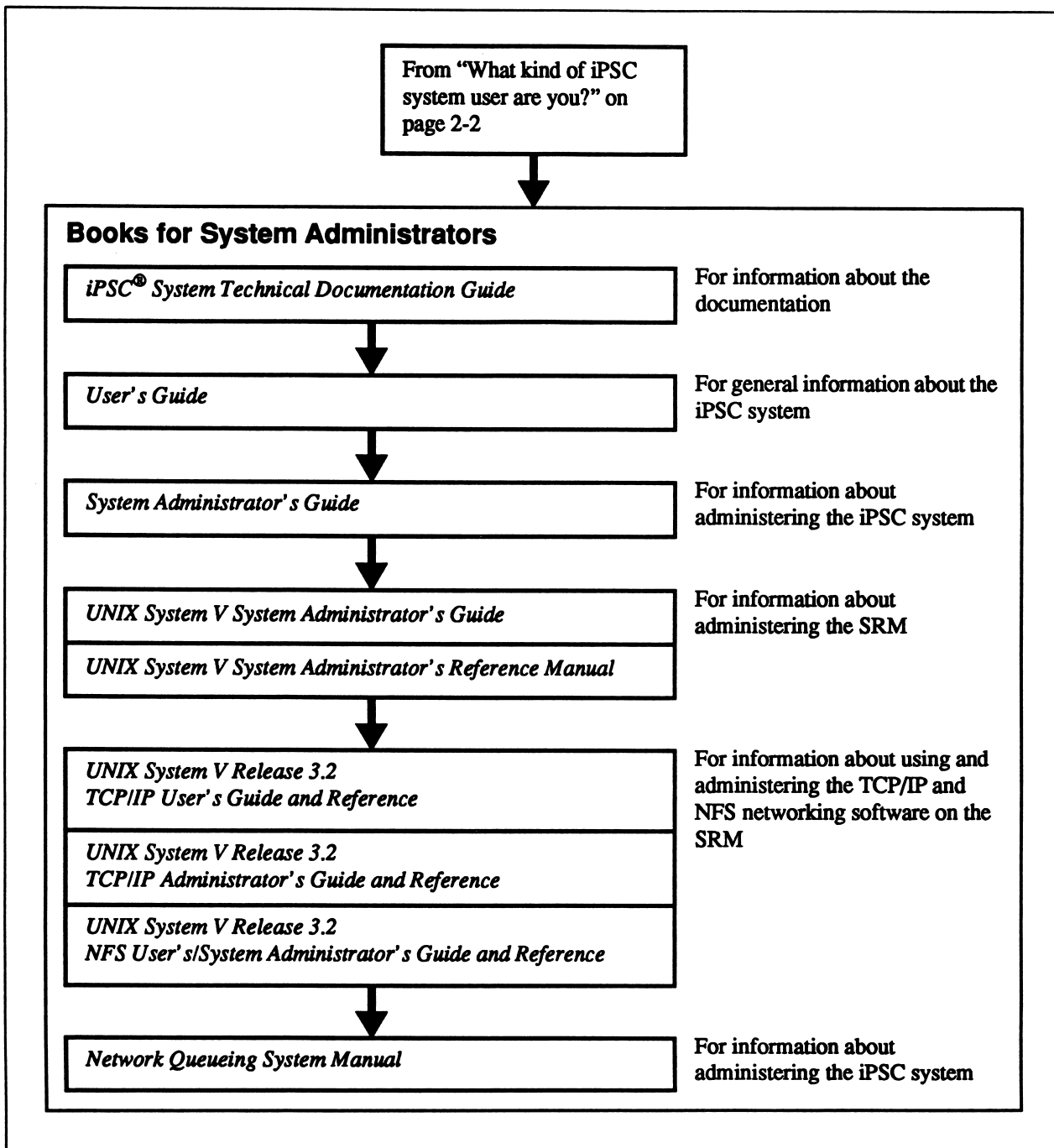


Figure 2-10. Books for System Administrators

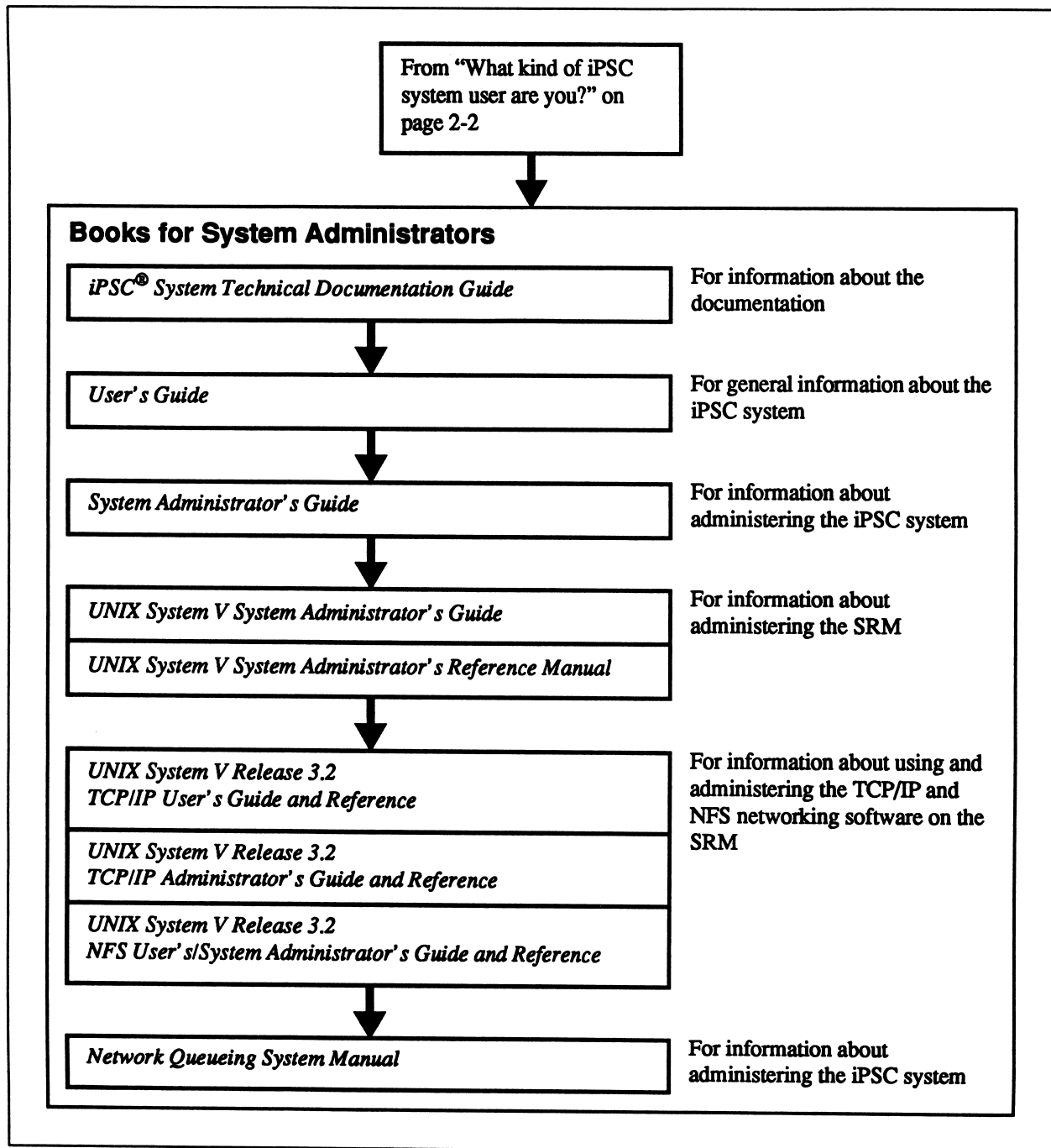


Figure 2-11. Books for System Administrators