

JAVA

Quick Reference

Michael M. Afergan



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Java Quick Reference
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Although only 18 years old, Michael has been programming for 10 years and has even taught Java overseas and a computer science class at MIT. He is currently attending Harvard University where he was accepted for early admissions. His official Web page is at <http://www.ai.mit.edu/people/mikea/resume.html>.

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To my parents, for supporting me no matter which paths I choose to take.

To Papa Bert, for inspiring me to march down all paths with determination and dedication.

To Dan, for always being awesome.

Contents at a Glance

Introduction	1
API Reference	5
Syntax Reference	307
Action Index	327
Index of Fields	333
Index of Methods	345
Index of Classes and Interfaces	415

Table of Contents

Introduction	1
What Does This Manual Contain?	1
How to Use This Manual	2
API Reference	5
java.applet	9
Class	10
Interfaces	16
java.awt	19
Classes	20
Interfaces	116
java.awt.image	119
Classes	120
Interfaces	139
java.io	145
Classes	147
Interfaces	187
java.lang	191
Classes	192
Interfaces	245
java.net	251
Classes	252
Interfaces	270
java.util	273
Classes	274
Interfaces	294
Exceptions	297
java.awt	299
java.io	299
java.lang	300
java.net	301
java.util	301
Errors	303
java.awt	304
java.lang	304
Syntax Reference	307
Abstract	309
Break	309
Catch	310
Class	310

Java Quick Reference

Continue	311
Do...While	311
Else	312
Extends	313
Final	313
Finally	314
For	315
If	315
Implements	316
Import	316
InstanceOf	317
Modifiers	317
Native	318
New	319
Package	319
Public	319
Private	320
Return	320
Super	321
This	321
Throw	322
Throws	322
Static	322
Static	323
Switch	323
Synchronized	324
Try	324
While	325
Action Index	327
Animation	329
Applets	329
Applications	330
Communication	330
Image Processing	330
Input and Output	331
Math	331
User Interfaces	332
Index of Fields	333
Index of Methods	345
Index of Classes and Interfaces	415

INTRODUCTION

What Does This Manual Contain?

The Java language consists of two parts: the *syntax* and the *libraries*. The Java syntax closely resembles that of C++ as it defines the structure of your programs. The Java API (application programming interface) libraries are the resources that you, as a programmer, have to work with. By using the libraries according to the rules of the Java's syntax, you are able to develop programs.

The API

The largest part of this book is devoted to the Java API libraries. These libraries were written by the developers of Java to enable you to create full-blown applets and applications.

The API libraries are made up of several packages, each containing several classes that are grouped by functionality. These classes are composed of *fields* and *methods*.

This manual lists and explains every *class* and *interface* as well as their respective fields and methods. The classes are in alphabetical order by package, and the summaries of many classes include examples of their use as well as the output of the code. In addition, every component has a picture, so you know how your interface will look before you even begin.

Indexes

To make this manual easy to use, there are several indexes that organize the "API Reference" section in various manners. At the end of this book, you will find indexes of all classes, methods, and fields. Each entry provides you with the full package and class name as well as the page number directing you to a detailed summary of the class.

Furthermore, you will also find at the back of this book the “Action Index,” which not only lists several of the major tasks that Java is used for, but also lists the classes necessary to accomplish those tasks.

How to Use This Manual

Designed as a handy reference, this manual can be used in a myriad of ways as described in the following sections.

API Reference

This section serves as the primary source of information for the manual. Each class, interface, exception, and error used in Java programming is listed here and explained in depth. In addition, every method and field within these classes and interfaces is explained in detail. For easy reference, they are in alphabetical order and grouped by package. Furthermore, to give you a jump start on your task, several classes have complete applets that serve as code examples.

Due to their unique natures, *exceptions* and *errors* are listed separately after the classes and interfaces. They too are in alphabetical order and grouped by package.

Syntax Reference

Even the most experienced programmer sometimes forgets the exact usage of a certain keyword or construct. Arranged alphabetically, this section provides you not only with an explanation of each keyword in the Java language, but also a general definition of the syntax and a specific example.

Action Index

Few programs can be written using only one class. The task-related “Action Index” provides you with a list of the several common uses of Java along with the packages, classes, and methods necessary to accomplish these tasks and the page numbers for finding these packages, classes, and methods in the “API Reference” section. Therefore, the “Action Index” enables you to learn not only what classes you need to use, but also how to use them.

Index of Classes and Interfaces

Because you may not always know the package of a class based solely on its name, this index lists all classes in alphabetical order and provides their complete names and page numbers. Conveniently located at the end of the manual, this index can also be used even if you do know the package of a class.

Index of Methods

Just because you know of a method doesn't mean that you know where it came from. This index enables you to look up a method based on its name and find its class as well as its page number.

Index of Fields

Similar to methods, it is not always clear which package a field belongs to. This index enables you not only to find the page on which the field is explained, but also the class to which it belongs.

API REFERENCE



API REFERENCE

This reference presents and explains the entire Java API. The API, which stands for *Application Programming Interface*, is a set of classes and interfaces that outline a set of platform-independent behaviors that establish the foundation of all Java applets and applications. Although any program depends on the strategies of the programmer, these classes and interfaces are the tools that all programmers use in creating Java applications.

