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Nota di contenuto	Cover; Copyright; Credits; About the Authors; About the Reviewers; www.PacktPub.com; Table of Contents; Preface; Chapter 1: The Science of Performance Tuning; Performance; Response time; Throughput; Utilization efficiency; Scalability; Performance tuning anti-patterns; The one-off; The wrong team; The lack of mandate; The clever developer; Software development and quality assurance; Software development with performance focus; Analysis; Design; Implementation; Performance testing and tuning; The iterative performance-tuning process; Test cases and iteration; Setting the baseline Running tests and collecting dataAnalyzing the data; Tuning and retesting; Test data; Documentation; The environment of performance tests; The software life cycle; Upgrades; Metrics; Tuning an enterprise stack; Network; Hardware; Operating System; Java Virtual Machine; Middleware; Application; Summary; Chapter 2: Tools of the Tuning Trade; The key features of performance tuning; Profiling; Profiling in production; Profiling a JVM; Profiling and sampling; VisualVM; Standard features; The features of plugins; Connecting to a JVM; Local JVM; Remote JVM; Monitoring a JVM; Features; Test scenarios A JMX connection to WildFlyLocal or remote WildFly server; Setting up VisualVM; Connection in VisualVM; Monitoring; OS tools; UNIX and Linux; Low CPU utilization; High CPU utilization; High resource contention; High disk utilization; OS X; Windows; WildFly tools; The

Command Line Interface; The WildFly Management Console; JBoss DMR; JConsole; Generating load; Apache JMeter; Building a basic test plan; Improving the test plan; Recording a web session using the JMeter HTTP proxy; Standalone and distributed load generation; Summary; Chapter 3: Tuning the Java Virtual Machine; JVM
JVM memory areasThe JVM stack and native stack; The heap; Other JVM memory concepts; GC; JVM memory management with the GC; Configuring the JVM; Default settings; Client versus Server VM; The stack; The heap; Setting the maximum heap size; Setting the initial heap size; Determining what maximum size the heap should be; Determining what initial size the heap should be; Setting the size of the young and old generations; Setting the size ratio of Eden and the survivor spaces; PermGen; Large objects; Large memory pages; The java.lang.OutOfMemoryError error; From the heap; From the PermGen Too large an arrayNot enough native threads; Memory leaks; A leak-finding Process; A step-by-step example using VisualVM; Types of GC strategies; The serial collector; The parallel collector; The concurrent collector; The G1 collector; Which collector to use; Setting VM parameters in WildFly; Having the relevant information available; VM parameters in production; verbose:gc; PrintGCDetails; PrintTenuringDistribution; loggc; Using tools; VM and GC stability; Summary; Chapter 4: Tuning WildFly; WildFly's history; WildFly's architecture; Various subsystem configurations
The thread pool executor subsystem

Sommario/riassunto

Packed with practical examples, this book looks at a different aspect of performance tuning in each chapter and shows you how to apply them to their existing Java applications. Anyone with an interest in learning more and improving the performance of Java-based technology in general, all the way to WildFly in particular, will find this book useful.