

CONCURRENCY OF COMPONENTS USING JAVA SPACES

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INTRODUCTION

This tutorial provides a comprehensive guide to JavaSpaces and Jini, the new distributed systems technology from Sun Microsystems. This tutorial focuses on two aspects . One is an overview on Jini's place in the world, provides details on getting started with the technology and deploying its actual use. This tutorial, however assumes prior knowledge of Java and hence does not provide a tutorial to Java itself.

Chapter 1 provides a sample simulation. It introduces and describes an experimental setup, involving multiple components working together. UML diagrams of the set up are provided to elucidate the nuances of software design. An improvement on the single threaded simulation, A multi threaded version is also introduced to show concurrency of components using threads communicating through Java datastructures.

Chapter 2 introduces Jini, Its vision , Jini's place in the worlds networking environment. It explains how to download and install Jini. A simple Hello World program is shown to explain its actual working and also details on How to compile and run a Jini program.

Chapter 3 introduces JavaSpaces, Sun's JavaSpaces storage service , which operates a layer atop Jini . This service provides an extremely useful object storage engine. This chapter also explains how to download and install JavaSpaces.

Chapter 4 explains a simply "Hello World " program using Java Spaces and explains in detail how to compile and Run a JavaSpaces program .

Chapter 5, we return to our simulation of Chapter 1 and shows how Java Spaces can be used as communication mechanism among threads, and various advantages of using JavaSpaces.

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