



SUN CERTIFICATION

Steven Hawkes

HAS FULFILLED ALL REQUIREMENTS AS A
SUN CERTIFIED PROGRAMMER

FOR THE JAVA™ 2 PLATFORM

On December 22, 2000

A handwritten signature in black ink, appearing to read "Scott McNealy".

Scott McNealy, President, Chairman, and CEO of Sun Microsystems, Inc.

A handwritten signature in black ink, appearing to read "Bill Richardson".

Bill Richardson, Vice President and General Manager of Sun Educational Services

