Operating Systems

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September 28, 2014

Introduction

Operating systems provide an interface for computer users that permits them to gain access without needing to understand how the computer works. The software needed to achieve this is complex and this course introduces students to some of the details of design and implementation.

Aims

This course unit introduces students to the principles of operating system design and to the prevailing techniques for their implementation. The course unit assumes that students are already familiar with the structure of a user-program after it has been converted into an executable form, and that they have a rudimentary understanding of the performance trade-offs inherent in the choice of algorithms

and data structures. Pertinent features of the hardware-software interface are described, and emphasis is placed on the concurrent nature of operating system activities. Two concrete examples of operating systems are used to illustrate how principles and techniques are deployed in practice.

Additional reading

Operating system concepts (8th edition)	Silberschatz, Abraham and Peter Baer Galvin and Greg Gagne	2009
Operating system concepts with Java (8th edition)	Silberschatz, Abraham and Peter Baer Galvin and Greg Gagne	2010

Contents