Introduction to System Administration [1]

This guide is a teaching and reference document for people who manage the operation of Cray Research computer systems running the UNICOS operating system. It contains information needed in the administration of various UNICOS features available to all UNICOS systems.

This manual provides information on the use and administration of the following UNICOS products:

- Accounting: Cray Research system accounting (CSA) and standard UNIX accounting.
- Automatic incident reporting (AIR), a UNICOS facility that allows you to automate the monitoring of UNICOS components, such as online tapes, Network Queuing System (NQS), Transmission Control Protocol/Internet Protocol (TCP/IP), and the kernel. This facility allows you to monitor existence, ability to respond, and ability to function. This manual also contains an appendix that provides descriptions of the tests available with the automatic incident reporting (AIR) feature.
- Fair-share scheduler (also referred to as *fair-share*), a UNICOS facility that provides resource control and allows a machine to be shared among groups in an organized fashion.
- File system quotas, a UNICOS feature that allows you to control the amount of file system space in blocks and the number of files used by each account, group, and user on an individual basis.
- File system monitor, a UNICOS feature that improves the usability and reliability of the system by observing the amount of free space on the mounted file systems and taking remedial action if warning or critical thresholds are reached.
- System activity and performance monitoring, including real-time performance monitoring with the `sam` utility or the standard UNIX system activity package, and disk use monitoring.
- Unified Resource Manager (URM), a job scheduler that balances the demands of both batch and interactive sessions.

This guide replaces neither experience nor other documents that more fully describe specific system areas. Familiarity with the references listed in the preface is necessary to effectively manage Cray Research computer systems running UNICOS.