COMPAQ

Software Product Description

PRODUCT NAME: Tru64 UNIX Advanced File System Utilities
Version 5.1

SPD 44.52.12

DESCRIPTION

Compaq Tru64™ UNIX Advanced File System Utilities is a layered product for Tru64 UNIX systems that extends the management capabilities of the Advanced File System. The Advanced File System is bundled with Tru64 UNIX.

Advanced File System Utilities helps you:

- Spend less time managing file systems

- Improve performance

- Keep your data online during routine maintenance

- Extend the capacity of your files and file systems

The modern design of Advanced File System Utilities (and the underlying Advanced File System) provides greater configuration flexibility and reduces the amount of time required to manage file systems. The physical storage layer is managed independently of the directory layer. As storage needs change, you can resize file systems by adding or removing disks — without taking the system down or interrupting your users. Users can reclaim accidentally deleted files — without requiring the assistance of the operations staff.

Advanced File System Utilities includes a Motif based graphical user interface (GUI) that allows system administrators to easily manage their file systems — both locally and remotely. The graphical displays, menus, and online help make it easy to perform operations — such as creating file systems, adding and removing volumes, and making clones of file systems for online backup. The GUI uses green, yellow, or red Alert icons to indicate system health at a glance.

The GUI for Advanced File System Utilities is completely integrated with the Common Desktop Environment (CDE) for launching and running online help. The GUI is also integrated with Performance Manager, so that file system metrics can be passed from Advanced File System Utilities to Performance Manager.

Advanced File System Utilities provides added performance-tuning capabilities. The `balance` command balances the percentage of free space among the volumes in a multivolume file domain. System administrators can also spread the I/O load and move files among multiple disks in a single file domain without affecting the file directory tree, file names, or active applications.

Advanced File System Utilities extends system availability by providing access to online data during routine maintenance. Cloning creates a read-only snapshot of a fileset while the system remains on line, so that you can back up the clone while users and applications are accessing the data in the original fileset. You can also add and remove volumes and balance space usage in file domains, while the data remains on line and in use.

Adding Advanced File System Utilities provides generous configuration capabilities. A file domain may contain up to 256 volumes. The maximum volume size is 1 TB - 512 K. The maximum number of files in a fileset is 2^{31}. (This number is limited by the length of the tag used to uniquely identify a file in a fileset.) The maximum size of an Advanced File System file and fileset is 16 TB - 512 K ($2^{13} *$ 2^{32}) — with an 8 K page size and a 31-bit page number. 2^{32-1} filesets and file domains can be mounted. Multi TB file systems can be established by using multiple volumes to create an AdvFS domain.

Advanced File System Utilities features include:

- Motif based graphical user interface for increased ease of use and efficiency in managing file systems

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- Online addition and removal of disks to expand or contract the file system

- Multidisk support and disk spanning for large file systems

- Capacity `balance` command to equalize storage space across multiple volumes

- Fileset cloning for backups or testing

- File undelete

- File migration between disks while the file is in use

- Remote management via GUI

- I/O load balancing. This includes the ability to identify and then subsequently move I/O intensive files to less contentious volumes and/or locations on these volumes.

- The relocation of the AdvFS transaction log to a separate volume.

- SNMP agent for configuration monitoring

- Japanese localization subsets that are available in Version 4.0E and later releases

HARDWARE REQUIREMENTS

Advanced File System Utilities Version 5.1 operates on any supported Alpha CPU with Tru64 UNIX Version 5.1. There are no restrictions on the disk devices supported beyond the valid configurations defined in the Tru64 UNIX Version 4.0 or later Software Product Descriptions.

Disk Space Requirements

Disk space in Kilobytes required for use:

	root	/var	/usr
Advanced File System Utilities	0	0	300
Reference Pages (man Pages)	0	0	100
Graphical User Interface (GUI)	30	20	11000
Agent	0	50	800
Japanese Localization GUI	0	1	661
Japanese Localization Agent	1	0	27
Total	31	71	12888

These counts refer to the disk space required in these file systems. The sizes are approximate; actual sizes may vary depending on the user's system environment, configuration, and software options.

SOFTWARE REQUIREMENTS

- Tru64 UNIX operating system Version 5.1 or later

- Advanced File System

- CDE Minimum Runtime Environment

- A graphic workstation is required to support the GUI; XTERM hardware devices are not supported.

OPTIONAL SOFTWARE

Compaq StorageWorks Software Package

The Compaq StorageWorks™ Software package includes two key storage products:

- Logical Storage Manager

- Advanced File System Utilities

StorageWorks Software delivers high availability, online configuration, optimal file system performance, and data protection.

Logical Storage Manager

The Tru64 UNIX Logical Storage Manager (LSM) is an integrated, host-based solution to data storage management, providing concatenation, striping, mirroring, RAID 5, hot sparing, and a graphical user interface that allows data storage management functions to be done transparently — without disrupting users or applications. With LSM, you can also mirror the root and swap partitions, and place existing file systems and LSM volumes under LSM control. LSM manages storage as a single entity in both cluster and single-node environments.

LSM is a separately licensed software product for Tru64 UNIX. See SPD 51.24.07 for more information.

TruCluster Server

TruCluster Server Version 5.1 provides highly available and scalable solutions for users in mission-critical computing environments. It delivers easier, more sophisticated UNIX clustering capabilities by adding a fully clustered shared file system to the rich functionality already found in the Compaq TruCluster products.

By combining the advantages of symmetric multiprocessing, distributed computing, and fault resilience, a cluster running TruCluster Server Version 5.1 offers its users high availability while providing scalability beyond the limits of a single system. TruCluster Server also significantly reduces, but does not eliminate, the impact of hardware and software failures.

See SPD 70.79.04 for more information.

SOFTWARE LICENSING

This software is furnished under the licensing provisions of Compaq Computer Corporation's Standard Terms and

Conditions. For more information about Compaq licensing terms and policies, contact your local Compaq office or your Compaq authorized reseller.

LICENSE MANAGEMENT FACILITY SUPPORT

This layered product supports the Tru64 UNIX License Management Facility. License units for this product are allocated on an Unlimited System Use basis. For more information on the License Management Facility, see the Tru64 UNIX operating system Software Product Description (SPD 70.70.*xx*) or the Tru64 UNIX documentation.

GROWTH CONSIDERATIONS

The minimum hardware and software requirements for any future version of this product may be different from the requirements for the current version.

DISTRIBUTION MEDIA

This product is distributed with the Tru64 UNIX operating system CD-ROM. A software license is required to use this product.

SOFTWARE WARRANTY

Warranty for this software product is provided by Compaq with the purchase of a license for the product as defined in the Software Warranty Addendum of this SPD.

The above information is valid at time of release. Please contact your local Compaq office for the most up-to-date information.

ORDERING INFORMATION

Software Licenses: QL-0EGA*-AA
Software Documentation (hardcopy): QA-0EGAA-GZ
StorageWorks Software
    for Tru64 UNIX: QB-5RXA*-**
Software Product Services: QT-0EGA*-**

*   Denotes variant fields. For additional information on available licenses, services, and media, see the appropriate price book.

SOFTWARE PRODUCT SERVICES

A variety of service options are available from Compaq. For more information, contact your local Compaq office or your Compaq authorized reseller.