

**Product:** FileServ™ for UNIX® Version 4.3

**Operating Systems:** IRIX® 6.5.6M, 6.5.7M, 6.5.8M, 6.5.9M and 6.5.10M  
SPARC™ Solaris™ 7 and 8

**Date:** February 2, 2001

**NOTE:** (1) The operating system must always be run in US\_English. (2) FileServ supports the maintenance (M) version of IRIX 6.5.x, as opposed to the feature (F) version. (3) To obtain details on supported application server platforms, contact your FileServ sales representative.

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## Prerequisites

Before installing FileServ, install the software listed in the table below:

Software	IRIX	Solaris
A valid ANSI C compiler	X	X
Perl 5	X	X
Veritas Vxfs Version 3.3.3 + patch1	-	X
VolServ™	X	X

## Purpose of This Release

This release contains enhancements and corrections to problems encountered in previous versions. A summary of major items follows:

### NEW DRIVE SUPPORT (#527)

- Additional drives supported by this release of FileServ:
  - IBM 3580 LTO - Solaris only until supported by IRIX tpsc device driver

### NEW OS SUPPORT (#507)

- Add support for Solaris 8
  - Requires Veritas VxFS version 3.3.3 + patch01
- Add support for IRIX 6.5.10m

### MAXIMUM NUMBER OF TAPE COPIES RAISED(#493)

- The maximum number of tape copies for a file has been raised to four.

### FILESTEERING BY DRIVEPOOL(#517)

- The capability to specify which drives are used in making individual tape copies has been added to the filesteering filesize.config file. This capability allows a user with multiple archives to steer where different tape copies are made. This can be accomplished by creating different storage drivepools for each archive and then specifying the drivepool to be used for each copy in the filesize.config file.

## Fixed Problems/Enhancements

The following table lists fixed problems:

Operating System	Problem Number	Description of Problems Fixed in Version 4.3
All	393	Install Script - Change default syslog to 5
All	439	The fs_bld_maplist script fails on upgrade & not run on install
All	456	fileserv started as fsadm does not produce cores
Solaris	486	Cannot map filesystem due to buffer size
IRIX	487	Block reservation is lost after mount
All	488	File create and immediate rename leaves it unassociated
All	489	Fix memory leaks
All	490	fs_dump command can fail if a file is removed while it is running
All	491	Fix auto_fileserv to work with root shell of sh
IRIX	492	Add a check for DST to verify position
All	493	Changed maximum number of tape copies to 4

Operating System	Problem Number	Description of Problems Fixed in Version 4.3
All	495	Crtl-C during a fsretrieve while mo is flipping causes crash
All	496	DTF/DTF2 fs_sysparm Comment Wrong
All	497	fs_copyman not intializing move requests properly
All	498	Memory overwrite in scsi code when using scsi pass through device
All	499	Policy will trashcan file if db valid tape != disk
All	500	Checkpoint tar command needs to follow links
All	503	Mapping has /fs link hardcoded instead of using \$FS_HOME
All	504	fs_dump fails if mount point not at root
All	505	fsckp script doesn't handle /mnt/vol05 mntpt
All	506	fspolicy not initializing hash lists
All	507	Add support for solaris 8 and irix 6.5.10
All	508	Change fs_bld_maplist to space out fs_map_dir
All	509	Add logfile to newfslog script
All	510	mda2 perf point causes fs_slave core on bmap
All	511	A Crtl-C causes fs_map_dir to core
All	512	Fix additional memory leaks
All	513	For DTF drives check sense for "recover" status and perform auto recover
All	514	Update install manual errors
All	516	fsup Alias Need To Be Modified for fslock3
All	517	Add drivepool to file steering
All	518	During install the fsvsinstall fails with a syntax error
All	519	fsmederr man page out of date
All	520	Verification of drive type names is incorrect
All	521	fsrecover fails - fd leak, mem alignment problems
All	524	fs_cron_template needs to be updated
All	525	Install Script - Mapping directory not explained
Solaris	527	Add LTO support
All	531	Add check for were perl is installed
All	532	Wrong makefile included for api examples

## Known Problems

The following table lists unresolved problems:

Operating System	Problem Number	Description of Known Problems in Version 4.3
IRIX Solaris	588 936 958	<p>When <code>fsundelete</code> command is executed, occasionally it does not completely undelete all the files on the undelete list because of a timing issue.</p> <p><b>Workaround:</b> To overcome this problem, run the <code>fsundelete</code> command again on the unrestored file(s). The <code>fsundelete</code> command does not retrieve any secondary copies of files that were deleted, only the primary copy is retrieved. Do not use the <code>-f</code> option (force) with the command on a file that resides on disk only. The command will fail and an error message will appear instructing you how to correctly execute the command.</p>
IRIX Solaris	904	<p>Occasionally, the <code>fsrmcopy</code> command incorrectly reports that it successfully removed a file. This happens if the file is open and <code>fsrmdiskcopy</code> is run on that file.</p> <p><b>Workaround:</b> To ensure that the file was removed, run <code>fsfileinfo</code> again. To successfully run the <code>fsrmcopy</code> command on a file, the user must have read, write or execute permissions.</p>

## Documentation

In addition to the FileServ software, the distribution CD contains the FileServ technical documentation as PDF files as well as an Adobe® Acrobat® Reader. The Reader allows you to view and navigate the electronic book files yet preserves the page design and graphics from the printed books.

## Order Printed Books

To order additional printed books, complete this form and send it to your ADIC Sales Representative:

Version 4.1 Book	Quantity	Version 4.1 Book	Quantity
FileServ Overview, #600942		Error Messages, #600944	
Installing FileServ, #600938		Quick reference card, #600939	
Command Reference, #600940		Complete Set. Contains all 5 books and one quick reference card.	
Administrative Tasks, #600943			
<b>Please print Name:</b>			
Company:			
Address:			
Telephone:		Email:	

## Related Publications

To receive access to the secured site on our home page containing technical product information (Release Notes, Product Alerts, Product Bulletins, Manuals), send email to [swpubs@adic.com](mailto:swpubs@adic.com) and include the items below. In return, ADIC will send you instructions and a password.

- Name.
- Company.
- Address.
- Telephone number.
- Fax number.
- Your email address.
- Product serial number. Or, if you are a current ADIC reseller, enter “reseller.”

## Supported Drives

FileServ supports the following drives on the specified platforms:

Drive Type	Supported on IRIX	Supported on Solaris
Ampex DST 310. Ampex DST 312. See <b>NOTE</b> below.	Yes	No
Fujitsu M8100. Configure this drive as an IBM 3590B1A.	Yes	Yes
HP 2600FX MO. HP 5200EX MO.	Yes	No
IBM 3590B1A. IBM 3590E1A. Do not configure these drives on an RS-422 port.	Yes	Yes
IBM 3580 LTO	No	Yes
Quantum DLT 4000. Quantum DLT 7000. Configure this drive as a DLT 4000. Quantum DLT 8000. Configure this drive as a DLT 4000.	Yes	Yes
Sony AIT-1 SDX-300. Sony AIT-2 SDX-500.	Yes	Yes
Sony GY-10. Sony GY-2120. Sony GY-8240. See <a href="#">"Modify IRIX Kernel for SONY DTF-2 Drive" on page 7</a> of these "Release Notes." During initial configuration on VolServ, set these drives up to support both DTF1 and DTF2 media types.	Yes	Yes
Storage Technology 4480. Storage Technology Timberline 9490-E. Storage Technology 9840.	Yes	Yes
<p><b>NOTE:</b> To tune the kernel for DST drives, follow the steps below:</p> <p>Step 1: Login as <code>root</code>.</p> <p>Step 2: Run <code>systemd -i</code>.</p> <p>Step 3: Enter <code>maxdmasz 513</code>.</p> <p>Step 4: Enter <code>quit</code>.</p> <p>Step 5: Reboot the system.</p>		

## Update `sysparm` File with Media Capacity

After an initial installation, if you add or change a Sony AIT-2, IBM 3590E1A, Quantum DLT 7000, or Quantum DLT 8000 drive type, update the system parameters to reflect the new media capacity by following the steps below:

**Step 1.** Log in as `root`.

**Step 2.** Edit the `fs_sysparms` file.

```
# vi /$FS_HOME/sysparms/fs_sysparms
```

**Step 3.** If you are adding an AIT-2 drive, update the `DEF_MED_SPC_AIT` parameter definition to be as shown below if you are using 170m tape:

```
DEF_MED_SPC_AIT=35000000000;
```

**Step 4.** If you are adding an AIT-2 drive, update the `DEF_MED_SPC_AIT` parameter definition to be as shown below if you are using 230m tape:

```
DEF_MED_SPC_AIT=50000000000;
```

If you are adding an 3590E1A drive, update the `DEF_MED_SPC_3590` parameter definition to be as shown below:

```
DEF_MED_SPC_3590=20000000000;
```

If you are adding a DLT 7000 drive, update the `DEF_MED_SPC_CTIV` parameter definition to be as shown below:

```
DEF_MED_SPC_CTIV=35000000000;
```

If you are adding a DLT 8000 drive, update the `DEF_MED_SPC_CTIV` parameter definition to be as shown below:

```
DEF_MED_SPC_CTIV=40000000000;
```

**Step 5.** Save the changes and quit the edit session.

## Modify IRIX Kernel for SONY DTF-2 Drive

IRIX only: Update the SGI kernel to be aware of the SONY DTF-2 drive, by following the steps below:

**Step 1.** Log in as `root`.

```
# su root
```

**Step 2.** Search the `scsi` file and look for the words “GY-8240.”

```
# vi /var/sysgen/master.d/scsi
```

**Step 3.** If that text is not found, add the following entry to the file for your drive:

```
/* SONY GY-8240 drive */
{ SONYGY, TPGY2120, 4, 7, "SONY", "GY-8240", 0, 0, {0, 0, 0, 0},
MTCAN_BSF|MTCAN_BSR|MTCANT_RET|MTCAN_CHKRDY|MTCAN_PREV|
MTCAN_SEEK|MTCAN_APPEND|MTCAN_SILI|MTCAN_VAR|MTCAN_SETSZ|
MTCAN_CHTYPEANY | MTCAN_COMPRESS,
20, 100*60, 10*60, 9*60, 9*60, 16384, 256*1024,
tpsc_default_dens_count, tpsc_default_hwg_dens_names,
tpsc_default_alias_dens_names,
{0}, 0, 0, 0,
0, (u_char *)0 },
```

**Step 4.** Rebuild the kernel.

```
# autoconfig -f
```

**Step 5.** Reboot the machine.

## Compatibility with VolServ™

FileServ	VolServ
Version 4.3	Version 4.1 <b>NOTE:</b> The release numbering scheme has been changed on VolServ to correlate with the release numbers on FileServ.
Version 4.2	
Version 4.1	
Version 4.0	
	Version 3.0
	Version 2.3.3
Version 3.5.2	Version 2.3.3
Version 3.5.1	Version 2.3.2
Version 3.5.0	Version 2.3.1
Version 3.4.3	Version 2.3.3
	Version 2.3.2
	Version 2.3.1
Version 3.4.2	Version 2.3.2
Version 3.4.1	Version 2.3.1
Version 3.4	Version 2.3.1



# Operating System Requirements

## Patches

**NOTE:** ADIC recommends that you install all required Y2k patches for your machine.

Make sure you install all the patches that your vendor recommends for your kernel, operating system, network, hardware, media, drive type, and storage devices.

Additionally, ADIC requires the patches, filesets, or packages listed below to successfully operate FileServ. Obtain these patches from the appropriate vendor.

Platform	Patch	Description
IRIX 6.5.8f	SG0004026	Fixes lost read events. Even though the feature release is not officially supported, if you choose this release you must have this patch.
Solaris 7	Update 2107022-04	Maintenance update.
	107587-01	System accounting, (Usr).
	Recommended Patch Cluster 09/02/1999	Includes nine patches.

## YEAR 2000 COMPLIANT (CR #237)

When FileServ is running on Year 2000-compliant operating systems, including systems with Y2K-compliant patches, FileServ is Year 2000 Option 1-compliant. Basically, this means that a year is designated as a four-digit number, for example, 2000. (FileServ has been Year 2000-compliant since Version 3.5.)

## Operating Issues

### fileserv -t -y LEAVES UNWANTED PROCESSES RUNNING (CR #921)

- Running `fileserv -t -y` unconditionally exits after the number of seconds specified in the `sysparm` value configured in the `$FS_TERMTIMEOUT_VALUE` parameter. After FileServ terminates, there may be unwanted processes still running. To check for these processes, type the following:

```
# ps -elf | grep fs_  
# ps -elf | grep fsadm
```

Look for processes that should not be running, and determine which ones need to be terminated.

### fsloglevel COMMAND (CR #829)

- The `fsloglevel` command does not affect all log messages. A more reliable method for changing the logging level is to modify the `FS_LOG_LEVEL` variable in the `$FS_HOME/sysparm/fs_sysparm` file.

## **fspolicy COMMAND**

- Running the `fspolicy -w` command on a large (greater than 500,000 entries) file system can take several hours to complete. If the `fspolicy` command is unable to store or truncate files, or if the `fspolicy` command is killed or terminates abnormally, run `fspolicy -w` to rebuild the candidate files.

## **GUI PERFORMANCE (CR #296)**

- Before running another command in the GUI, select the <Dismiss> button and then remove the Status Window. Performance problems may occur if this is not done.

# Installation and Upgrade Issues

If you are installing FileServ or upgrading an existing FileServ installation, review the following topics to make sure FileServ is correctly installed. For complete and detailed installation instructions, refer to the *Installing FileServ* book.

Topic	Page
<a href="#">Turn off mediad on SGI Platforms</a>	11
<a href="#">Upgrading from FileServ Version 3.4.2 and Later</a>	12
<a href="#">Upgrading from FileServ Earlier than Version 3.4.2</a>	12
<a href="#">Installing FileServ and AMASS on the Same Platform</a>	15

## Turn off mediad on SGI Platforms

If you install FileServ on an SGI platforms running IRIX 6.5.x, turn off the `mediad` for FileServ-managed storage devices by following the steps below:

**Step 1.** Log in as `root`.

```
# su root
```

**Step 2.** Edit the `mediad.config` file.

```
# vi /etc/config/mediad.config
```

**Step 3.** Add the following statement for each FileServ-managed storage device:

```
ignore device device_name  
...  
ignore device device_name
```

where:

Option	Description
<i>device_name</i>	Path to the storage device. For example, <code>/dev/rmt/tps0d6nr.v</code> .

**Step 4.** Save the changes and quit the edit session.

**Step 5.** Stop the `mediad` process.

```
# mediad -k
```

**Step 6.** Re-start the `mediad` process.

```
# mediad
```

## Upgrading from FileServ Version 3.4.2 and Later

The Vista Database locking type was modified to use the IP locking mechanism. Therefore, to reinitialize the transaction activity file, follow the steps below:

- Step 1.** Stop FileServ.
- Step 2.** Run `checkpoint`.
- Step 3.** Install the latest versions of FileServ.
- Step 4.** Run `$FS_HOME/util/buildtaf -i`.
- Step 5.** Execute “D” option.
- Step 6.** Quit the program.
- Step 7.** Restart FileServ.

## Upgrading from FileServ Earlier than Version 3.4.2

Changing to the new Vista Database caused some changes to the database definition (`dbd`) files in existing FileServ sites. Therefore, to synchronize the database, follow the steps below:

- Step 1.** Stop FileServ.
- Step 2.** Run `checkDBA11` to make sure no errors exist in FileServ database.
- Step 3.** Run `checkpoint`.
- Step 4.** Install the latest version of FileServ.
- Step 5.** Change directory to `$FS_HOME/internal/fsdb` and move each file with a `.dbd` extension to the *same name* `.dbd.old`. There should be one `fs1_#.dbd` and `fs5_#.dbd` file for each file system managed by FileServ.

```
cd $FS_HOME/internal/fsdb
mv fileserv2.dbd fileserv2.dbd.old
mv fileserv3.dbd fileserv3.dbd.old
mv fileserv4.dbd fileserv4.dbd.old
mv fs1_4.dbd fs1_4.dbd.old
mv fs5_4.dbd fs5_4.dbd.old
...
```

- Step 6.** Change directory to `DDL` and modify the `fs3.ddl` file by changing the 4 “long” references in `mediadir_rec` to “`a_u32_t`”.
- Step 7.** If a `fs2.ddl.sgi` file exists, do the following:

```
mv fs2.ddl fs2.ddl.old
mv fs2.ddl.sgi fs2.ddl
```

**Step 8.** Run the following commands shown below:

```
ddlP fs2.ddl
ddlP fs3.ddl
ddlP fs4.ddl
```

**Step 9.** Remove fileserv\*.h; move fileserv\*.dbd, and change directory:

```
rm fileserv*.h
mv fileserv*.dbd ..
cd ..
```

**Step 10.** Modify the "fs1.ddl" file as follows:

- a) Find the "record fileattr\_rec {" line
- b) Modify the following line from:

```
char fadmhdl[64]; /* DMIG handle binary data */
```

to:

```
char fadmhdl[64][1]; /* DMIG handle binary data */
```

- c) Find the "record dirdb\_rec {" line

- d) Modify the following line from:

```
char drdmhdl[64]; /* DMIG handle binary data */
```

to:

```
char drdmhdl[64][1]; /* DMIG handle binary data */
```

**Step 11.** Get the numbers for both the fileserv5 and fileserv1 databases to be regenerated by using `ls fs1_*.dbd.old`. For example, if `fs1_4.dbd.old` and `fs5_4.dbd.old` are returned the number is 4. There should be one pair of these files for each file system associated with FileServ. If the `fs5_#.dbd.old` file does not exist, make a note and do NOT run the `ddlP` for the `fs5.ddl` in Step 11 for this number (the `fs1_4.dbd` should still be run).

**Step 12.** For each of the numbers obtained above, modify the `fs1.ddl` and `fs5.ddl` files by changing the number to the current new number. For example, the `fs1.ddl` file will have a line similar to what is shown below:

```
database fs1_5 {
```

It should be changed to:

```
database fs1_4 {
```

Continue modifying all `_5` names to `_4` (there should be 17 of them for `fs1.ddl` file and 14 in the `fs5.ddl` file).

- Step 13.** Run both `ddlp fs1.ddl` and `ddlp fs5.ddl` commands to generate `fs1_#.dbd` and `fs5_#.dbd` files. Be sure to skip the `fs5_#.dbd` files if the corresponding `fs5_#.dbd.old` file did not exist in Step 9.
- Step 14.** Repeat [Step 12.](#) and [Step 13.](#) for all the numbers obtained in [Step 11.](#)
- Step 15.** Run `$FS_HOME/util/buildtaf -i`. At the prompt, type `D` to do it.
- Step 16.** Start `lockmgr: lm_start`.
- Step 17.** Run `checkDBA11` and validate that no errors exist.

## Installing FileServ and AMASS on the Same Platform

- Step 1.** If you have FileServ and AMASS on the same platform, start the FileServ processes before the AMASS processes (CR #1780).
- Step 2.** If the `autostart` scripts are enabled for both FileServ and AMASS, run the FileServ `autostart` script before the AMASS `autostart` script. To accomplish this, assign a name to the FileServ `autostart` script so it will start before the AMASS `autostart` script. An example of the FileServ and AMASS `autostart` script names in the `/etc/rc2.d` directory is shown below. In the example, the `S95fileserv` script will execute before the `S99amass` script.

```
lrwxrwxr-x 1 root sys 25 Jan 16 08:58 S95fileserv -> /etc/init.d/auto_fileserv
lrwxrwxr-x 1 root sys 25 Jan 16 08:58 S99amass -> /etc/init.d/amass
```

# Contents of Version 4.2

## OPERATING SYSTEMS

- IRIX<sup>®</sup> 6.2, 6.5.4M, 6.5.5M, and 6.5.6M SPARC<sup>™</sup> Solaris<sup>™</sup> 2.6 and 7

## NEW DRIVE SUPPORT

- Additional drives supported by this release of FileServ include the following:
  - Storage Technology 9840.
  - Sony GY-10.
  - Sony GY-2120.
  - Sony GY-8240

## FIXED PROBLEMS

The following table lists fixed problems:

Operating System	Problem Number	Description of Problems Fixed in Version 4.2
All	427	If a file is stored, overwritten, renamed, and restored, the name is never updated in the Database. <i>This has been fixed.</i>
All	428	To alleviate timeout issues, the VSAPI timeout has been changed from 45 minutes to 5 minutes.
All	430	If a database record exists for a file but the file has not been stored, if the file is renamed and stored, the name is not updated. <i>This has been fixed.</i>
All	433	When FileServ processes terminated abnormally, they did not create core files. <i>This has been fixed.</i>
All	438	IPC communication failures occurred when pids were equal to or greater than 10,000,000. <i>This has been fixed.</i>
All	441	The dirdb was changed so it can handle 64-bit ino/gen combinations and mapping problems.
All	448	To make sure that all files were available to do a restore, the dump files and the checkpoint were bundled together.
All	460	The <code>fsversion</code> command was not working. <i>This has been fixed.</i>
All	466	Undeleting files would result in a copy mismatch. <i>This has been fixed.</i>



Operating System	Problem Number	Description of Problems Fixed in Version 4.2
Solaris	467	The <code>fsaddrelation</code> command was not making the associations on Solaris. <i>This has been fixed.</i>
All	468	The <code>fscclean -c -t endtime</code> command removed information from the trashcan at the wrong time. <i>This has been fixed.</i>

# Contents of Version 4.1

## OPERATING SYSTEMS

- Initial release of FileServ on IRIX 6.5.6.
- Support for Solaris 2.6 has been put back in FileServ.

## NEW DRIVE SUPPORT

- Additional drives supported by this release of FileServ include the following:
  - Fujitsu M8100. Configure this drive as an IBM 3590B1A.
  - Quantum DLT 8000. Configure this drive as a Quantum DLT 4000.

## AUTOMATIC DRIVE CLEANING (#218)

- Automatic drive cleaning has been added for the following drives:
  - Sony AIT-1 SDX-300 and AIT-2 SDX-500.
  - Quantum DLT 4000, DLT 7000, and DLT 8000.
  - IBM 3590B1A and 3590E1A.

After upgrading, you must import media into the *FX\_mediatype\_clean* class, where *FX* is the fileserv id and *mediatype* is specific media, such as 8590.

## REMOVE DATABASE INFORMATION (#397)

- A new *-c classname* option has been added to the *fsclean* command. The clean operation will be performed on media that belongs to the DataClass specified by *classname*. The *fsclean* command removes information from the trashcan (database) for deleted files.

## CLEANUP BY DATACLASS (#391)

- A new *-c class* option for cleanup (truncate) policies has been added to the *fspolicy -t* command. The *-c class* option allows you to specify a DataClass to be invoked with the cleanup policy.

## IMPROVE PERFORMANCE (#382)

- All commands that map a file system or database have been modified to reduce memory requirements and hence improve performance. These commands include *fspolicy* (#398), *fsaudit*, *fsdump*, and *fsaddrelation*. A new set of directories will be created under *\$FS\_HOME/internal/mapping\_dir/dev\_key.#*, where *#* is an internal number assigned by FileServ. The space required for the mapping files on disk is about 100 bytes per file and about 120 bytes per directory for all files managed by FileServ. For example, a file system with 100,000 files and 5,000 directories, requires about 10.6Mb of space for the mapping files.

## FIXED PROBLEMS

The following table lists fixed problems:

Operating System	Problem Number	Description of Problems Fixed in Version 4.1
All	173	Added logic to randomly retry database locks.
All	177	Updated <code>fspolicy</code> man pages to describe the <code>-v drivepool</code> option.
All	338	Made changes to install script to change <code>emassadm</code> to <code>adicadm</code> .
All	342 352	Introduced device SCSI code into <code>scm</code> and fixed several problems with MO drives.
All	348	Fixed <code>fsmedin</code> man page and reference to MO5.25 for magneto optical drives.
All	354	Updated <code>fsclean</code> usage statement to include the <code>-c</code> option.
All	356 378	Fixed problems with the <code>fsrmcopy</code> command.
All	380	Fixed <code>fileattr</code> database utility so it handles long file names.
All	381	Modified <code>fsmedinfo -l</code> command so disk side is displayed on listing.
All	383	Modified <code>fspolicy</code> so when files are moved before they are stored the parent information is updated.
All	384	Fixed problems with spanning D2 media.
All	385	Updated CD distribution files to include the <code>fs_create_links</code> script.
All	386	Fixed <code>fsaudit</code> to correct problems with renamed files and bad parent information.
All	387	Fixed problems with <code>rm -rf</code> and creates before <code>rm</code> completes.
All	388	Fixed <code>dirdb</code> and <code>fileattr</code> database utilities to handle long long inodes.
All	390	Fixed <code>filecomp</code> database query problem when queried by <code>mediandx</code> .
All	392	Modified log message to print filekey if the <code>fhpath</code> fails.
All	396	Fixed multi-year bug in <code>fsmederr</code> reports.
All	399	Updated all man pages to replace "emass" with "adic."
All	400	Fixed problem reading media directories with <code>fsmeddir -r</code> command.
All	404	Fixed problem logging D2 statistics after a read error.
All	405	Fixed problem with <code>fsaudit</code> command and REMOVEABLE flag for files with discrepancies in copy exist flag.
All	406	Fixed <code>dm_session</code> utility core.
All	407	Fixed problem with <code>fsdrvclean</code> command reporting a drive offline.
All	408	Fixed problem with <code>fs_dmapi</code> and Netscape BMAP reads overloading the system.
All	Docs	There is no longer a <code>rdbutil</code> directory as described in the <i>Installing FileServ</i> book on page 1-8 and 1-10.

# Contents of Version 4.0

## OPERATING SYSTEMS

- Initial release of FileServ on the following operating systems:
  - Solaris Version 7.0.
    - > Supports Veritas Vxfs Version 3.3.2 (CR #334).
  - IRIX Version 6.5.4 and 6.5.5.
- FileServ no longer supports the following operating systems:
  - Solaris Version 2.6.
  - IRIX Versions 6.5, 6.5.2, and 6.5.3.

## DRIVE SUPPORT

- Initial support of the drives below. To update the system parameters to reflect the proper capacity, see [“Update sysparm File with Media Capacity” on page 7](#) of these "Release Notes." and [“Modify IRIX Kernel for SONY DTF-2 Drive” on page 7](#) of these "Release Notes." of these “Release Notes.”
  - Sony Advanced Intelligent Tape-2 (AIT-2) Series: Model SDX-500 (CR #358).
  - IBM 3590E1A (CR #374).

## DRIVE RETRY LOGIC (CR #370)

- Added drive retries because of media read errors.

## WEB INTERFACE (CR #336)

- Support for a new HTML web interface for FileServ functionality. The web server provided with this interface is Apache. For instructions on accessing this interface, see the `/fs/www/web.config.README` file installed during the installation process.
  - Security issues are summarized below:
    - > The following factors determine what FileServ functionality is available to users of the HTML interface: (1) what user and group the httpd daemons are running as, (2) permissions on the HTML executables, and (3) whether or not the HTML directories are password-protected.
    - > By adjusting the above factors, the system administrator has a lot of flexibility over how much of the FileServ functionality can be made available with the HTML interface.
    - > By default, the HTML interface is not valid for commands that require `root` permission.
    - > All traffic sent via Apache, including passwords, are sent as plain text using SSL (Secure Socket Layer), the industry standard encryption for web transmission. To provide security via SSL for Apache, search the web for “SSL” or “Apache” information.

## FIXED PROBLEMS

The following table lists fixed problems:

Operating System	Problem Number	Description of Problems Fixed in Version 4.0
All	176	Fixed install problems if root shell is ksh.
All	200	Updated install script so <code>fs_install_db_TODO</code> is created.
All	210	Fixed install so FileServ ID is not always F0 on install.
IRIX	212	ENOSPC returned on inode attribute update when file system is full.
All	257	Copy policy store/truncate files on upgrade.
All	261	Copy <code>fs_devdb.lf</code> on upgrade.
IRIX	288	Changed <code>malloc</code> to <code>memalign</code> for n32 compile.
All	295	ARCH variable not defined in <code>fs_profile</code> .
All	311	Modified <code>fs_cshrc</code> to set ctrl-C.
All	327	Added <code>fsstats</code> scripts.
All	335	Clean up environment.
All	337	Fixed file permission problems on import.
All	340	Fixed checkpoint <code>cron</code> .
All	341	Fixed <code>cluster.config</code> error message.
All	344	Fixed <code>fs_cshrc</code> to get hostname.
All	345	Fixed <code>auto_fileserv</code> so correct status is returned.
All	347	Added entry for MO525 to <code>filesize.config</code> file.
All	350	Fixed problem with the <code>fsqueue -f</code> command.
All	357	Fixed directory creation problem with <code>fsmedin</code> and import of D2 media.
All	359	Fixed problems encountered during conversion from Convex to Solaris.
All	361	Added message for <code>fsaudit</code> when <code>dmapi</code> handle changes.
All	366	Changed <code>fsaudit</code> to wait until it finishes to notify <code>fs_resource</code> of changes.
All	367	Fixed error string problem which caused <code>fs_drv</code> to core.
IRIX	368	Fixed <code>fsaudit</code> problem introduced by n32 compile option.
All	372	Fixed status response retry logic when storing clustered files.
All	373	Fixed imports failure to report a failure when <code>mediadir</code> was not updated.
All	375	Added a password check for the html interface.

## Previous FileServ Releases

For information about previous features and fixes to the base software code, refer to prior “Release Notes.” These Notes:

- Can be found on the secured site. See “[Related Publications](#)” on page 5 of these “Release Notes.”
- Or, contact your FileServ sales representative.

## Scheduled for Retirement

For a detailed list of operating systems and drives scheduled to be removed from future releases, refer to the list of “Discontinued Devices” available from your FileServ sales representative. Customers should plan to accommodate changes by the stated discontinued date.