NAME
   tarfs - tarball filesystem

SYNOPSIS
   To compile this driver into the kernel, place the following line in your kernel configuration file:

   options TARFS

   Alternatively, to load the driver as a module at boot time, place the following line in loader.conf(5):

   tarfs_load="YES"

DESCRIPTION
   The **tarfs** driver implements a read-only filesystem backed by a tar(5) file. Currently, only POSIX archives, optionally compressed with zstd(1), are supported.

   The preferred I/O size for **tarfs** filesystems can be adjusted using the *vfs.tarfs.ioshift* sysctl setting and tunable. Setting it to 0 will reset it to its default value. Note that changes to this setting only apply to filesystems mounted after the change.

   When the backing tar file is compressed with zstd(1), I/O performance can be improved by ensuring that compressed data is broken up into multiple frames. This helps minimize unnecessary decompression work. When using bsdtar(1) to create the tar file, this can be achieved using the **zstd:max-frame-size** and **zstd:frame-per-file** options. Sensible frame sizes are powers of 2 between the system's base page size (see arch(7)) and the value of the **kern.maxphys** sysctl. Smaller frames will generally yield a worse compression ratio and require extra kernel memory to maintain an index, and larger frames will on average require more CPU time to access data when performing random I/O.

DIAGNOSTICS
   If enabled by the TARFS_DEBUG kernel option, the *vfs.tarfs.debug* sysctl setting can be used to control debugging output from the **tarfs** driver. Debugging output for individual sections of the driver can be enabled by adding together the relevant values from the table below.

0x01	Memory allocations
0x02	Checksum calculations
0x04	Filesystem operations (vfsops)
0x08	Path lookups
0x10	File operations (vnops)
0x20	General I/O
0x40	Decompression

0x80   Decompression index

0x100   Sparse file mapping

0x200   Bounce buffer usage

SEE ALSO

tar(1), zstd(1), fstab(5), tar(5), mount(8), sysctl(8)

HISTORY

The **tarfs** driver was developed by Stephen J. Kiernan *<stevek@FreeBSD.org>* and Dag-Erling Smórgrav *<des@FreeBSD.org>* for Juniper Networks and Klara Systems. This manual page was written by Dag-Erling Smórgrav *<des@FreeBSD.org>* for Juniper Networks and Klara Systems.