

**NAME**

vm86old, vm86 – enter virtual 8086 mode

**SYNOPSIS**

```
#include <sys/vm86.h>
```

```
int vm86old(struct vm86_struct *info);
```

```
int vm86(unsigned long fn, struct vm86plus_struct *v86);
```

**DESCRIPTION**

The system call **vm86()** was introduced in Linux 0.97p2. In Linux 2.1.15 and 2.0.28, it was renamed to **vm86old()**, and a new **vm86()** was introduced. The definition of *struct vm86\_struct* was changed in 1.1.8 and 1.1.9.

These calls cause the process to enter VM86 mode (virtual-8086 in Intel literature), and are used by **dosemu**.

VM86 mode is an emulation of real mode within a protected mode task.

**RETURN VALUE**

On success, zero is returned. On error, `-1` is returned, and *errno* is set appropriately.

**ERRORS****EFAULT**

This return value is specific to i386 and indicates a problem with getting user-space data.

**ENOSYS**

This return value indicates the call is not implemented on the present architecture.

**EPERM**

Saved kernel stack exists. (This is a kernel sanity check; the saved stack should exist only within vm86 mode itself.)

**CONFORMING TO**

This call is specific to Linux on 32-bit Intel processors, and should not be used in programs intended to be portable.

**COLOPHON**

This page is part of release 5.02 of the Linux *man-pages* project. A description of the project, information about reporting bugs, and the latest version of this page, can be found at <https://www.kernel.org/doc/man-pages/>.