

**NAME**

**zero\_region** - Read-only region prefilled with zeroes

**SYNOPSIS**

```
#include <sys/param.h>
#include <sys/system.h>
#include <vm/vm_param.h>
```

```
extern const void *zero_region;
```

**DESCRIPTION**

The global variable *zero\_region* points to a read-only region prefilled with zeroes. The size of the region is specified by the `ZERO_REGION_SIZE` macro.

**IMPLEMENTATION NOTES**

The region *zero\_region* points to is mapped to the same page multiple times.

**EXAMPLES**

```
/*
 * This function writes zeroes to the vnode at offset 0
 * with ZERO_REGION_SIZE length.
 */
static int
write_example(struct vnode *vp)
{
    struct thread *td;
    struct iovec aiov;
    struct uio auio;
    int error;

    td = curthread;

    aiov.iov_base = __DECONST(void *, zero_region);
    aiov.iov_len = ZERO_REGION_SIZE;
    auio.uio_iov = &aiov;
    auio.uio_iovcnt = 1;
    auio.uio_offset = 0;
    auio.uio_resid = ZERO_REGION_SIZE;
    auio.uio_segflg = UIO_SYSSPACE;
    auio.uio_rw = UIO_WRITE;
```

```
    auio.uio_td = td;

    error = VOP_WRITE(vp, &auio, 0, td->td_ucred);
    return (error);
}
```

**SEE ALSO**

pmap(9), vm\_map(9)

**AUTHORS**

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