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#define ETH_CTRL_GET_MAC      1      /* Get the MAC for this device */
#define ETH_CTRL_ADD_MCAST    2      /* Add a multicast address */
#define ETH_CTRL_REMOVE_MCAST 3      /* Remove a multicast address */

/* Ethernet multicast */

#define ETH_NUM_MCAST         32      /* Max multicast addresses */

/* Ethernet NIC type */

#define ETH_TYPE_3C905C       1      /* 3COM 905C */
#define ETH_TYPE_E1000E       2      /* Intel E1000E */
#define ETH_TYPE_QUARK_ETH    3      /* Ethernet on Quark board */

/* Control block for Ethernet device */

struct ethcblk {
    byte    state;              /* ETH_STATE... as defined above */
    struct  dentry *phy;        /* physical eth device for Tx DMA */
    byte    type;              /* NIC_TYPE... as defined above */

    /* Pointers to associated structures */

    struct  dentry *dev;        /* Address in device switch table */
    void    *csr;              /* Control and status register address */
    uint32  pcidev;            /* PCI device number */
    uint32  iobase;            /* I/O base from config */
    uint32  flashbase;         /* Flash base from config */
    uint32  membase;           /* Memory base for device from config */

    void    *rxRing;           /* Ptr to array of recv ring descriptors */
    void    *rxBufs;           /* Ptr to Rx packet buffers in memory */
    uint32  rxHead;            /* Index of current head of Rx ring */
    uint32  rxTail;            /* Index of current tail of Rx ring */
    uint32  rxRingSize;        /* Size of Rx ring descriptor array */
    uint32  rxIrq;             /* Count of Rx interrupt requests */

    void    *txRing;           /* Ptr to array of xmit ring descriptors */
    void    *txBufs;           /* Ptr to Tx packet buffers in memory */
    uint32  txHead;            /* Index of current head of Tx ring */
    uint32  txTail;            /* Index of current tail of Tx ring */
    uint32  txRingSize;        /* Size of Tx ring descriptor array */
    uint32  txIrq;             /* Count of Tx interrupt requests */

    uint8   devAddress[ETH_ADDR_LEN]; /* MAC address */

```