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/* Pooltime.c
lc -bl -cfist -v -y -j73 pooltime
blink FROM LIB:c.o pooltime.o TO pooltime LIB LIB:lc.lib LIB:amiga.lib
quit

This program demonstrates the use of a memory pool to allocate memory
for two timerequest structures. Before pools, the memory required for
the timerequests was allocated using AllocMem().
*/

#include <exec/types.h>
#include <exec/memory.h>
#include <devices/timer.h>

#include <clib/exec_protos.h>
#include <clib/alib_protos.h>

#include <stdio.h>

#ifdef LATTICE
int CXBRK(void) { return(0); } /* Disable Lattice CTRL/C handling */
int chkabort(void) { return(0); } /* really */
#endif

VOID main(VOID);

void main()
{
    struct timerequest *TimerIO[3];
    struct MsgPort *TimerMP;
    struct Message *TimerMSG;
    APTR *TimerPool; /* pointer to memory pool */
    ULONG x,seconds[3]={4,1,2}, microseconds[3]={0,0,0};
    int allin = 3;
    char *position[]={"last","second","first"};

    if (TimerMP = CreateMsgPort())
    {
        if (TimerIO[0] = CreateIORequest(TimerMP,sizeof(struct timerequest)) )
        {
            if (!OpenDevice(TIMERNAME, UNIT_VBLANK,(struct IORequest *) TimerIO[0], 0L))
            {
                /* Set command to TR_ADDREQUEST */
                TimerIO[0]->tr_node.io_Command = TR_ADDREQUEST;

                /* Create the memory pool */
                if (TimerPool = CreatePool(MEMF_FAST,400,200))
                {
                    /* Allocate pooled memory from TimerPool */
                    if (TimerIO[1]=(struct timerequest *)
                        AllocPooled(TimerPool,sizeof(struct timerequest)))
                    {
                        /* Allocate pooled memory from TimerPool */
                        if (TimerIO[2]=(struct timerequest *)
                            AllocPooled(TimerPool,sizeof(struct timerequest)))
                        {
                            /* Copy fields from request used to open the timer device */
                            *TimerIO[1] = *TimerIO[0];
                            *TimerIO[2] = *TimerIO[0];

                            /* Initialize other fields */
                            for (x=0;x<3;x++)
                            {
                                TimerIO[x]->tr_time.tv_secs = seconds[x];
                                TimerIO[x]->tr_time.tv_micro = microseconds[x];
                            }

                            printf("\n\nSending multiple requests\n\n");

                            /* Send multiple requests asynchronously */
                            SendIO(TimerIO[0]);
                            SendIO(TimerIO[1]);
                            SendIO(TimerIO[2]);

                            /* Now go to sleep with WaitPort() waiting for the requests */
                            while (allin)
                                {

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                                WaitPort(TimerMP);
                                TimerMSG=GetMsg(TimerMP); /* Get the reply message */
                                for (x=0;x<3;x++)
                                    if (TimerMSG==(struct Message *)TimerIO[x])
                                        printf("Request %ld finished %s\n",
                                            x,position[--allin]);
                                }
                            }
                        }
                    }
                }
                printf("Error: Could not allocate memory for TimerIO[2]\n");
            }
        }
        printf("Error: Could not allocate memory for TimerIO[1]\n");
    }

    /* Delete the entire pool. You could also free each individual
    * allocation using FreePooled(), but this is quicker because a pool's
    * puddles are automatically drained when you delete the pool.
    */
    DeletePool(TimerPool);
}
else
    printf("Error: Could not allocate memory pool\n");

    CloseDevice(TimerIO[0]);
}
else
    printf("Error: Could not open %s\n", TIMERNAME);

    DeleteIORequest(TimerIO[0]);
}
else
    printf("Error: could not create IORequest\n");

    DeleteMsgPort(TimerMP);
}
else
    printf("Error: Could not create message port\n");
}

```

