

E_Modules

COLLABORATORS

	<i>TITLE :</i> E_Modules		
<i>ACTION</i>	<i>NAME</i>	<i>DATE</i>	<i>SIGNATURE</i>
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REVISION HISTORY

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Chapter 1

E_Modules

1.1 AmigaE Modules

Mods2Guide V2.1 - Robert Bromley - August 13, 1995

Directories

amigalib	class	datatypes	devices
diskfont	dos	exec	gadgets
gadtoolsbox	graphics	hardware	intuition
libraries	other	prefs	resources
rexx	support	tools	utility
workbench			

Files

Modules in the Root Directory

1.2 amigalib

argarray.m	boopsi.m
cx.m	interrupts.m
io.m	lists.m
ports.m	random.m
tasks.m	time.m

1.3 argarray.m

```
/* this module contains 456 bytes of code! */
```

```
/* ... and 1 reloc entries */
```

```
PROC argArrayInit(str=0)
PROC argInt(tt,entry,defaultval)
PROC argArrayDone()
PROC argString(tt,entry,defaultstring)
```

```
DEF iconbase
/* 2 private global variable(s) in this module */

/*
  code from module "emodules:other/split.m" used:
    argSplit()/1 (1x)
*/
```

1.4 boopsi.m

```
/* this module contains 332 bytes of code! */

PROC callHookA(h,obj,msg)
PROC doMethodA(obj,msg)
PROC coerceMethodA(cl,obj,msg)
PROC doSuperMethodA(cl,obj,msg)
PROC setSuperAttrsA(cl,obj,msg)
```

1.5 cx.m

```
/* this module contains 1576 bytes of code! */

/* ... and 6 reloc entries */

PROC userFilter(tt,action_name,default_descr)
PROC freeIEvents(events)
PROC hotKey(description,port,id)
PROC invertStringRev(str,km)
PROC invertString(str,km)

DEF iconbase,cxbase
```

1.6 interrupts.m

```
/* this module contains 156 bytes of code! */

PROC waitbeam(pos)
PROC addTOF(i,p,a)
PROC remTOF(i)
```

1.7 io.m

```
/* this module contains 296 bytes of code! */

/* ... and 2 reloc entries */
```

```
PROC beginIO(ioReq)
PROC deleteStdIO(ioReq)
PROC createStdIO(port)
PROC deleteExtIO(ioReq)
PROC createExtIO(port,ioSize)
```

1.8 lists.m

```
/* this module contains 44 bytes of code! */

PROC newList(mlh)
```

1.9 ports.m

```
/* this module contains 420 bytes of code! */

/* ... and 3 reloc entries */

PROC deletePort(port)
PROC createPort(name,pri)

/*
  code from module "emodules:amigalib/lists.m" used:
    newList()/1 (1x)
*/
```

1.10 random.m

```
/* this module contains 212 bytes of code! */

/* ... and 4 reloc entries */

PROC rangeRand(num)
PROC fastRand(num)

/* 1 private global variable(s) in this module */
```

1.11 tasks.m

```
/* this module contains 420 bytes of code! */

/* ... and 1 reloc entries */

PROC deleteTask(tc)
PROC createTask(name,pri,initPC,stackSize)

/*
```

```

code from module "emodules:amigalib/lists.m" used:
    newList()/1 (1x)
*/

```

1.12 time.m

```

/* this module contains 196 bytes of code! */

PROC timeDelay(unit,seconds,micros)

/*
code from module "emodules:amigalib/ports.m" used:
    createPort()/2 (1x)
    deletePort()/1 (1x)
code from module "emodules:amigalib/io.m" used:
    createExtIO()/2 (1x)
    deleteExtIO()/1 (1x)
*/

```

1.13 class

```

hash.m          sc.m
sctext.m        stack.m

```

1.14 hash.m

```

/* this module contains 760 bytes of code! */

/* ... and 3 reloc entries */

(----) OBJECT hashlink
(  4)  data:LONG
(  8)  len:LONG
(----) ENDOBJECT      /* SIZEOF=12 */

(----) OBJECT hashtable
    hashtable(a)
    end()
    end_links(a)
    find(a,b)
    add(a,b,c,d)
    iterate(a)
    calc_hash_spread()
(----) ENDOBJECT      /* SIZEOF=12 */

CONST HASH_MEDIUM=$3AD,
       HASH_NORMAL=$D3,
       HASH_HEAVIER=$3F8B,
       HASH_HEAVY=$F47

```

1.15 sc.m

```
/* this module contains 5988 bytes of code! */

/* ... and 5 reloc entries */

/* 1 private global variable(s) in this module */

(----) OBJECT scrollwin
( 104)   window:PTR TO window
        where(a,b)
        refreshwindow()
        settop(a,b)
        handle()
        open(a,b,c,d,e,f,g,h)
        end()
        extra_refresh(a,b,c,d,e,f,g)
        extra_init(a)
        extra_exit()
        extra_unit()
        extra_max()
(----) ENDOBJECT      /* SIZEOF=108 */
```

1.16 sctext.m

```
/* this module contains 1988 bytes of code! */

/* ... and 8 reloc entries */

(----) OBJECT scrolltext
( 104)   window:PTR TO window
        settext(a,b)
        getactive()
        active(a,b)
        where(a,b)
        refreshwindow()
        settop(a,b)
        handle()
        open(a,b,c,d,e,f,g,h)
        end()
        extra_refresh(a,b,c,d,e,f,g)
        extra_init(a)
        extra_exit()
        extra_unit()
        extra_max()
(----) ENDOBJECT      /* SIZEOF=152 */

/*
   code from module "emodules:class/sc.m" used:
   OBJECT scrollwin [3 acc]
*/
```

1.17 stack.m

```

/* this module contains 352 bytes of code! */

/* ... and 4 reloc entries */

(----) OBJECT stack
        stack()
        is_empty()
        push(a)
        pop()
        end()
(----) ENDOBJECT      /* SIZEOF=8 */

```

1.18 datatypes

animationclass.m	datatypes.m
datatypesclass.m	pictureclass.m
soundclass.m	textclass.m

1.19 animationclass.m

```

(----) OBJECT adtstart
(  0)  methodid:LONG
(  4)  frame:LONG
(----) ENDOBJECT      /* SIZEOF=8 */

(----) OBJECT adtframe
(  0)  methodid:LONG
(  4)  timestamp:LONG
(  8)  frame:LONG
( 12)  duration:LONG
( 16)  bitmap:PTR TO bitmap
( 20)  cmap:PTR TO colormap
( 24)  sample:PTR TO CHAR
( 28)  samplelength:LONG
( 32)  period:LONG
( 36)  userdata:LONG
(----) ENDOBJECT      /* SIZEOF=40 */

(----) OBJECT animheader
(  0)  operation:CHAR
(  1)  mask:CHAR
(  2)  width:INT
(  4)  height:INT
(  6)  left:INT
(  8)  top:INT
( 10)  abstime:LONG
( 14)  reltime:LONG
( 18)  interleave:CHAR
( 19)  pad0:CHAR
( 20)  flags:LONG

```

```
( 24)   pad[16]:ARRAY OF CHAR
(----) ENDOBJECT      /* SIZEOF=40 */

CONST ADTA_SAMPLELENGTH=$800011F7,
      ADTA_FRAMES=$8000125C,
      ADTA_COLORTABLE2=$800010CF,
      ADTM_DUMMY=$700,
      ADTA_DUMMY=$80001258,
      ID_DLT=$444C5441,
      ADTM_START=$703,
      ADTA_SCREEN=$800010D4,
      ADTM_PAUSE=$704,
      ADTA_MODEID=$800010C8,
      ADTA_NUMALLOC=$800010D2,
      ADTM_STOP=$705,
      ADTA_GREGS=$800010CD,
      ADTA_CREGS=$800010CC,
      ADTA_SPARSETABLE=$800010DA,
      ADTA_COLORTABLE=$800010CE,
      ADTA_REMAP=$800010D3,
      ADTA_NUMCOLORS=$800010D1,
      ID_ANHD=$414E4844,
      ADTA_VOLUME=$800011F9,
      ADTA_PERIOD=$800011F8,
      ADTA_NUMSPARSE=$800010D9,
      ID_ANIM=$414E494D,
      ADTA_FRAMEINCREMENT=$8000125F,
      ADTM_UNLOADFRAME=$702,
      ADTM_LOADFRAME=$701,
      ADTA_FRAME=$8000125D,
      ADTA_KEYFRAME=$800010CA,
      ADTA_CYCLES=$800011FA,
      ADTA_FRAMESPERSECOND=$8000125E,
      ADTA_SAMPLE=$800011F6,
      ADTA_HEIGHT=$8000125A,
      ADTM_LOCATE=$706,
      ADTA_DEPTH=$8000125B,
      ADTA_ALLOCATED=$800010D0,
      ADTA_WIDTH=$80001259,
      ADTA_COLORREGISTERS=$800010CB

#define ANIMATIONDTCLASS/0
```

1.20 datatypes.m

```
(----) OBJECT toolnode
(  0)   node:ln (or ARRAY OF ln)
( 14)   tool:tool (or ARRAY OF tool)
( 22)   length:LONG
(----) ENDOBJECT      /* SIZEOF=26 */

(----) OBJECT datatype
(  0)   node1:ln (or ARRAY OF ln)
( 14)   node2:ln (or ARRAY OF ln)
( 28)   header:PTR TO datatypeheader
```

```

( 32)  toollist:lh (or ARRAY OF lh)
( 46)  functionname:PTR TO CHAR
( 50)  attrlist:PTR TO tagitem
( 54)  length:LONG
(----) ENDOBJECT      /* SIZEOF=58 */

(----) OBJECT tool
(  0)  which:INT
(  2)  flags:INT
(  4)  program:PTR TO CHAR
(----) ENDOBJECT      /* SIZEOF=8 */

(----) OBJECT dthookcontext
(  0)  sysbase:PTR TO lib
(  4)  dosbase:PTR TO lib
(  8)  iffparsebase:PTR TO lib
( 12)  utilitybase:PTR TO lib
( 16)  lock:LONG
( 20)  fib:PTR TO fileinfoblock
( 24)  filehandle:LONG
( 28)  iff:PTR TO iffhandle
( 32)  buffer:PTR TO CHAR
( 36)  bufferlength:LONG
(----) ENDOBJECT      /* SIZEOF=40 */

(----) OBJECT datatypeheader
(  0)  name:PTR TO CHAR
(  4)  basename:PTR TO CHAR
(  8)  pattern:PTR TO CHAR
( 12)  mask:PTR TO INT
( 16)  groupid:LONG
( 20)  id:LONG
( 24)  masklen:INT
( 26)  pad:INT
( 28)  flags:INT
( 30)  priority:INT
(----) ENDOBJECT      /* SIZEOF=32 */

CONST DTERROR_UNKNOWN_DATATYPE=$7D0,
      ID_CODE=$44544344,
      DTERROR_INVALID_DATA=$7D8,
      DTERROR_NOT_ENOUGH_DATA=$7D7,
      ID_TOOL=$4454544C,
      DTF_SYSTEM1=$1000,
      DTERROR_COULDNT_OPEN=$7D2,
      TF_LAUNCH_MASK=15,
      DTF_TYPE_MASK=15,
      ID_TAGS=$44545447,
      GID_PICTURE=$70696374,
      ID_DTHD=$44544844,
      GID_ANIMATION=$616E696D,
      DTF_ASCII=1,
      GID_TEXT=$74657874,
      TW_PRINT=4,
      TW_EDIT=3,
      TW_MAIL=5,
      GID_INSTRUMENT=$696E7374,

```

```

GID_DOCUMENT=$646F6375,
TW_INFO=1,
GID_MUSIC=$6D757369,
DTF_BINARY=0,
ID_DTYP=$44545950,
TF_WORKBENCH=2,
DTEERROR_RESERVED=$7D5,
DTF_CASE=16,
GID_SOUND=$736F756E,
GID_SYSTEM=$73797374,
TW_BROWSE=2,
GID_MOVIE=$6D6F7669,
DTF_IFF=2,
DTMSG_TYPE_OFFSET=$834,
DTEERROR_COULDNT_SEND_MESSAGE=$7D3,
TF_SHELL=1,
DTF_MISC=3,
DTEERROR_COULDNT_SAVE=$7D1,
DTEERROR_UNKNOWN_COMPRESSION=$7D6,
TNSIZE=26,
DTNSIZE=$3A,
TF_RX=3,
DTHSIZE=$20,
DTEERROR_COULDNT_OPEN_CLIPBOARD=$7D4,
ID_NAME=$4E414D45

```

1.21 datatypesclass.m

```

(----) OBJECT dtwrite
( 0) methodid:LONG
( 4) ginfo:PTR TO gadgetinfo
( 8) filehandle:LONG
(12) mode:LONG
(16) attrlist:PTR TO tagitem
(----) ENDOBJECT /* SIZEOF=20 */

(----) OBJECT dtdraw
( 0) methodid:LONG
( 4) rport:PTR TO rastport
( 8) left:LONG
(12) top:LONG
(16) width:LONG
(20) height:LONG
(24) tophoriz:LONG
(28) topvert:LONG
(32) attrlist:PTR TO tagitem
(----) ENDOBJECT /* SIZEOF=36 */

(----) OBJECT dtprint
( 0) methodid:LONG
( 4) ginfo:PTR TO gadgetinfo
( 8) iodr:PTR TO iodrpreq
( 8) iopc:PTR TO ioprctmdreq
( 8) ios:PTR TO iostd
(12) attrlist:PTR TO tagitem

```

```
(----) ENDOBJECT      /* SIZEOF=16 */

(----) OBJECT dttrigger
(  0)  methodid:LONG
(  4)  ginfo:PTR TO gadgetinfo
(  8)  function:LONG
( 12)  data:LONG
(----) ENDOBJECT      /* SIZEOF=16 */

(----) OBJECT dtgoto
(  0)  methodid:LONG
(  4)  ginfo:PTR TO gadgetinfo
(  8)  nodename:PTR TO CHAR
( 12)  attrlist:PTR TO tagitem
(----) ENDOBJECT      /* SIZEOF=16 */

(----) OBJECT dtframebox
(  0)  methodid:LONG
(  4)  ginfo:PTR TO gadgetinfo
(  8)  contentsinfo:PTR TO frameinfo
( 12)  frameinfo:PTR TO frameinfo
( 16)  sizeframeinfo:LONG
( 20)  frameflags:LONG
(----) ENDOBJECT      /* SIZEOF=24 */

(----) OBJECT dtselect
(  0)  methodid:LONG
(  4)  ginfo:PTR TO gadgetinfo
(  8)  select:rectangle (or ARRAY OF rectangle)
(----) ENDOBJECT      /* SIZEOF=16 */

(----) OBJECT dtgeneral
(  0)  methodid:LONG
(  4)  ginfo:PTR TO gadgetinfo
(----) ENDOBJECT      /* SIZEOF=8 */

(----) OBJECT frameinfo
(  0)  propertyflags:LONG
(  4)  resolution:tpoint (or ARRAY OF tpoint)
(  8)  redbits:CHAR
(  9)  greenbits:CHAR
( 10)  bluebits:CHAR
( 12)  width:LONG
( 16)  height:LONG
( 20)  depth:LONG
( 24)  screen:PTR TO screen
( 28)  colormap:PTR TO colormap
( 32)  flags:LONG
(----) ENDOBJECT      /* SIZEOF=36 */

(----) OBJECT dtmethod
(  0)  label:PTR TO CHAR
(  4)  command:PTR TO CHAR
(  8)  method:LONG
(----) ENDOBJECT      /* SIZEOF=12 */

(----) OBJECT dtspecialinfo
```

```
( 0)    lock:ss (or ARRAY OF ss)
( 46)   flags:LONG
( 50)   topvert:LONG
( 54)   visvert:LONG
( 58)   totvert:LONG
( 62)   otopvert:LONG
( 66)   vertunit:LONG
( 70)   tophoriz:LONG
( 74)   vishoriz:LONG
( 78)   tothoriz:LONG
( 82)   otophoriz:LONG
( 86)   horizunit:LONG
(----) ENDOBJECT      /* SIZEOF=90 */
```

```
CONST DTA_OBJECTID=$80001072,
      DTA_TEXTFONT=$80001017,
      DTA_DATATYPE=$80001067,
      DTA_SOURCETYPE=$80001065,
      DTA_NOMINALHORIZ=$8000107D,
      DTA_TOTALPHORIZ=$8000107B,
      DTA_TOTALHORIZ=$80001011,
      DTA_VISIBLEHORIZ=$80001010,
      DTA_TOPHORIZ=$8000100F,
      DTA_REPEAT=$80001026,
      STM_CONTENTS=3,
      DTA_RASTPORT=$80001193,
      DTM_GOTO=$630,
      DTA_TEXTATTR=$8000100A,
      DTM_WRITE=$650,
      STM_RETRACE=5,
      DTA_SPECIAL=$80001192,
      DTA_DUMMY=$80001000,
      STM_BROWSE_PREV=6,
      STM_PLAY=2,
      STM_PAUSE=1,
      DTM_COPY=$607,
      DTA_PRINTERSTATUS=$80001019,
      DTA_OBJAUTHOR=$8000106E,
      DTA_USERDATA=$80001073,
      DTA_DATA=$80001016,
      DTA_HORIZUNIT=$80001012,
      DTA_VERTUNIT=$8000100E,
      DTA_CONTROLPANEL=$80001024,
      DTA_SYNC=$8000101D,
      DTA_DESTROWS=$80001191,
      DTSIF_PRINTING=$20,
      DTA_IMMEDIATE=$80001025,
      DTA_METHODS=$80001018,
      DTA_TRIGGERMETHODS=$80001015,
      STM_FASTFORWARD=13,
      STM_ACTIVATE_FIELD=10,
      STM_PREV_FIELD=9,
      STM_NEXT_FIELD=8,
      STM_STOP=14,
      STM_RESUME=15,
      DTM_REMOVEDTOBJECT=$604,
      DTA_CONDUCTOR=$80001023,
```

```
STM_INDEX=4,
DTM_FRAMEBOX=$601,
FIF_REMAPPABLE=4,
FIF_SCROLLABLE=2,
FIF_SCALABLE=1,
DTA_OBJANNOTATION=$8000106F,
DTST_RAM=1,
DTWM_RAW=1,
DTA_ERRORSTRING=$80001022,
DTM_DISPOSEMEMBER=$611,
DTM_NEWMEMBER=$610,
DTA_ERRORNUMBER=$80001021,
STM_REWIND=12,
DTM_DRAW=$641,
DTM_ABORTPRINT=$609,
DTM_PRINT=$608,
DTSIF_DRAGGING=4,
DTA_TITLE=$80001014,
DTA_SELECTDOMAIN=$80001079,
DTA_DOMAIN=$80001068,
FRAMEF_SPECIFY=1,
DTM_SELECT=$605,
DTSIF_DRAGSELECT=8,
DTA_HANDLE=$80001066,
DTSIF_LAYOUTPROC=$40,
DTA_LAYOUTPROC=$8000101B,
DTA_PRINTERPROC=$8000101A,
DTM_RELEASEDRAWINFO=$642,
DTM_OBTAINDRAWINFO=$640,
DTA_DESTCOLS=$80001190,
DTA_FRAMEINFO=$80001074,
STM_COMMAND=11,
DTM_TRIGGER=$631,
DTA_TOP=$8000106A,
DTA_BUSY=$8000101C,
DTM_CLEARSELECTED=$606,
DTA_RELBOTTOM=$80001076,
DTSIF_HIGHLIGHT=16,
DTA_RELHEIGHT=$80001078,
DTA_RELRIGHT=$80001075,
DTA_OBJCOPYRIGHT=$80001070,
DTA_HEIGHT=$8000106C,
DTA_LEFT=$80001069,
DTWM_IFF=0,
STM_LOCATE=16,
DTA_NOMINALVERT=$8000107C,
DTA_TOTALPVERT=$8000107A,
DTA_TOTALVERT=$8000100D,
DTA_VISIBLEVERT=$8000100C,
DTA_TOPVERT=$8000100B,
DTST_FILE=2,
DTA_RELWIDTH=$80001077,
DTA_WIDTH=$8000106B,
DTA_OBJVERSION=$80001071,
DTSIF_NEWSIZE=2,
STM_BROWSE_NEXT=7,
DTST_HOTLINK=4,
```

```

DTA_GROUPID=$8000101F,
DTM_ASYNCCLAYOUT=$603,
DTM_PROCLAYOUT=$602,
DTSIF_LAYOUT=1,
DTST_CLIPBOARD=3,
DTA_AREXXPORTNAME=$80001194,
DTA_OBJNAME=$8000106D,
DTA_NAME=$80001064,
DTA_BASENAME=$8000101E,
DTA_NODENAME=$80001013,
DTA_ERRORLEVEL=$80001020

```

```
#define DATATYPESCLASS/0
```

1.22 pictureclass.m

```

(----) OBJECT colorregister
( 0)   red:CHAR
( 1)   green:CHAR
( 2)   blue:CHAR
(----) ENDOBJECT      /* SIZEOF=4 */

(----) OBJECT bitmapheader
( 0)   width:INT
( 2)   height:INT
( 4)   left:INT
( 6)   top:INT
( 8)   depth:CHAR
( 9)   masking:CHAR
(10)   compression:CHAR
(11)   pad:CHAR
(12)   transparent:INT
(14)   xaspect:CHAR
(15)   yaspect:CHAR
(16)   pagewidth:INT
(18)   pageheight:INT
(----) ENDOBJECT      /* SIZEOF=20 */

CONST ID_DEST=$44455354,
      ID_CAMG=$43414D47,
      PDTA_COLORTABLE2=$800010CF,
      PDTA_SCREEN=$800010D4,
      MSKHASALPHA=4,
      PDTA_MODEID=$800010C8,
      PDTA_NUMALLOC=$800010D2,
      MSKHASMASK=1,
      PDTA_GREGS=$800010CD,
      PDTA_CREGS=$800010CC,
      PDTA_SPARSETABLE=$800010DA,
      PDTA_COLORTABLE=$800010CE,
      PDTA_REMAP=$800010D3,
      PDTA_NUMCOLORS=$800010D1,
      PDTA_NUMSPARSE=$800010D9,
      PDTA_BITMAPHEADER=$800010C9,
      MSKHASTRANSSPARENTCOLOR=2,

```

```

ID_CMAP=$434D4150,
ID_GRAB=$47524142,
ID_BMHD=$424D4844,
PDTA_GRAB=$800010D6,
CMPNONE=0,
MSKNONE=0,
ID_CRNG=$43524E47,
MSKLASSO=3,
ID_BODY=$424F4459,
ID_ILBM=$494C424D,
PDTA_ALLOCATED=$800010D0,
CMPBYTERUN1=1,
CMPBYTERUN2=2,
ID_SPRT=$53505254,
PDTA_CLASSBITMAP=$800010D8,
PDTA_DESTBITMAP=$800010D7,
PDTA_FREESOURCEBITMAP=$800010D5,
PDTA_BITMAP=$800010CA,
PDTA_COLORREGISTERS=$800010CB

```

```
#define PICTUREDTCLASS/0
```

1.23 soundclass.m

```

(----) OBJECT voiceheader
(  0)  oneshothisamples:LONG
(  4)  repeathisamples:LONG
(  8)  samplesperhicycle:LONG
( 12)  samplespersec:INT
( 14)  octaves:CHAR
( 15)  compression:CHAR
( 16)  volume:LONG
(----) ENDOBJECT      /* SIZEOF=20 */

CONST SDTA_SAMPLELENGTH=$800011F7,
      SDTA_DUMMY=$800011F4,
      SDTA_SIGNALTASK=$800011FB,
      SDTA_CONTINUOUS=$800011FD,
      SDTA_SIGNALBIT=$800011FC,
      ID_VHDR=$56484452,
      SDTA_VOLUME=$800011F9,
      SDTA_PERIOD=$800011F8,
      CMP_FIBDELTA=1,
      SDTA_VOICEHEADER=$800011F5,
      CMP_NONE=0,
      SDTA_CYCLES=$800011FA,
      SDTA_SAMPLE=$800011F6,
      ID_BODY=$424F4459,
      ID_8SVX=$38535658

#define SOUNDDTCLASS/0

```


1.24 textclass.m

```
(----) OBJECT line
(   0)   link:mln (or ARRAY OF mln)
(   8)   text:PTR TO CHAR
(  12)   textlen:LONG
(  16)   xoffset:INT
(  18)   yoffset:INT
(  20)   width:INT
(  22)   height:INT
(  24)   flags:INT
(  26)   fgpen:CHAR
(  27)   bgpen:CHAR
(  28)   style:LONG
(  32)   data:LONG
(----) ENDOBJECT      /* SIZEOF=36 */

CONST TDTA_BUFFER=$8000112C,
      ID_CHRS=$43485253,
      LNF_LF=1,
      TDTA_BUFFERLEN=$8000112D,
      LNF_OBJECT=4,
      ID_FTXT=$46545854,
      TDTA_WORDSELECT=$8000112F,
      TDTA_LINELIST=$8000112E,
      TDTA_WORDWRAP=$80001131,
      LNF_SELECTED=8,
      TDTA_WORDDELIM=$80001130,
      LNF_LINK=2

#define TEXTDTCCLASS/0
```

1.25 devices

audio.m	bootblock.m
cd.m	clipboard.m
console.m	conunit.m
gameport.m	hardblocks.m
input.m	inputevent.m
keyboard.m	keymap.m
narrator.m	parallel.m
printer.m	prtbase.m
prtgfx.m	scsidisk.m
serial.m	timer.m
trackdisk.m	

1.26 audio.m

```
(----) OBJECT ioaudio
(   0)   io:io (or ARRAY OF io)
(  32)   allockey:INT
(  34)   data:PTR TO CHAR
```

```
( 38)    length:LONG
( 42)    period:INT
( 44)    volume:INT
( 46)    cycles:INT
( 48)    writemsg:mn (or ARRAY OF mn)
(----) ENDOBJECT      /* SIZEOF=68 */
```

```
CONST ADCMD_SETPREC=10,
      ADALLOC_MAXPREC=$7F,
      ADALLOC_MINPREC=$FFFFFF80,
      ADIOERR_ALLOCFAILED=-11,
      ADCMD_LOCK=13,
      ADIOF_PERVOL=16,
      ADIOB_PERVOL=4,
      ADCMD_PERVOL=12,
      ADIOERR_NOALLOCATION=-10,
      ADCMD_FINISH=11,
      ADCMD_FREE=9,
      ADIOF_NOWAIT=$40,
      ADIOB_NOWAIT=6,
      ADCMD_ALLOCATE=$20,
      ADIOF_WRITEMESSAGE=$80,
      ADIOB_WRITEMESSAGE=7,
      ADHARD_CHANNELS=4,
      ADIOF_SYNCCYCLE=$20,
      ADIOB_SYNCCYCLE=5,
      ADCMD_WAITCYCLE=14,
      ADIOERR_CHANNELSTOLEN=-12
```

```
#define AUDIONAME/0
```

1.27 bootblock.m

```
(----) OBJECT bb
( 0)    id[4]:ARRAY OF CHAR
( 4)    chksum:LONG
( 8)    dosblock:LONG
(----) ENDOBJECT      /* SIZEOF=12 */
```

```
CONST BOOTSECTS=2,
      BBNAME_DOS=$444F5300,
      BBNAME_KICK=$4B49434B
```

1.28 cd.m

```
(----) OBJECT qcode
( 0)    ctladr:CHAR
( 1)    track:CHAR
( 2)    index:CHAR
( 3)    zero:CHAR
( 4)    trackposition:lsnmsf (or ARRAY OF lsnmsf)
( 8)    diskposition:lsnmsf (or ARRAY OF lsnmsf)
```

```

(----) ENDOBJECT      /* SIZEOF=12 */

(----) OBJECT cdtoc
(  0)  summary:tocsummary (or ARRAY OF tocsummary)
(  0)  entry:tocentry (or ARRAY OF tocentry)
(----) ENDOBJECT      /* SIZEOF=6 */

(----) OBJECT tocentry
(  0)  ctladr:CHAR
(  1)  track:CHAR
(  2)  position:lsnmsf (or ARRAY OF lsnmsf)
(----) ENDOBJECT      /* SIZEOF=6 */

(----) OBJECT tocsummary
(  0)  firsttrack:CHAR
(  1)  lasttrack:CHAR
(  2)  leadout:lsnmsf (or ARRAY OF lsnmsf)
(----) ENDOBJECT      /* SIZEOF=6 */

(----) OBJECT cdx1
(  0)  node:mln (or ARRAY OF mln)
(  8)  buffer:PTR TO CHAR
( 12)  length:LONG
( 16)  actual:LONG
( 20)  intdata:LONG
( 24)  intcode:LONG
(----) ENDOBJECT      /* SIZEOF=28 */

(----) OBJECT lsnmsf
(  0)  lsn:LONG
(  0)  msf:rmsf (or ARRAY OF rmsf)
(----) ENDOBJECT      /* SIZEOF=4 */

(----) OBJECT rmsf
(  0)  reserved:CHAR
(  1)  minute:CHAR
(  2)  second:CHAR
(  3)  frame:CHAR
(----) ENDOBJECT      /* SIZEOF=4 */

(----) OBJECT cdinfo
(  0)  playspeed:INT
(  2)  readspeed:INT
(  4)  readxlspeed:INT
(  6)  sectorsize:INT
(  8)  xlecc:INT
( 10)  ejectreset:INT
( 12)  reserved1[4]:ARRAY OF INT
( 20)  maxspeed:INT
( 22)  audioprecision:INT
( 24)  status:INT
( 26)  reserved2[4]:ARRAY OF INT
(----) ENDOBJECT      /* SIZEOF=34 */

CONST CDERR_BADDATATYPE=$24,
      CDERR_BADDRIVETYPE=$21,
      CD_GETDRIVETYPE=18,

```

```
CDERR_BADLENGTH=-4,
CD_REMOVE=12,
CDERR_SELFTEST=-7,
CD_WRITE=3,
CD_CHANGENUM=13,
ADR_UPC=2,
CD_FLUSH=8,
CDMODE_NORMAL=0,
CD_PLAYTRACK=$25,
CD_START=7,
CDERR_BADSECHDR=27,
CDERR_NOSECHDR=21,
CTL_COPY=$20,
CD_PAUSE=$28,
CD_FORMAT=11,
CD_PROTSTATUS=15,
ADR_HYBRID=5,
CD_PLAYLSN=$27,
CTL_DATA=$40,
CDERR_NOMEM=31,
CDSTSF_SPIN=4,
CDSTSB_SPIN=2,
CDERR_INVALIDSTATE=$25,
CDERR_BADSECID=23,
CD_CHANGESTATE=14,
CD_UPDATE=4,
CDERR_BADADDRESS=-5,
CDERR_OPENFAIL=-1,
TAGCD_READXLSPEED=3,
TAGCD_READSPEED=2,
TAGCD_PLAYSPEED=1,
CTLADR_ADRMASK=15,
CTL_COPYMASK=$20,
CTL_CTLMASK=$D0,
CTLADR_CTLMASK=$F0,
CTL_4AUD=$80,
CDSTSF_CDROM=16,
CDSTSB_CDROM=4,
CDERR_ABORTED=-2,
CD_STOP=6,
CDSTSF_PAUSED=$40,
CDSTSF_PLAYING=$20,
CDSTSB_PAUSED=6,
CDSTSB_PLAYING=5,
CD_EJECT=23,
CDMODE_FFWD=1,
CDSTSF_SEARCH=$80,
CDSTSB_SEARCH=7,
CD_SEARCH=$29,
CDERR_BADHDRSUM=24,
CD_PLAYMSF=$26,
ADR_POSITION=1,
CDSTSF_DIRECTION=$100,
CDSTSB_DIRECTION=8,
CD_CLEAR=5,
TAGCD_EJECTRESET=6,
CDERR_POSTRESET=$23,
```

```

CD_RESET=1,
CDERR_TOOFWSECS=26,
CTL_2AUD=0,
TAGCD_XLECC=5,
CTL_4AUDEMPH=$90,
CTL_2AUDEMPH=16,
CDERR_SEEKERROR=30,
CD_QCODELSN=$2B,
CD_SEEK=10,
CD_GETNUMTRACKS=19,
CDSTSF_TOC=8,
CDSTSB_TOC=3,
CDERR_NOTSPECIFIED=20,
CDMODE_FREV=2,
CD_INFO=$20,
CD_GETGEOMETRY=22,
CD_ATTENUATE=$2C,
CDERR_WRITEPROT=28,
CDERR_UNITBUSY=-6,
CD_MOTOR=9,
CDERR_BADUNITNUM=$20,
CD_QCODEMSF=$2A,
CD_TOCLSN=$23,
CDERR_BADSECPREAMBLE=22,
CD_REMFRAMEINT=$2E,
CD_ADDFRAMEINT=$2D,
CD_REMCHANGEINT=21,
CD_ADDCHANGEINT=20,
CDERR_BADSECSUM=25,
CDERR_PHASE=$2A,
CD_READ=2,
CDERR_NOCMD=-3,
CDSTSF_CLOSED=1,
CDSTSB_CLOSED=0,
CDSTSF_DISK=2,
CDSTSB_DISK=1,
CDERR_NODISK=29,
CD_TOCMSF=$22,
CDERR_DRIVEINUSE=$22,
ADR_ISRC=3,
CD_READXL=$24,
TAGCD_SECTORSIZE=4,
CD_CONFIG=$21,
CDERR_NOBOARD=$32

```

1.29 clipboard.m

```

(----) OBJECT cliphookmsg
( 0) type:LONG
( 4) changecmd:LONG
( 8) clipid:LONG
(----) ENDOBJECT /* SIZEOF=12 */

(----) OBJECT satisfymsg
( 0) msg:mn (or ARRAY OF mn)

```

```

( 20)    unit:INT
( 22)    clipid:LONG
(----) ENDOBJECT      /* SIZEOF=26 */

(----) OBJECT ioclipreq
(  0)    message:mn (or ARRAY OF mn)
( 20)    device:PTR TO dd
( 24)    unit:PTR TO clipboardunitpartial
( 28)    command:INT
( 30)    flags:CHAR
( 31)    error:CHAR
( 32)    actual:LONG
( 36)    length:LONG
( 40)    data:PTR TO CHAR
( 44)    offset:LONG
( 48)    clipid:LONG
(----) ENDOBJECT      /* SIZEOF=52 */

(----) OBJECT clipboardunitpartial
(  0)    node:ln (or ARRAY OF ln)
( 14)    unitnum:LONG
(----) ENDOBJECT      /* SIZEOF=18 */

CONST CBD_POST=9,
      CBERR_OBSOLETEID=1,
      CBD_CURRENTWRITEID=11,
      DEVICES_CLIPBOARD_I=1,
      CBD_CURRENTREADID=10,
      CBD_CHANGEHOOK=12,
      PRIMARY_CLIP=0

```

1.30 console.m

```

CONST TBC_HCLRTABSALL=3,
      CTC_HCLRTABSALL=5,
      CD_SETDEFAULTKEYMAP=12,
      CD_ASKDEFAULTKEYMAP=11,
      CD_SETKEYMAP=10,
      CD_ASKKEYMAP=9,
      SGR_CLR3BG=$2B,
      SGR_NOTITALIC=23,
      SGR_ITALIC=3,
      SGR_POSITIVE=27,
      SGR_NEGATIVE=7,
      SGR_BLUEBG=$2C,
      SGR_NORMAL=22,
      SGR_BOLD=1,
      SGR_GREEN=$20,
      SGR_NOTUNDERSCORE=24,
      SGR_UNDERSCORE=4,
      SGR_CLR4BG=$2C,
      SGR_PRIMARY=0,
      DSR_CPR=6,
      SGR_YELLOW=$21,
      SGR_BLUE=$22,

```

```

SGR_CLR0BG=$28,
M_LNM=20,
SGR_CLR5BG=$2D,
SGR_CLR0=30,
SGR_CLR1=31,
SGR_YELLOWBG=$2B,
SGR_CLR2=$20,
SGR_DEFAULT=$27,
SGR_CLR3=$21,
SGR_CLR4=$22,
SGR_CLR5=$23,
SGR_CLR6=$24,
SGR_CLR7=$25,
SGR_CYAN=$24,
SGR_WHITE=$25,
SGR_BLACKBG=$28,
SGR_DEFAULTBG=$31,
SGR_CLR1BG=$29,
SGR_GREENBG=$2A,
SGR_RED=31,
SGR_BLACK=30,
SGR_CLR6BG=$2E,
SGR_WHITEBG=$2F,
CTC_HSETTAB=0,
SGR_CLR2BG=$2A,
SGR_MAGENTABG=$2D,
SGR_CLR7BG=$2F,
SGR_REDBG=$29,
SGR_MAGENTA=$23,
SGR_CYANBG=$2E,
TBC_HCLRTAB=0,
CTC_HCLRTAB=2

```

```
#define M_ASM/0
```

```
#define M_AWM/0
```

1.31 conunit.m

```

(----) OBJECT conunit
( 0) mp:mp (or ARRAY OF mp)
( 34) window:PTR TO window
( 38) xcp:INT
( 40) ycp:INT
( 42) xmax:INT
( 44) ymax:INT
( 46) xrsiz:INT
( 48) yrsiz:INT
( 50) xrorigin:INT
( 52) yrorigin:INT
( 54) xrextant:INT
( 56) yrextant:INT
( 58) xminshrink:INT
( 60) yminshrink:INT
( 62) xccp:INT
( 64) yccp:INT

```

```
( 66)    keymapstruct:keymap (or ARRAY OF keymap)
( 98)    tabstops[80]:ARRAY OF INT
( 258)    mask:CHAR
( 259)    fgpen:CHAR
( 260)    bgpen:CHAR
( 261)    aolpen:CHAR
( 262)    drawmode:CHAR
( 263)    obsolete1:CHAR
( 264)    obsolete2:LONG
( 268)    minters[8]:ARRAY OF CHAR
( 276)    font:PTR TO textfont
( 280)    algostyle:CHAR
( 281)    txflags:CHAR
( 282)    txheight:INT
( 284)    txwidth:INT
( 286)    txbaseline:INT
( 288)    txspacing:INT
( 290)    modes[3]:ARRAY OF CHAR
( 293)    rawevents[4]:ARRAY OF CHAR
(----) ENDOBJECT      /* SIZEOF=297 */
```

```
CONST CONU_STANDARD=0,
      PMB_ASM=21,
      CONU_CHARMAP=1,
      CONU_SNIPMAP=3,
      CONU_LIBRARY=-1,
      PMB_AWM=22,
      CONFLAG_DEFAULT=0,
      MAXTABS=$50,
      CONFLAG_NODRAW_ON_NEWSIZE=1
```

1.32 gameport.m

```
(----) OBJECT gameporttrigger
( 0)    keys:INT
( 2)    timeout:INT
( 4)    xdelta:INT
( 6)    ydelta:INT
(----) ENDOBJECT      /* SIZEOF=8 */
```

```
CONST GPDERR_SETCTYPE=1,
      GPD_SETCTYPE=11,
      GPD_ASKCTYPE=10,
      GPD_READEVENT=9,
      GPCT_MOUSE=1,
      GPTF_UPKEYS=2,
      GPTB_UPKEYS=1,
      GPTF_DOWNKEYS=1,
      GPTB_DOWNKEYS=0,
      GPD_SETTRIGGER=13,
      GPD_ASKTRIGGER=12,
      GPCT_ABSJOYSTICK=3,
      GPCT_RELJOYSTICK=2,
      GPCT_NOCONTROLLER=0,
```



```
GPCT_ALLOCATED=-1
```

1.33 hardblocks.m

```
(----) OBJECT loadsegblock
(  0)   id:LONG
(  4)   summedlongs:LONG
(  8)   chksum:LONG
( 12)   hostid:LONG
( 16)   next:LONG
( 20)   loaddata[123]:ARRAY OF LONG
(----) ENDOBJECT      /* SIZEOF=512 */

(----) OBJECT filesysheaderblock
(  0)   id:LONG
(  4)   summedlongs:LONG
(  8)   chksum:LONG
( 12)   hostid:LONG
( 16)   next:LONG
( 20)   flags:LONG
( 24)   reserved1[2]:ARRAY OF LONG
( 32)   dostype:LONG
( 36)   version:LONG
( 40)   patchflags:LONG
( 44)   type:LONG
( 48)   task:LONG
( 52)   lock:LONG
( 56)   handler:LONG
( 60)   stacksize:LONG
( 64)   priority:LONG
( 68)   startup:LONG
( 72)   seglistblocks:LONG
( 76)   globalvec:LONG
( 80)   reserved2[23]:ARRAY OF LONG
( 172)  reserved3[21]:ARRAY OF LONG
(----) ENDOBJECT      /* SIZEOF=256 */

(----) OBJECT partitionblock
(  0)   id:LONG
(  4)   summedlongs:LONG
(  8)   chksum:LONG
( 12)   hostid:LONG
( 16)   next:LONG
( 20)   flags:LONG
( 24)   reserved1[2]:ARRAY OF LONG
( 32)   devflags:LONG
( 36)   drivename[32]:ARRAY OF CHAR
( 68)   reserved2[15]:ARRAY OF LONG
( 128)  environment[17]:ARRAY OF LONG
( 196)  ereserved[15]:ARRAY OF LONG
(----) ENDOBJECT      /* SIZEOF=256 */

(----) OBJECT badblockblock
(  0)   id:LONG
(  4)   summedlongs:LONG
```

```

( 8)  checksum:LONG
( 12) hostid:LONG
( 16) next:LONG
( 20) reserved:LONG
( 24) blockpairs:badblockentry (or ARRAY OF badblockentry)
(----) ENDOBJECT      /* SIZEOF=512 */

(----) OBJECT badblockentry
( 0)  badblock:LONG
( 4)  goodblock:LONG
(----) ENDOBJECT      /* SIZEOF=8 */

(----) OBJECT rigiddiskblock
( 0)  id:LONG
( 4)  summedlongs:LONG
( 8)  checksum:LONG
( 12) hostid:LONG
( 16) blockbytes:LONG
( 20) flags:LONG
( 24) badblocklist:LONG
( 28) partitionlist:LONG
( 32) filesysheaderlist:LONG
( 36) driveinit:LONG
( 40) reserved1[6]:ARRAY OF LONG
( 64) cylinders:LONG
( 68) sectors:LONG
( 72) heads:LONG
( 76) interleave:LONG
( 80) park:LONG
( 84) reserved2[3]:ARRAY OF LONG
( 96) writeprecomp:LONG
( 100) reducedwrite:LONG
( 104) steprate:LONG
( 108) reserved3[5]:ARRAY OF LONG
( 128) rdbbblockslo:LONG
( 132) rdbbblockshi:LONG
( 136) locylinder:LONG
( 140) hicylinder:LONG
( 144) cylblocks:LONG
( 148) autoparkseconds:LONG
( 152) highrdskbblock:LONG
( 156) reserved4:LONG
( 160) diskvendor[8]:ARRAY OF CHAR
( 168) diskproduct[16]:ARRAY OF CHAR
( 184) diskrevision[4]:ARRAY OF CHAR
( 188) controllervendor[8]:ARRAY OF CHAR
( 196) controllerproduct[16]:ARRAY OF CHAR
( 212) controllerrevision[4]:ARRAY OF CHAR
( 216) reserved5[10]:ARRAY OF LONG
(----) ENDOBJECT      /* SIZEOF=256 */

CONST RDBFF_DISKID=16,
      RDBFB_DISKID=4,
      IDNAME_BADBLOCK=$42414442,
      RDBFF_LASTLUN=2,
      RDBFB_LASTLUN=1,
      RDBFF_SYNCH=$40,

```

```

RDBFB_SYNCH=6,
PBFF_BOOTABLE=1,
PBFF_BOOTABLE=0,
IDNAME_PARTITION=$50415254,
RDBFF_LASTTID=4,
RDBFB_LASTTID=2,
IDNAME_FILESYSHEADER=$46534844,
RDBFF_NORESELECT=8,
RDBFB_NORESELECT=3,
RDB_LOCATION_LIMIT=16,
RDBFF_CTRLRID=$20,
RDBFB_CTRLRID=5,
PBFF_NOMOUNT=2,
PBFF_NOMOUNT=1,
IDNAME_RIGIDDISK=$5244534B,
RDBFF_LAST=1,
RDBFB_LAST=0,
IDNAME_LOADSEG=$4C534547

```

1.34 input.m

```

CONST IND_SETMTRIG=16,
      IND_SETMTYPE=15,
      IND_SETMPORT=14,
      IND_REMHANDLER=10,
      IND_ADDHANDLER=9,
      IND_SETTHRESH=12,
      IND_WRITEEVENT=11,
      IND_SETPERIOD=13

```

1.35 inputevent.m

```

(----) OBJECT inputevent
(  0)  nextevent:PTR TO inputevent
(  4)  class:CHAR
(  5)  subclass:CHAR
(  6)  code:INT
(  8)  qualifier:INT
( 10)  eventaddress:LONG
( 10)  x:INT
( 10)  prevldowncode:CHAR
( 11)  prevldownqual:CHAR
( 12)  y:INT
( 12)  prev2downcode:CHAR
( 13)  prev2downqual:CHAR
( 14)  timestamp:timeval (or ARRAY OF timeval)
(----) ENDOBJECT      /* SIZEOF=22 */

(----) OBJECT ienewtablet
(  0)  callback:PTR TO hook
(  4)  scaledx:INT
(  6)  scaledy:INT

```

```

( 8)    scaledxfraction:INT
( 10)   scaledyfraction:INT
( 12)   tabletX:LONG
( 16)   tabletY:LONG
( 20)   rangeX:LONG
( 24)   rangeY:LONG
( 28)   taglist:PTR TO tagitem
(----) ENDOBJECT      /* SIZEOF=32 */

(----) OBJECT iepointertablet
( 0)    rangeX:INT
( 2)    rangeY:INT
( 4)    valueX:INT
( 6)    valueY:INT
( 8)    pressure:INT
(----) ENDOBJECT      /* SIZEOF=10 */

(----) OBJECT iepointerpixel
( 0)    screen:PTR TO screen
( 4)    positionX:INT
( 6)    positionY:INT
(----) ENDOBJECT      /* SIZEOF=8 */

CONST IEQUALIFIERB_REPEAT=9,
      IEQUALIFIER_REPEAT=$200,
      IECLASS_GADGETDOWN=7,
      IECLASS_NEWPOINTERPOS=19,
      IECLASS_POINTERPOS=4,
      IECODE_NEWACTIVE=1,
      IESUBCLASS_PIXEL=1,
      IEQUALIFIERB_LALT=4,
      IEQUALIFIER_LALT=16,
      IECODE_REFRESH=3,
      IECLASS_NULL=0,
      IEQUALIFIERB_CAPSLOCK=2,
      IEQUALIFIER_CAPSLOCK=4,
      IECLASS_NEWPREFS=14,
      IESUBCLASS_NEWTABLET=3,
      IESUBCLASS_TABLET=2,
      IEQUALIFIERB_CONTROL=3,
      IEQUALIFIER_CONTROL=8,
      IECLASS_EVENT=3,
      IECLASS_DISKINSERTED=16,
      IEQUALIFIERB_RELATIVEMOUSE=15,
      IEQUALIFIER_RELATIVEMOUSE=$8000,
      IECLASS_RAWMOUSE=2,
      IECLASS_TIMER=6,
      IECODE_REQCLEAR=0,
      IEQUALIFIERB_INTERRUPT=10,
      IEQUALIFIER_INTERRUPT=$400,
      IECLASS_DISKREMOVED=15,
      IECLASS_RAWKEY=1,
      IEQUALIFIERB_NUMERICPAD=8,
      IEQUALIFIER_NUMERICPAD=$100,
      IEQUALIFIERB_RSHIFT=1,
      IEQUALIFIERB_LSHIFT=0,
      IEQUALIFIER_RSHIFT=2,

```

```

IEQUALIFIER_LSHIFT=1,
IECLASS_MENULIST=10,
IEQUALIFIERB_RALT=5,
IEQUALIFIER_RALT=$20,
IEQUALIFIERB_RCOMMAND=7,
IEQUALIFIERB_LCOMMAND=6,
IEQUALIFIER_RCOMMAND=$80,
IEQUALIFIER_LCOMMAND=$40,
IESUBCLASS_COMPATIBLE=0,
IECODE_ASCII_DEL=$7F,
IEQUALIFIERB_LEFTBUTTON=14,
IEQUALIFIERB_RBUTTON=13,
IEQUALIFIERB_MIDBUTTON=12,
IEQUALIFIER_LEFTBUTTON=$4000,
IEQUALIFIER_RBUTTON=$2000,
IEQUALIFIER_MIDBUTTON=$1000,
IECODE_NOBUTTON=$FF,
IECODE_MBUTTON=$6A,
IECODE_RBUTTON=$69,
IECODE_LBUTTON=$68,
IECODE_REQSET=1,
IECLASS_REQUESTER=9,
IEQUALIFIERB_MULTIBROADCAST=11,
IEQUALIFIER_MULTIBROADCAST=$800,
IECLASS_GADGETUP=8,
IECLASS_CHANGEWINDOW=21,
IECLASS_INACTIVIEWINDOW=18,
IECLASS_ACTIVIEWINDOW=17,
IECLASS_REFRESHWINDOW=13,
IECLASS_SIZEWINDOW=12,
IECLASS_CLOSEWINDOW=11,
IECODE_LATIN1_FIRST=$A0,
IECODE_C1_FIRST=$80,
IECODE_ASCII_FIRST=$20,
IECODE_C0_FIRST=0,
IECODE_COMM_CODE_FIRST=$78,
IECODE_KEY_CODE_FIRST=0,
IECODE_LATIN1_LAST=$FF,
IECODE_C1_LAST=$9F,
IECODE_ASCII_LAST=$7E,
IECODE_C0_LAST=31,
IECODE_COMM_CODE_LAST=$7F,
IECODE_KEY_CODE_LAST=$77,
IECODEB_UP_PREFIX=7,
IECODE_UP_PREFIX=$80,
IECLASS_MAX=21,
IECLASS_MENUHELP=20,
IECODE_NEWSIZE=2

```

1.36 keyboard.m

```

CONST KBD_REMRESETHANDLER=12,
      KBD_ADDRESETHANDLER=11,
      KBD_READMATRIX=10,
      KBD_RESETHANDLERDONE=13,

```

```
KBD_READEVENT=9
```

1.37 keymap.m

```
(----) OBJECT keymapresource
(  0)  node:ln (or ARRAY OF ln)
( 14)  list:lh (or ARRAY OF lh)
(----) ENDOBJECT      /* SIZEOF=28 */

(----) OBJECT keymapnode
(  0)  node:ln (or ARRAY OF ln)
( 14)  keymap:keymap (or ARRAY OF keymap)
(----) ENDOBJECT      /* SIZEOF=46 */

(----) OBJECT keymap
(  0)  lokeymaptypes:PTR TO CHAR
(  4)  lokeymap:PTR TO LONG
(  8)  locapsable:PTR TO CHAR
( 12)  lorepeatable:PTR TO CHAR
( 16)  hikeymaptypes:PTR TO CHAR
( 20)  hikeymap:PTR TO LONG
( 24)  hicapsable:PTR TO CHAR
( 28)  hirepeatable:PTR TO CHAR
(----) ENDOBJECT      /* SIZEOF=32 */

CONST DP_2DINDEXMASK=15,
      KCF_CONTROL=4,
      KCB_CONTROL=2,
      KC_VANILLA=7,
      KCF_ALT=2,
      KCB_ALT=1,
      KCF_STRING=$40,
      KCB_STRING=6,
      DP_2DFACSHIFT=4,
      KCF_SHIFT=1,
      KCB_SHIFT=0,
      DPF_DEAD=8,
      DPB_DEAD=3,
      KCF_DEAD=$20,
      KCB_DEAD=5,
      DPF_MOD=1,
      DPB_MOD=0,
      KC_NOQUAL=0,
      KCF_DOWNUP=8,
      KCB_DOWNUP=3,
      KCF_NOP=$80,
      KCB_NOP=7
```

1.38 narrator.m

```
(----) OBJECT mrb
(  0)  ndi:ndi (or ARRAY OF ndi)
```

```

( 88)    width:CHAR
( 89)    height:CHAR
( 90)    shape:CHAR
( 91)    sync:CHAR
(----) ENDOBJECT      /* SIZEOF=92 */

(----) OBJECT ndi
(  0)    iostd:iostd (or ARRAY OF iostd)
( 48)    rate:INT
( 50)    pitch:INT
( 52)    mode:INT
( 54)    sex:INT
( 56)    chmasks:PTR TO CHAR
( 60)    nummasks:INT
( 62)    volume:INT
( 64)    sampfreq:INT
( 66)    mouths:CHAR
( 67)    chanmask:CHAR
( 68)    numchan:CHAR
( 69)    flags:CHAR
( 70)    f0enthusiasm:CHAR
( 71)    f0perturb:CHAR
( 72)    fladj:CHAR
( 73)    f2adj:CHAR
( 74)    f3adj:CHAR
( 75)    aladj:CHAR
( 76)    a2adj:CHAR
( 77)    a3adj:CHAR
( 78)    articulate:CHAR
( 79)    centralize:CHAR
( 80)    centphon:PTR TO CHAR
( 84)    avbias:CHAR
( 85)    afbias:CHAR
( 86)    priority:CHAR
( 87)    padl:CHAR
(----) ENDOBJECT      /* SIZEOF=88 */

CONST MAXPITCH=$140,
      MINPITCH=$41,
      DEFPITCH=$6E,
      MAXCENT=$64,
      MINCENT=0,
      ND_NOWRITE=-8,
      ND_UNIMPL=-7,
      DEFPPRIORITY=$64,
      ND_NOMEM=-2,
      NDF_SYLSYNC=4,
      NDF_WORDSYNC=2,
      NDB_SYLSYNC=2,
      NDB_WORDSYNC=1,
      ND_CANTALLOC=-6,
      ND_NOAUDLIB=-3,
      ND_NOTUSED=-1,
      DEFF0PERT=0,
      ND_MODEERR=-24,
      ND_RATEERR=-21,
      MAXRATE=$190,

```

```

MINRATE=$28,
DEFRATE=$96,
ND_MAKEBAD=-4,
DEFCENTRAL=0,
ND_CENTPHONERR=-28,
ND_PHONERR=-20,
FEMALE=1,
MALE=0,
ROBOTICF0=1,
MAXFREQ=$6D60,
MINFREQ=$1388,
DEFFREQ=$56B8,
DEFARTIC=$64,
ND_SEXERR=-23,
ND_PITCHERR=-22,
MINVOL=0,
ND_VOLERR=-26,
NDF_NEWIORB=1,
NDB_NEWIORB=0,
DEFMODE=0,
ND_FREQERR=-25,
MANUALF0=2,
NATURALF0=0,
MAXVOL=$40,
DEFSEX=0,
DEFF0ENTHUS=$20,
ND_EXPUNGED=-9,
DEFVOL=$40,
ND_DCENTERERR=-27,
ND_UNITERR=-5

```

1.39 parallel.m

```

(----) OBJECT ioextpar
( 0) iostd:iostd (or ARRAY OF iostd)
( 48) pextflags:LONG
( 52) parstatus:CHAR
( 53) parflags:CHAR
( 54) ptermarray:ioparray (or ARRAY OF ioparray)
(----) ENDOBJECT /* SIZEOF=62 */

(----) OBJECT ioparray
( 0) ptermarray0:LONG
( 4) ptermarray1:LONG
(----) ENDOBJECT /* SIZEOF=8 */

CONST IOPARF_ACTIVE=16,
IOPARB_ACTIVE=4,
IOPTF_PAPEROUT=2,
IOPTB_PAPEROUT=1,
IOPTF_PARSEL=4,
IOPTB_PARSEL=2,
PARERR_INVPARAM=3,
PARERR_NOTOPEN=5,
IOPTF_RWDIR=8,

```

```

IOPTB_RWDIR=3,
PAR_DEVFINISH=10,
PARERR_LINEERR=4,
PARERR_PORTRESET=6,
PDCMD_QUERY=9,
PARF_SHARED=$20,
PARB_SHARED=5,
PARERR_BUFTOOBIG=2,
PARF_RAD_BOOGIE=8,
PARB_RAD_BOOGIE=3,
IOPTF_PARBUSY=1,
IOPTB_PARBUSY=0,
PARERR_DEVBUSY=1,
PARF_EOFMODE=2,
PARB_EOFMODE=1,
PARF_ACKMODE=4,
PARB_ACKMODE=2,
PARF_FASTMODE=8,
PARB_FASTMODE=3,
PARF_SLOWMODE=16,
PARB_SLOWMODE=4,
PDCMD_SETPARAMS=10,
IOPARF_QUEUED=$40,
IOPARB_QUEUED=6,
IOPARF_ABORT=$20,
IOPARB_ABORT=5,
PARERR_INITERR=7

```

```
#define PARALLELNAME/0
```

1.40 printer.m

```

(----) OBJECT iodrpreq
(  0)   io:io (or ARRAY OF io)
( 32)   rastport:PTR TO rastport
( 36)   colormap:PTR TO colormap
( 40)   modes:LONG
( 44)   srcx:INT
( 46)   srcy:INT
( 48)   srcwidth:INT
( 50)   srcheight:INT
( 52)   destcols:LONG
( 56)   destrows:LONG
( 60)   special:INT
(----) ENDOBJECT      /* SIZEOF=62 */

(----) OBJECT ioprtdreq
(  0)   io:io (or ARRAY OF io)
( 32)   prtcommand:INT
( 34)   parm0:CHAR
( 35)   parm1:CHAR
( 36)   parm2:CHAR
( 37)   parm3:CHAR
(----) ENDOBJECT      /* SIZEOF=38 */

```

```
CONST AIND=2,  
      ATBSALL=$4A,  
      ATBCALL=$49,  
      ATSS=$30,  
      AJFY0=$34,  
      ATBC0=$45,  
      AFNT10=$2C,  
      ATBC1=$47,  
      AJFY2=$35,  
      AJFY3=$36,  
      ATBC3=$46,  
      ATBC4=$48,  
      AJFY5=$31,  
      PRD_DUMPRPORT=11,  
      PDERR_CANCEL=1,  
      AJFY6=$33,  
      AJFY7=$32,  
      APERF0=$3B,  
      PRD_RAWWRITE=9,  
      SPECIAL_TRUSTME=$1000,  
      SPECIAL_ASPECT=$80,  
      ALMS=$3C,  
      ANEL=3,  
      ARAW=$4C,  
      SPECIAL_FRACROWS=$20,  
      SPECIAL_FULLROWS=8,  
      SPECIAL_MILROWS=2,  
      APERF=$3A,  
      SPECIAL_DIMENSIONSMASK=$BF,  
      SPECIAL_DENSITYMASK=$700,  
      PDERR_TOOKCONTROL=8,  
      AFNT0=$22,  
      PDERR_INVERTHAM=3,  
      AFNT1=$23,  
      ADEN1=26,  
      AFNT2=$24,  
      ADEN2=25,  
      AFNT3=$25,  
      ADEN3=24,  
      AFNT4=$26,  
      ADEN4=23,  
      AFNT5=$27,  
      ADEN5=22,  
      AFNT6=$28,  
      ADEN6=21,  
      AFNT7=$29,  
      AFNT8=$2A,  
      AFNT9=$2B,  
      PDERR_NOTGRAPHICS=2,  
      ATMS=$3E,  
      APLD=$21,  
      ASHORP0=14,  
      ASHORP1=16,  
      ASHORP2=15,  
      ASHORP3=18,  
      AEXTEND=$4B,  
      ASHORP4=17,
```

```
ASHORP5=20,  
ASHORP6=19,  
ASGR22=11,  
ASGR23=7,  
ASGR24=9,  
PRD_QUERY=12,  
APLU=$20,  
ARI=4,  
ASBC=13,  
PDERR_DIMENSIONOVFLOW=5,  
ASLPP=$39,  
SPECIAL_NOPRINT=$2000,  
ABMS=$3F,  
AVTS=$44,  
ASTBM=$40,  
AHTS=$43,  
APROP0=$2F,  
APROP1=$2E,  
APROP2=$2D,  
SPECIAL_DENSITY1=$100,  
SPECIAL_DENSITY2=$200,  
SPECIAL_DENSITY3=$300,  
SPECIAL_FRACCOLS=16,  
SPECIAL_FULLCOLS=4,  
SPECIAL_MILCOLS=1,  
ASLRM=$41,  
SPECIAL_DENSITY4=$400,  
SPECIAL_DENSITY5=$500,  
SPECIAL_DENSITY6=$600,  
SPECIAL_DENSITY7=$700,  
PRD_PRTCOMMAND=10,  
SPECIAL_CENTER=$40,  
ASFC=12,  
SPECIAL_NOFORMFEED=$800,  
ARIN=1,  
ASGR0=5,  
ASGR1=10,  
ARIS=0,  
PDERR_BUFFERMEMORY=7,  
PDERR_INTERNALMEMORY=6,  
ASGR3=6,  
AVERP0=$37,  
ASGR4=8,  
AVERP1=$38,  
ASUS0=31,  
DEVICES_PRINTER_I=1,  
ASUS1=28,  
ASUS2=27,  
ASUS3=30,  
ASUS4=29,  
PDERR_NOERR=0,  
ARMS=$3D,  
PDERR_BADDIMENSION=4,  
ACAM=$42
```

1.41 prtbase.m

```

(----) OBJECT printersegment
(   0)   nextsegment:LONG
(   4)   runalert:LONG
(   8)   version:INT
(  10)   revision:INT
(  12)   ped:printerextendeddata (or ARRAY OF printerextendeddata)
(----) ENDOBJECT      /* SIZEOF=78 */

(----) OBJECT printerextendeddata
(   0)   printername:PTR TO CHAR
(   4)   init:LONG
(   8)   expunge:LONG
(  12)   open:LONG
(  16)   close:LONG
(  20)   printerclass:CHAR
(  21)   colorclass:CHAR
(  22)   maxcolumns:CHAR
(  23)   numcharsets:CHAR
(  24)   numrows:INT
(  26)   maxxdots:LONG
(  30)   maxydots:LONG
(  34)   xdotsinch:INT
(  36)   ydotsinch:INT
(  38)   commands:PTR TO LONG
(  42)   dospecial:LONG
(  46)   render:LONG
(  50)   timeoutsecs:LONG
(  54)   x8bitchars:PTR TO LONG
(  58)   printmode:LONG
(  62)   convfunv:LONG
(----) ENDOBJECT      /* SIZEOF=66 */

(----) OBJECT printerdata
(   0)   dd:devicedata (or ARRAY OF devicedata)
(  52)   unit:mp (or ARRAY OF mp)
(  86)   printersegment:LONG
(  90)   printertype:INT
(  92)   segmentdata:PTR TO printersegment
(  96)   printbuf:PTR TO CHAR
( 100)   pwrite:LONG
( 104)   pbothready:LONG
( 108)   p0:ioextpar (or ARRAY OF ioextpar)
( 108)   s0:ioextser (or ARRAY OF ioextser)
( 190)   p1:ioextpar (or ARRAY OF ioextpar)
( 190)   s1:ioextser (or ARRAY OF ioextser)
( 272)   tior:timerequest (or ARRAY OF timerequest)
( 312)   iorport:mp (or ARRAY OF mp)
( 346)   tc:tc (or ARRAY OF tc)
( 438)   oldstk[2048]:ARRAY OF CHAR
(2486)   flags:CHAR
(2487)   pad:CHAR
(2488)   preferences:preferences (or ARRAY OF preferences)
(2720)   pwaitenabld:CHAR
(2721)   pad1:CHAR

```

```

(2722)    stk[4096]:ARRAY OF CHAR
(----) ENDOBJECT      /* SIZEOF=6818 */

(----) OBJECT devicedata
(   0)    lib:lib (or ARRAY OF lib)
(  34)    segment:LONG
(  38)    exeibase:LONG
(  42)    cmdvectors:LONG
(  46)    cmdbytes:PTR TO CHAR
(  50)    numcommands:INT
(----) ENDOBJECT      /* SIZEOF=52 */

CONST PCC_ADDITIVE=8,
      PCC_YMCB=4,
      IOF_DONE=$80,
      PPC_COLORALPHA=2,
      PPC_BWALPHA=0,
      P_PRIORITY=0,
      DEVICES_PRTBASE_I=1,
      PCC_BGR=10,
      PPCF_GFX=1,
      PPCB_GFX=0,
      PCC_YMC_BW=3,
      PCC_BW=1,
      PCC_YMC=2,
      PCC_MULTI_PASS=16,
      PCC_4COLOR=4,
      PPCF_COLOR=2,
      PPCB_COLOR=1,
      PCC_BGR_WB=11,
      PF_IOR0=1,
      PCC_BGRW=12,
      PF_IOR1=2,
      DUF_STOPPED=1,
      IOF_CURRENT=$20,
      PPC_COLORGFX=3,
      IOF_QUEUED=16,
      PPC_BWGFX=1,
      IOF_SERVICING=$40,
      PF_EXPUNGED=$80,
      P_SAFE_SIZE=$80,
      P_BUF_SIZE=$100,
      P_STK_SIZE=$1000,
      P_OLDSTK_SIZE=$800,
      DU_FLAGS=9,
      PCC_WB=9

```

1.42 prtgfx.m

```

(----) OBJECT prtinfo
(   0)    render:LONG
(   4)    rp:PTR TO rastport
(   8)    temprp:PTR TO rastport
(  12)    rowbuf:PTR TO INT
(  16)    hambuf:PTR TO INT

```

```

( 20) colormap:PTR TO colorentry
( 24) colorint:PTR TO colorentry
( 28) hamint:PTR TO colorentry
( 32) dest1int:PTR TO colorentry
( 36) dest2int:PTR TO colorentry
( 40) scalex:PTR TO INT
( 44) scalexalt:PTR TO INT
( 48) dmatrix:PTR TO CHAR
( 52) topbuf:PTR TO INT
( 56) botbuf:PTR TO INT
( 60) rowbufsize:INT
( 62) hambufsize:INT
( 64) colormapsize:INT
( 66) colorintsize:INT
( 68) hamintsize:INT
( 70) dest1intsize:INT
( 72) dest2intsize:INT
( 74) scalexsize:INT
( 76) scalexaltsize:INT
( 78) prefsflags:INT
( 80) special:LONG
( 84) xstart:INT
( 86) ystart:INT
( 88) width:INT
( 90) height:INT
( 92) pc:LONG
( 96) pr:LONG
(100) ymult:INT
(102) ymod:INT
(104) ety:INT
(106) xpos:INT
(108) threshold:INT
(110) tempwidth:INT
(112) flags:INT
(----) ENDOBJECT      /* SIZEOF=114 */

(----) OBJECT colorentry
(  0) colorlong:LONG
(  0) colorbyte[4]:ARRAY OF CHAR
(----) ENDOBJECT      /* SIZEOF=4 */

CONST PCMGREEN=1,
      PCMYELLOW=0,
      PCMBLUE=0,
      PCMCYAN=2,
      PCMWHITE=3,
      PCMBLACK=3,
      PCMRED=2,
      PCMMAGENTA=1

```

1.43 scsidisk.m

```

(----) OBJECT scsicmd
(  0) data:PTR TO INT
(  4) length:LONG

```

```
( 8)  actual:LONG
( 12)  command:PTR TO CHAR
( 16)  cmdlength:INT
( 18)  cmdactual:INT
( 20)  flags:CHAR
( 21)  status:CHAR
( 22)  sensedata:PTR TO CHAR
( 26)  senselength:INT
( 28)  senseactual:INT
(----) ENDOBJECT      /* SIZEOF=30 */
```

```
CONST HFERR_DMA=$29,
      SCSIB_READ_WRITE=0,
      SCSIF_WRITE=0,
      DEVICES_SCSIDISK_I=1,
      HFERR_BADSTATUS=$2D,
      HFERR_PARITY=$2B,
      HFERR_SELFUNIT=$28,
      HFERR_SELTIMEOUT=$2C,
      HFERR_PHASE=$2A,
      SCSIF_READ=1,
      SCSIB_OLDAUTOSENSE=2,
      SCSIB_AUTOSENSE=1,
      SCSIF_OLDAUTOSENSE=6,
      SCSIF_AUTOSENSE=2,
      SCSIF_NOSENSE=0,
      HD_SCSICMD=28,
      HFERR_NOBOARD=$32
```

1.44 serial.m

```
(----) OBJECT ioextser
( 0)  iostd:iostd (or ARRAY OF iostd)
( 48)  ctlchar:LONG
( 52)  rbuflen:LONG
( 56)  extflags:LONG
( 60)  baud:LONG
( 64)  brktime:LONG
( 68)  termarray:termarray (or ARRAY OF termarray)
( 76)  readlen:CHAR
( 77)  writelen:CHAR
( 78)  stopbits:CHAR
( 79)  serflags:CHAR
( 80)  status:INT
(----) ENDOBJECT      /* SIZEOF=82 */
```

```
(----) OBJECT termarray
( 0)  ta0:LONG
( 4)  ta1:LONG
(----) ENDOBJECT      /* SIZEOF=8 */
```

```
CONST SERF_7WIRE=4,
      SERB_7WIRE=2,
      SERERR_PARITYERR=9,
      IOSTF_XOFFWRITE=8,
```

```

IOSTB_XOFFWRITE=3,
IOSTF_OVERRUN=1,
IOSTB_OVERRUN=0,
SERERR_TIMERERR=11,
SERF_XDISABLED=$80,
SERB_XDISABLED=7,
SERERR_INVPARAM=5,
SEXTF_MARK=1,
SEXTB_MARK=0,
SERF_QUEUEDBRK=8,
SERB_QUEUEDBRK=3,
SER_DEVFINISH=11,
SERERR_LINEERR=6,
SDCMD_QUERY=9,
SEXTF_MSPON=2,
SEXTB_MSPON=1,
SERF_SHARED=$20,
SERB_SHARED=5,
SERERR_BUFOVERFLOW=12,
SERF_PARTY_ODD=2,
SERB_PARTY_ODD=1,
SERF_RAD_BOOGIE=16,
SERB_RAD_BOOGIE=4,
SERERR_DEVBUSY=1,
SERF_EOFMODE=$40,
SERB_EOFMODE=6,
SERF_PARTY_ON=1,
SERB_PARTY_ON=0,
SDCMD_SETPARAMS=11,
SERERR_BAUDMISMATCH=2,
SERERR_NODSR=13,
IOSTF_XOFFREAD=16,
IOSTB_XOFFREAD=4,
SERERR_BUFERR=4,
SERERR_DETECTEDBREAK=15,
IOSTF_WROTEBREAK=2,
IOSTB_WROTEBREAK=1,
IOSTF_READBREAK=4,
IOSTB_READBREAK=2,
SDCMD_BREAK=10,
SER_DEFAULT_CTLCHAR=$11130000

```

```
#define SERIALNAME/0
```

1.45 timer.m

```

(----) OBJECT timerequest
( 0)   io:io (or ARRAY OF io)
( 32)  time:timeval (or ARRAY OF timeval)
(----) ENDOBJECT      /* SIZEOF=40 */

(----) OBJECT eclockval
( 0)   hi:LONG
( 4)   lo:LONG
(----) ENDOBJECT      /* SIZEOF=8 */

```

```
(----) OBJECT timeval
(  0)  secs:LONG
(  4)  micro:LONG
(----) ENDOBJECT      /* SIZEOF=8 */

CONST UNIT_MICROHZ=0,
      TR_SETSYSTIME=11,
      TR_GETSYSTIME=10,
      UNIT_WAITECLOCK=4,
      UNIT_ECLOCK=2,
      UNIT_VBLANK=1,
      TR_ADDREQUEST=9,
      UNIT_WAITUNTIL=3

#define TIMERNAME/0
```

1.46 trackdisk.m

```
(----) OBJECT publicunit
(  0)  unit:unit (or ARRAY OF unit)
( 38)  comp0ltrack:INT
( 40)  compl0track:INT
( 42)  compl1track:INT
( 44)  stepdelay:LONG
( 48)  settledelay:LONG
( 52)  retrycnt:CHAR
( 53)  pubflags:CHAR
( 54)  currtrk:INT
( 56)  calibratedelay:LONG
( 60)  counter:LONG
(----) ENDOBJECT      /* SIZEOF=64 */

(----) OBJECT drivegeometry
(  0)  sectorsize:LONG
(  4)  totalsectors:LONG
(  8)  cylinders:LONG
( 12)  cylsectors:LONG
( 16)  heads:LONG
( 20)  tracksectors:LONG
( 24)  bufmemtype:LONG
( 28)  devicetype:CHAR
( 29)  flags:CHAR
( 30)  reserved:INT
(----) ENDOBJECT      /* SIZEOF=32 */

(----) OBJECT ioexttd
(  0)  iostd:iostd (or ARRAY OF iostd)
( 48)  count:LONG
( 52)  seclabel:LONG
(----) ENDOBJECT      /* SIZEOF=56 */

CONST DG_SCANNER=6,
      TDERR_BADDRIVETYPE=$21,
      TD_GETDRIVETYPE=18,
```

```
TD_REMOVE=12,
TDF_EXTCOM=$8000,
ETD_RAWWRITE=$8011,
ETD_WRITE=$8003,
TD_RAWWRITE=17,
TD_CHANGENUM=13,
DG_PROCESSOR=3,
TDERR_BADSECHDR=27,
TDERR_NOSECHDR=21,
ETD_FORMAT=$800B,
TD_FORMAT=11,
TD_PROTSTATUS=15,
DRIVE3_5=1,
TDERR_NOMEM=31,
TDERR_BADSECID=23,
ETD_UPDATE=$8004,
TD_CHANGESTATE=14,
IOTDF_WORDSYNC=$20,
IOTDB_WORDSYNC=5,
IOTDF_INDEXSYNC=16,
IOTDB_INDEXSYNC=4,
DG_CDROM=5,
TD_EJECT=23,
TD_SECTOR=$200,
TDERR_BADHDRSUM=24,
TDPF_NOCLICK=1,
TDPB_NOCLICK=0,
DGF_REMOVABLE=1,
DGB_REMOVABLE=0,
DG_COMMUNICATION=9,
ETD_CLEAR=$8005,
TDERR_POSTRESET=$23,
TDERR_TOOFEWSECS=26,
NUMSECS=11,
TDERR_SEEKERROR=30,
NUMUNITS=4,
ETD_SEEK=$800A,
TD_SEEK=10,
TD_GETNUMTRACKS=19,
TD_SECSHIFT=9,
DG_UNKNOWN=31,
TDERR_NOTSPECIFIED=20,
TD_GETGEOMETRY=22,
DG_SEQUENTIAL_ACCESS=1,
DG_DIRECT_ACCESS=0,
TDERR_WRITEPROT=28,
TD_LASTCOMM=24,
ETD_MOTOR=$8009,
TD_MOTOR=9,
TDERR_BADUNITNUM=$20,
TDF_ALLOW_NON_3_5=1,
TDB_ALLOW_NON_3_5=0,
DG_PRINTER=2,
TDERR_BADSECPREAMBLE=22,
TD_REMCHANGEINT=21,
TD_ADDCHANGEINT=20,
TDERR_BADSECSUM=25,
```

```

ETD_RAWREAD=$8010,
ETD_READ=$8002,
TD_RAWREAD=16,
DG_OPTICAL_DISK=7,
TDERR_DISKCHANGED=29,
DG_WORM=4,
DRIVE3_5_150RPM=3,
TDERR_DRIVEINUSE=$22,
DG_MEDIUM_CHANGER=8,
DRIVE5_25=2,
TD_LABELSIZE=16

```

```
#define TD_NAME/0
```

1.47 diskfont

```

diskfont.m          diskfonttag.m
glyph.m            oerrors.m

```

1.48 diskfont.m

```

(----) OBJECT afh
(  0)  numentries:INT
(----) ENDOBJECT      /* SIZEOF=2 */

(----) OBJECT taf
(  0)  type:INT
(  2)  attr:tttextattr (or ARRAY OF tttextattr)
(----) ENDOBJECT      /* SIZEOF=14 */

(----) OBJECT af
(  0)  type:INT
(  2)  attr:textattr (or ARRAY OF textattr)
(----) ENDOBJECT      /* SIZEOF=10 */

(----) OBJECT diskfonthead
(  0)  df:ln (or ARRAY OF ln)
( 14)  fileid:INT
( 16)  revision:INT
( 18)  segment:LONG
( 22)  name[32]:ARRAY OF CHAR
( 54)  tf:textfont (or ARRAY OF textfont)
(----) ENDOBJECT      /* SIZEOF=106 */

(----) OBJECT fch
(  0)  fileid:INT
(  2)  numentries:INT
(----) ENDOBJECT      /* SIZEOF=4 */

(----) OBJECT tfc
(  0)  filename[254]:ARRAY OF CHAR
( 254) tagcount:INT

```

```

( 256)    ysize:INT
( 258)    style:CHAR
( 259)    flags:CHAR
(----) ENDOBJECT      /* SIZEOF=260 */

(----) OBJECT fc
(   0)    filename[256]:ARRAY OF CHAR
( 256)    ysize:INT
( 258)    style:CHAR
( 259)    flags:CHAR
(----) ENDOBJECT      /* SIZEOF=260 */

CONST DFH_ID=$F80,
      OFCH_ID=$F03,
      TFCH_ID=$F02,
      FCH_ID=$F00,
      AFF_TTATTR=$10000,
      MAXFONTPATH=$100,
      AFF_TAGGED=$10000,
      AFB_TAGGED=16,
      DFH_TAGLIST=18,
      AFF_SCALED=4,
      AFB_SCALED=2,
      AFF_MEMORY=1,
      AFB_MEMORY=0,
      AFF_DISK=2,
      AFB_DISK=1,
      AFF_BITMAP=8,
      AFB_BITMAP=3,
      MAXFONTNAME=$20

```

1.49 diskfonttag.m

```

CONST OT_INDIRECT=$8000,
      OT_SPEC1=$80001101,
      OTS_MEDIUM=$88,
      OT_ISFIXED=$80002013,
      OTS_LEFTITALIC=2,
      OTS_ITALIC=1,
      OTH_NORMAL=$90,
      OTS_EXTRABOLD=$C8,
      OTS_BOLD=$B8,
      OTS_DEMIBOLD=$A8,
      OTS_SEMIBOLD=$98,
      OT_GLYPHCODE=$80000011,
      OT_LEVEL0=$80000000,
      OUTL_DOUBLEBROKEN=4,
      OTUL_BROKEN=2,
      OT_LEVEL1=$80001000,
      OT_LEVEL2=$80002000,
      OT_LEVEL3=$80003000,
      OTH_EXTRAEXPANDED=$F0,
      OTH_EXPANDED=$D0,
      OTH_SEMIEXPANDED=$B0,
      OTUL_DOUBLESOLID=3,

```

```
OTUL_SOLID=1,
OT_SHEARCOS=$8000000B,
OT_FAMILY=$80009003,
OT_SPACEFACTOR=$80002018,
OT_YSIZEFACTOR=$80001011,
OT_SETFACTOR=$80000009,
OTS_BOOK=$78,
OTH_CONDENSED=$70,
OT_SHEARSIN=$8000000A,
OT_STRIKETHROUGH=$80000025,
OT_FILEIDENT=$80001001,
OT_ENGINE=$80009002,
OT_EMBOLDENX=$8000000E,
OT_UNDERLINED=$80000024,
OT_EMBOLDENY=$8000000F,
OTH_COMPRESSED=$50,
OTH_EXTRACOMPRESSED=$30,
OTH_ULTRACOMPRESSED=16,
OT_INHIBITALGOSTYLE=$80002019,
OT_HORIZSTYLE=$80001017,
OT_SLANTSTYLE=$80001016,
OT_ROTATECOS=$8000000D,
OT_MAXAVAILSIZES=20,
OT_AVAILSIZES=$80009020,
OT_SERIFFLAG=$80001014,
OT_GLYPHCODE2=$80000012,
OT_OTAGPATH=$80008014,
OT_WIDTHLIST=$80008021,
OT_OTAGLIST=$80008015,
OT_GLYPHMAP=$80008020,
OTUL_NONE=0,
OTS_ULTRABLACK=$F8,
OTS_EXTRABLACK=$E8,
OTS_BLACK=$D8,
OT_ROTATESIN=$8000000C,
OT_SYMBOLSET=$80001010,
OTS_UPRIGHT=0,
OTS_SEMILIGHT=$68,
OTS_DEMILIGHT=$58,
OTS_LIGHT=$48,
OTS_EXTRALIGHT=$38,
OT_STEMWEIGHT=$80001015,
OT_POINTHEIGHT=$80000008,
OT_DESIGNKERNPAIR=$80008023,
OT_TEXTKERNPAIR=$80008022,
OT_SPECCOUNT=$80001100,
OT_SPEC=$80001100,
OTS_THIN=$28,
OTS_EXTRATHIN=24,
OTS_ULTRATHIN=8,
OT_SPACEWIDTH=$80002012,
OT_GLYPHWIDTH=$80000013,
OT_POINTSIZE=$80000010,
OT_DOTSIZE=$80000002,
OT_DEVICEDPI=$80000001,
OT_BINAME=$8000A007,
OT_INAME=$8000A006,
```

```
OT_BNAME=$8000A005
```

```
#define OTSUFFIX/0
```

```
#define OTE_BULLET/0
```

1.50 glyph.m

```
(----) OBJECT glyphwidthentry
( 0) node:mln (or ARRAY OF mln)
( 8) code:INT
(10) width:LONG
(----) ENDOBJECT /* SIZEOF=14 */

(----) OBJECT glyphmap
( 0) bmmodulo:INT
( 2) bmrows:INT
( 4) blackleft:INT
( 6) blacktop:INT
( 8) blackwidth:INT
(10) blackheight:INT
(12) xorigin:LONG
(16) yorigin:LONG
(20) x0:INT
(22) y0:INT
(24) x1:INT
(26) y1:INT
(28) width:LONG
(32) bitmap:PTR TO CHAR
(----) ENDOBJECT /* SIZEOF=36 */

(----) OBJECT glyphengine
( 0) library:PTR TO lib
( 4) name:LONG
(----) ENDOBJECT /* SIZEOF=8 */

CONST DISKFONT_GLYPH_I=1
```

1.51 oterrors.m

```
CONST OTERR_FAILURE=-1,
      OTERR_BADDATA=3,
      OTERR_NOROTATE=10,
      OTERR_NOSHEAR=9,
      OTERR_UNKNOWNTAG=2,
      OTERR_TOOSMALL=11,
      OTERR_SUCCESS=0,
      OTERR_UNKNOWNGLYPH=12,
      OTERR_BADGLYPH=8,
      OTERR_NOGLYPH=7,
      OTERR_BADFACE=6,
      OTERR_NOFACE=5,
      OTERR_BADTAG=1,
```

```
OTERR_NOMEMORY=4
```

1.52 dos

datetime.m	dos.m
dosasl.m	dosexterns.m
doshunks.m	dostags.m
dos_lib.m	exall.m
filehandler.m	notify.m
rdargs.m	record.m
stdio.m	var.m

1.53 datetime.m

```
(----) OBJECT datetime
(  0)  stamp:datestamp (or ARRAY OF datestamp)
( 12)  format:CHAR
( 13)  flags:CHAR
( 14)  strday:PTR TO CHAR
( 18)  strdate:PTR TO CHAR
( 22)  strtime:PTR TO CHAR
(----) ENDOBJECT      /* SIZEOF=26 */
```

```
CONST FORMAT_INT=1,
      FORMAT_DOS=0,
      FORMAT_USA=2,
      DTF_FUTURE=2,
      DTB_FUTURE=1,
      FORMAT_CDN=3,
      LEN_DATSTRING=16,
      DTF_SUBST=1,
      DTB_SUBST=0,
      FORMAT_MAX=3
```

1.54 dos.m

```
(----) OBJECT infodata
(  0)  numsofterrors:LONG
(  4)  unitnumber:LONG
(  8)  diskstate:LONG
( 12)  numblocks:LONG
( 16)  numblocksused:LONG
( 20)  bytesperblock:LONG
( 24)  disktype:LONG
( 28)  volumenode:LONG
( 32)  inuse:LONG
(----) ENDOBJECT      /* SIZEOF=36 */
```

```
(----) OBJECT fileinfoblock
(  0)  diskkey:LONG
```

```
( 4)   direntrytype:LONG
( 8)   filename[108]:ARRAY OF CHAR
( 116) protection:LONG
( 120) entrytype:LONG
( 124) size:LONG
( 128) numblocks:LONG
( 132) datestamp:datestamp (or ARRAY OF datestamp)
( 144) comment[80]:ARRAY OF CHAR
( 224) owneruid:INT
( 226) ownergid:INT
( 228) reserved[32]:ARRAY OF CHAR
(----) ENDOBJECT      /* SIZEOF=260 */
```

```
(----) OBJECT datestamp
( 0)   days:LONG
( 4)   minute:LONG
( 8)   tick:LONG
(----) ENDOBJECT      /* SIZEOF=12 */
```

```
CONST ERROR_KEY_NEEDS_ARG=$75,
      ERROR_NO_DEFAULT_DIR=$C9,
      ERROR_NO_MORE_ENTRIES=$E8,
      ERROR_OBJECT_WRONG_TYPE=$D4,
      LOCK_SAME=0,
      ID_NO_DISK_PRESENT=-1,
      ITEM_QUOTED=2,
      ITEM_UNQUOTED=1,
      FIBF_EXECUTE=2,
      FIBF_GRP_EXECUTE=$200,
      FIBF_OTR_EXECUTE=$2000,
      FIBB_EXECUTE=1,
      FIBB_GRP_EXECUTE=9,
      FIBB_OTR_EXECUTE=13,
      LOCK_SAME_HANDLER=1,
      FIBF_WRITE=4,
      FIBF_GRP_WRITE=$400,
      FIBF_OTR_WRITE=$4000,
      FIBB_WRITE=2,
      FIBB_GRP_WRITE=10,
      FIBB_OTR_WRITE=14,
      ACCESS_WRITE=-1,
      MODE_READWRITE=$3EC,
      ERROR_UNMATCHED_QUOTES=$77,
      ERROR_TOO_MANY_LEVELS=$D9,
      RETURN_OK=0,
      ERROR_OBJECT_EXISTS=$CB,
      CHANGE_LOCK=0,
      ERROR_INVALID_LOCK=$D3,
      EXCLUSIVE_LOCK=-1,
      SHARED_LOCK=-2,
      RETURN_FAIL=20,
      ID_VALIDATING=$51,
      ID_NOT_REALLY_DOS=$4E444F53,
      DOS_EXALLCONTROL=1,
      ERROR_FILE_NOT_OBJECT=$79,
      ERROR_INVALID_RESIDENT_LIBRARY=$7A,
      OFFSET_END=1,
```

```
RETURN_WARN=5,
ERROR_OBJECT_IN_USE=$CA,
ERROR_LOCK_TIMEOUT=$F2,
DOS_FIB=2,
LINK_SOFT=1,
LOCK_SAME_VOLUME=1,
ERROR_BAD_NUMBER=$73,
ITEM_ERROR=-1,
RETURN_ERROR=10,
ERROR_UNLOCK_ERROR=$F3,
ERROR_SEEK_ERROR=$DB,
ERROR_BAD_HUNK=$EB,
BITSPERBYTE=8,
ERROR_DISK_FULL=$DD,
ERROR_TASK_TABLE_FULL=$69,
ERROR_COMMENT_TOO_BIG=$DC,
DOS_FILEHANDLE=0,
CHANGE_FH=1,
ERROR_ACTION_NOT_KNOWN=$D1,
DOS_STDPKT=3,
ERROR_OBJECT_TOO_LARGE=$CF,
ERROR_DIRECTORY_NOT_EMPTY=$D8,
ERROR_RENAME_ACROSS_DEVICES=$D7,
ERROR_NO_FREE_STORE=$67,
LOCK_DIFFERENT=-1,
OFFSET_CURRENT=0,
ERROR_NOT_IMPLEMENTED=$EC,
ERROR_DEVICE_NOT_MOUNTED=$DA,
FIBF_PURE=$20,
FIBB_PURE=5,
DOS_RDARGS=5,
ERROR_TOO_MANY_ARGS=$76,
TICKS_PER_SECOND=$32,
LINK_HARD=0,
ERROR_READ_PROTECTED=$E0,
ERROR_WRITE_PROTECTED=$DF,
ERROR_DELETE_PROTECTED=$DE,
ERROR_DISK_WRITE_PROTECTED=$D6,
ID_WRITE_PROTECTED=$50,
FIBF_ARCHIVE=16,
FIBB_ARCHIVE=4,
ERROR_OBJECT_LINKED=$EA,
ERROR_OBJECT_NOT_FOUND=$CD,
ERROR_DIR_NOT_FOUND=$CC,
FIBF_DELETE=1,
FIBF_GRP_DELETE=$100,
FIBF_OTR_DELETE=$1000,
FIBB_DELETE=0,
FIBB_GRP_DELETE=8,
FIBB_OTR_DELETE=12,
DOS_CLI=4,
OFFSET_BEGINING=-1,
OFFSET_BEGINNING=-1,
ERROR_RECORD_NOT_LOCKED=$F0,
FIBF_READ=8,
FIBF_GRP_READ=$800,
FIBF_OTR_READ=$8000,
```

```

FIBB_READ=3,
FIBB_GRP_READ=11,
FIBB_OTR_READ=15,
ACCESS_READ=-2,
ERROR_LINE_TOO_LONG=$78,
BITSPERLONG=$20,
BYTESPERLONG=4,
ITEM_EQUAL=-2,
DOSFALSE=0,
ERROR_REQUIRED_ARG_MISSING=$74,
MININT=$80000000,
FIBF_SCRIPT=$40,
FIBB_SCRIPT=6,
ERROR_NO_DISK=$E2,
ERROR_NOT_A_DOS_DISK=$E1,
ID_MSDOS_DISK=$4D534400,
ID_KICKSTART_DISK=$4B49434B,
ID_FASTDIR_FFS_DISK=$444F5305,
ID_FASTDIR_DOS_DISK=$444F5304,
ID_INTER_FFS_DISK=$444F5303,
ID_INTER_DOS_DISK=$444F5302,
ID_FFS_DISK=$444F5301,
ID_DOS_DISK=$444F5300,
ID_UNREADABLE_DISK=$42414400,
ERROR_DISK_NOT_VALIDATED=$D5,
ID_VALIDATED=$52,
ITEM_NOTHING=0,
ERROR_BAD_TEMPLATE=$72,
DOSTRUE=-1,
MODE_NEWFILE=$3EE,
MODE_OLDFILE=$3ED,
SIGBREAKB_CTRL_C=12,
SIGBREAKF_CTRL_C=$1000,
SIGBREAKB_CTRL_D=13,
SIGBREAKF_CTRL_D=$2000,
SIGBREAKB_CTRL_E=14,
SIGBREAKF_CTRL_E=$4000,
SIGBREAKB_CTRL_F=15,
SIGBREAKF_CTRL_F=$8000,
FAULT_MAX=$52,
ERROR_LOCK_COLLISION=$F1,
MAXINT=$7FFFFFFF,
ERROR_IS_SOFT_LINK=$E9,
ERROR_INVALID_COMPONENT_NAME=$D2,
ERROR_BAD_STREAM_NAME=$CE

```

```

#define MKBADDR/1
#define BADDR/1
#define DOSNAME/0

```

1.55 dosasl.m

```

(----) OBJECT achain
( 0)   child:PTR TO achain
( 4)   parent:PTR TO achain

```

```

( 8)    lock:LONG
( 12)   info:fileinfoblock (or ARRAY OF fileinfoblock)
( 272)  flags:CHAR
(----) ENDOBJECT      /* SIZEOF=274 */

(----) OBJECT anchorpath
( 0)    base:PTR TO achain
( 4)    last:PTR TO achain
( 8)    breakbits:LONG
( 12)   foundbreak:LONG
( 16)   flags:CHAR
( 17)   reserved:CHAR
( 18)   strlen:INT
( 20)   info:fileinfoblock (or ARRAY OF fileinfoblock)
(----) ENDOBJECT      /* SIZEOF=280 */

```

```

CONST APF_DODIR=4,
      APB_DODIR=2,
      APF_DIDDIR=8,
      APB_DIDDIR=3,
      APF_NOMEMERR=16,
      APB_NOMEMERR=4,
      P_ORSTART=$82,
      DDF_PATTERNBIT=1,
      DDB_PATTERNBIT=0,
      P_SINGLE=$81,
      DDF_SINGLE=16,
      DDB_SINGLE=4,
      APF_DODOT=$20,
      APB_DODOT=5,
      P_STOP=$8B,
      APF_ITSWILD=2,
      APB_ITSWILD=1,
      APF_DOWILD=1,
      APB_DOWILD=0,
      DDF_ALLBIT=8,
      DDB_ALLBIT=3,
      ERROR_NOT_EXECUTABLE=$131,
      P_NOTEND=$86,
      ERROR_BUFFER_OVERFLOW=$12F,
      DDF_COMPLETED=4,
      DDB_COMPLETED=2,
      P_OREND=$84,
      P_ANY=$80,
      EXAMINE_BIT=2,
      COMPLEX_BIT=1,
      P_REPBEG=$89,
      DDF_EXAMINEDBIT=2,
      DDB_EXAMINEDBIT=1,
      P_REPEND=$8A,
      APF_FOLLOWHLINKS=$80,
      APB_FOLLOWHLINKS=7,
      ERROR_BREAK=$130,
      APF_DIRCHANGED=$40,
      APB_DIRCHANGED=6,
      P_CLASS=$88,
      P_NOTCLASS=$87,

```

```
P_ORNEXT=$83,
P_NOT=$85
```

1.56 dosextens.m

```
(----) OBJECT filelock
( 0) link:LONG
( 4) key:LONG
( 8) access:LONG
(12) task:PTR TO mp
(16) volume:LONG
(----) ENDOBJECT /* SIZEOF=20 */

(----) OBJECT devproc
( 0) port:PTR TO mp
( 4) lock:LONG
( 8) flags:LONG
(12) devnode:PTR TO doslist
(----) ENDOBJECT /* SIZEOF=16 */

(----) OBJECT assignlist
( 0) next:PTR TO assignlist
( 4) lock:LONG
(----) ENDOBJECT /* SIZEOF=8 */

(----) OBJECT doslist
( 0) next:LONG
( 4) type:LONG
( 8) task:PTR TO mp
(12) lock:LONG
(16) volumedate:datestamp (or ARRAY OF datestamp)
(16) handler:PTR TO CHAR
(16) assignname:PTR TO CHAR
(20) stacksize:LONG
(20) list:PTR TO assignlist
(24) priority:LONG
(28) locklist:LONG
(28) startup:LONG
(32) disktype:LONG
(32) seglist:LONG
(36) globvec:LONG
(40) name:PTR TO CHAR
(----) ENDOBJECT /* SIZEOF=44 */

(----) OBJECT devinfo
( 0) next:LONG
( 4) type:LONG
( 8) task:LONG
(12) lock:LONG
(16) handler:PTR TO CHAR
(20) stacksize:LONG
(24) priority:LONG
(28) startup:LONG
(32) seglist:LONG
(36) globvec:LONG
```

```
( 40)  name:PTR TO CHAR
(----) ENDOBJECT      /* SIZEOF=44 */

(----) OBJECT devlist
(  0)  next:LONG
(  4)  type:LONG
(  8)  task:PTR TO mp
( 12)  lock:LONG
( 16)  volumedate:datestamp (or ARRAY OF datestamp)
( 28)  locklist:LONG
( 32)  disktype:LONG
( 36)  unused:LONG
( 40)  name:PTR TO CHAR
(----) ENDOBJECT      /* SIZEOF=44 */

(----) OBJECT commandlineinterface
(  0)  result2:LONG
(  4)  setname:PTR TO CHAR
(  8)  commanddir:LONG
( 12)  returncode:LONG
( 16)  commandname:PTR TO CHAR
( 20)  faillevel:LONG
( 24)  prompt:PTR TO CHAR
( 28)  standardinput:LONG
( 32)  currentinput:LONG
( 36)  commandfile:PTR TO CHAR
( 40)  interactive:LONG
( 44)  background:LONG
( 48)  currentoutput:LONG
( 52)  defaultstack:LONG
( 56)  standardoutput:LONG
( 60)  module:LONG
(----) ENDOBJECT      /* SIZEOF=64 */

(----) OBJECT segment
(  0)  next:LONG
(  4)  uc:LONG
(  8)  seg:LONG
( 12)  name[4]:ARRAY OF CHAR
(----) ENDOBJECT      /* SIZEOF=16 */

(----) OBJECT dosinfo
(  0)  mcname:LONG
(  4)  devinfo:LONG
(  8)  devices:LONG
( 12)  handlers:LONG
( 16)  nethand:LONG
( 20)  devlock:ss (or ARRAY OF ss)
( 66)  entrylock:ss (or ARRAY OF ss)
(112)  deletelock:ss (or ARRAY OF ss)
(----) ENDOBJECT      /* SIZEOF=158 */

(----) OBJECT cliproclist
(  0)  node:mln (or ARRAY OF mln)
(  8)  first:LONG
( 12)  array:PTR TO LONG
(----) ENDOBJECT      /* SIZEOF=16 */
```

```
(----) OBJECT rootnode
(  0)  taskarray:LONG
(  4)  consolesegment:LONG
(  8)  time:datestamp (or ARRAY OF datestamp)
( 20)  restartseg:LONG
( 24)  info:LONG
( 28)  filehandlersegment:LONG
( 32)  clilist:mlh (or ARRAY OF mlh)
( 44)  bootproc:PTR TO mp
( 48)  shellsegment:LONG
( 52)  flags:LONG
(----) ENDOBJECT      /* SIZEOF=56 */
```

```
(----) OBJECT doslibrary
(  0)  lib:lib (or ARRAY OF lib)
( 34)  root:PTR TO rootnode
( 38)  gv:LONG
( 42)  a2:LONG
( 46)  a5:LONG
( 50)  a6:LONG
( 54)  errors:PTR TO errorstring
( 58)  timereq:PTR TO timerequest
( 62)  utilitybase:PTR TO lib
( 66)  intuitionbase:PTR TO lib
(----) ENDOBJECT      /* SIZEOF=70 */
```

```
(----) OBJECT errorstring
(  0)  nums:PTR TO LONG
(  4)  strings:PTR TO CHAR
(----) ENDOBJECT      /* SIZEOF=8 */
```

```
(----) OBJECT standardpacket
(  0)  msg:mn (or ARRAY OF mn)
( 20)  pkt:dospacket (or ARRAY OF dospacket)
(----) ENDOBJECT      /* SIZEOF=68 */
```

```
(----) OBJECT dospacket
(  0)  link:PTR TO mn
(  4)  port:PTR TO mp
(  8)  action:LONG
(  8)  type:LONG
( 12)  status:LONG
( 12)  res1:LONG
( 16)  status2:LONG
( 16)  res2:LONG
( 20)  bufaddr:LONG
( 20)  arg1:LONG
( 24)  arg2:LONG
( 28)  arg3:LONG
( 32)  arg4:LONG
( 36)  arg5:LONG
( 40)  arg6:LONG
( 44)  arg7:LONG
(----) ENDOBJECT      /* SIZEOF=48 */
```

```
(----) OBJECT filehandle
```

```

(  0)  link:PTR TO mn
(  4)  interactive:PTR TO mp
(  8)  type:PTR TO mp
( 12)  buf:LONG
( 16)  pos:LONG
( 20)  end:LONG
( 24)  funcs:LONG
( 28)  func2:LONG
( 32)  func3:LONG
( 36)  args:LONG
( 40)  arg2:LONG
(----) ENDOBJECT      /* SIZEOF=44 */

(----) OBJECT process
(  0)  task:tc (or ARRAY OF tc)
( 92)  msgport:mp (or ARRAY OF mp)
(126)  pad:INT
(128)  seglist:LONG
(132)  stacksize:LONG
(136)  globvec:LONG
(140)  tasknum:LONG
(144)  stackbase:LONG
(148)  result2:LONG
(152)  currentdir:LONG
(156)  cis:LONG
(160)  cos:LONG
(164)  consoletask:LONG
(168)  filesystemtask:LONG
(172)  cli:LONG
(176)  returnaddr:LONG
(180)  pktwait:LONG
(184)  windowptr:LONG
(188)  homedir:LONG
(192)  flags:LONG
(196)  exitcode:LONG
(200)  exitdata:LONG
(204)  arguments:PTR TO CHAR
(208)  localvars:mlh (or ARRAY OF mlh)
(220)  shellprivate:LONG
(224)  ces:LONG
(----) ENDOBJECT      /* SIZEOF=228 */

CONST ACTION_CREATE_DIR=22,
      ACTION_COPY_DIR=19,
      ACTION_DISK_TYPE=$20,
      DLT_PRIVATE=-1,
      RUN_EXECUTE=-1,
      ACTION_FINDINPUT=$3ED,
      PRF_CLOSEINPUT=8,
      PRB_CLOSEINPUT=3,
      LDF_WRITE=2,
      LDB_WRITE=1,
      ACTION_WRITE=$57,
      ACTION_FLUSH=27,
      ACTION_PARENT_FH=$407,
      REPORT_TASK=1,
      ACTION_FORMAT=$3FC,

```

```
CMD_DISABLED=$FFFFFFC19,
ACTION_FINDUPDATE=$3EC,
ACTION_SET_DATE=$22,
ACTION_FREE_RECORD=$7D9,
ACTION_LOCK_RECORD=$7D8,
REPORT_LOCK=2,
DVPF_UNLOCK=1,
DVPB_UNLOCK=0,
ACTION_FH_FROM_LOCK=$402,
ACTION_SAME_LOCK=$28,
ACTION_FREE_LOCK=15,
ACTION_GET_BLOCK=2,
PRF_FREECLI=4,
PRB_FREECLI=2,
ST_USERDIR=2,
PRF_FREECURRDIR=2,
PRB_FREECURRDIR=1,
DLT_NONBINDING=4,
ACTION_EVENT=6,
ACTION_EXAMINE_OBJECT=23,
ACTION_RENAME_OBJECT=17,
ACTION_DELETE_OBJECT=16,
ACTION_LOCATE_OBJECT=8,
ACTION_COPY_DIR_FH=$406,
ACTION_EXAMINE_ALL_END=$40B,
ACTION_END=$3EF,
CMD_INTERNAL=-2,
ACTION_TIMER=30,
ACTION_DISK_CHANGE=$21,
RUN_SYSTEM_ASYNC=-3,
LDF_ALL=28,
ACTION_EXAMINE_ALL=$409,
ACTION_WRITE_RETURN=$3EA,
ACTION_READ_RETURN=$3E9,
ACTION_CHANGE_SIGNAL=$3E3,
REPORT_VOLUME=3,
DLT_VOLUME=2,
ACTION_CURRENT_VOLUME=7,
ST_ROOT=1,
DLT_DEVICE=0,
RNF_WILDSTAR=$1000000,
RNB_WILDSTAR=24,
ABORT_DISK_ERROR=$128,
ACTION_MORE_CACHE=18,
ACTION_SEEK=$3F0,
ACTION_FINDOUTPUT=$3EE,
PRF_CLOSEOUTPUT=16,
PRB_CLOSEOUTPUT=4,
DVPF_ASSIGN=2,
DVPB_ASSIGN=1,
ACTION_EXAMINE_FH=$40A,
ACTION_STARTUP=0,
REPORT_INSERT=4,
ACTION_SET_COMMENT=28,
PRF_FREESEGLIST=1,
PRB_FREESEGLIST=0,
ACTION_INFO=26,
```

```

ACTION_DISK_INFO=25,
LDF_DEVICES=4,
LDB_DEVICES=2,
ACTION_PARENT=29,
ABORT_BUSY=$120,
PRF_FREEARGS=$20,
PRB_FREEARGS=5,
ACTION_CHANGE_MODE=$404,
ACTION_SCREEN_MODE=$3E2,
LDF_VOLUMES=8,
LDB_VOLUMES=3,
ACTION_NIL=0,
ACTION_INHIBIT=31,
DLT_DIRECTORY=1,
LDF_ENTRY=$20,
LDB_ENTRY=5,
ACTION_SET_OWNER=$40C,
RUN_SYSTEM=-2,
CMD_SYSTEM=-1,
ACTION_IS_FILESYSTEM=$403,
LDF_DELETE=$40,
LDB_DELETE=6,
LDF_READ=1,
LDB_READ=0,
RNF_PRIVATE1=2,
RNB_PRIVATE1=1,
ACTION_READ=$52,
REPORT_STREAM=0,
ACTION_WRITE_PROTECT=$3FF,
ACTION_SET_PROTECT=21,
ACTION_SERIALIZE_DISK=$1068,
ACTION_RENAME_DISK=9,
ACTION_SET_MAP=4,
DLT_LATE=3,
ACTION_WAIT_CHAR=20,
ST_PIPEFILE=-5,
ST_LINKFILE=-4,
ST_FILE=-3,
LDF_ASSIGNS=16,
LDB_ASSIGNS=4,
ACTION_REMOVE_NOTIFY=$1002,
ACTION_ADD_NOTIFY=$1001,
ACTION_DIE=5,
ACTION_SET_FILE_SIZE=$3FE,
ST_LINKDIR=4,
ACTION_EXAMINE_NEXT=24,
ST_SOFTLINK=3,
ACTION_READ_LINK=$400,
ACTION_MAKE_LINK=$3FD

```

1.57 doshunks.m

```

CONST HUNKF_FAST=$80000000,
EXT_RELREF32=$88,
EXT_ABSREF32=$81,

```

```

EXT_REF32=$81,
EXT_ABSREF8=$8B,
EXT_RELREF8=$84,
EXT_REF8=$84,
HUNK_RELRELOC8=$3EE,
HUNK_RELOC8=$3EE,
EXT_SYMB=0,
HUNK_CODE=$3E9,
EXT_DEXT16=$86,
HUNK_DATA=$3EA,
HUNK_UNIT=$3E7,
HUNK_LIB=$3FA,
EXT_COMMONDEF=4,
HUNK_DREL16=$3F8,
HUNKF_ADVISORY=$20000000,
EXT_DEXT32=$85,
HUNK_INDEX=$3FB,
HUNK_END=$3F2,
HUNK_RELOC32SHORT=$3FC,
HUNK_BSS=$3EB,
HUNK_DREL32=$3F7,
HUNK_EXT=$3EF,
EXT_DEXT8=$87,
HUNKF_CHIP=$40000000,
HUNK_HEADER=$3F3,
HUNK_DREL8=$3F9,
EXT_DEF=1,
EXT_RES=3,
HUNK_BREAK=$3F6,
EXT_ABS=2,
HUNK_ABSRELOC16=$3FE,
HUNK_RELRELOC16=$3ED,
HUNK_RELOC16=$3ED,
EXT_RELCOMMON=$89,
EXT_ABSCOMMON=$82,
EXT_COMMON=$82,
HUNK_DEBUG=$3F1,
EXT_ABSREF16=$8A,
EXT_RELREF16=$83,
EXT_REF16=$83,
HUNK_OVERLAY=$3F5,
HUNK_SYMBOL=$3F0,
HUNK_RELRELOC32=$3FD,
HUNK_ABSRELOC32=$3EC,
HUNK_RELOC32=$3EC,
HUNK_NAME=$3E8

```

1.58 dostags.m

```

CONST ADO_PROMPTLEN=$800007D5,
NP_ARGUMENTS=$800003FD,
NP_CURRENTDIR=$800003F2,
NP_CLOSEINPUT=$800003EE,
NP_INPUT=$800003EC,
SYS_INPUT=$80000021,

```

```

ADO_DUMMY=$800007D0,
NP_DUMMY=$800003E8,
SYS_DUMMY=$80000020,
NP_EXITCODE=$80000400,
NP_CONSOLETASK=$800003F6,
NP_PRIORITY=$800003F5,
NP_EXITDATA=$80000401,
ADO_DIRLEN=$800007D2,
SYS_ASYNC=$80000023,
NP_SYNCHRONOUS=$800003FF,
ADO_COMMFILELEN=$800007D4,
ADO_COMMNAMELEN=$800007D3,
NP_CLOSEERROR=$800003F1,
NP_ERROR=$800003F0,
NP_HOMEDIR=$800003F8,
NP_CLOSEOUTPUT=$800003EF,
NP_OUTPUT=$800003ED,
SYS_OUTPUT=$80000022,
NP_PATH=$800003FB,
NP_FREESEGLIST=$800003EA,
NP_SEGLIST=$800003E9,
NP_NOTIFYONDEATH=$800003FE,
ADO_FH_MODE=$800007D1,
NP_WINDOWPTR=$800003F7,
NP_ENTRY=$800003EB,
NP_CLI=$800003FA,
SYS_CUSTOMSHELL=$80000025,
SYS_USERSHELL=$80000024,
NP_COPYVARS=$800003F9,
NP_STACKSIZE=$800003F3,
NP_COMMANDNAME=$800003FC,
NP_NAME=$800003F4

```

1.59 dos_lib.m

```

CONST RESERVE=4,
      VSIZE=6

```

1.60 exall.m

```

(----) OBJECT exallcontrol
(  0)  entries:LONG
(  4)  lastkey:LONG
(  8)  matchstring:PTR TO CHAR
( 12)  matchfunc:PTR TO hook
(----) ENDOBJECT      /* SIZEOF=16 */

(----) OBJECT exalldata
(  0)  next:PTR TO exalldata
(  4)  name:PTR TO CHAR
(  8)  type:LONG
( 12)  size:LONG

```

```
( 16)    prot:LONG
( 20)    days:LONG
( 24)    mins:LONG
( 28)    ticks:LONG
( 32)    comment:PTR TO CHAR
( 36)    owneruid:INT
( 38)    ownergid:INT
(----) ENDOBJECT      /* SIZEOF=40 */

CONST ED_TYPE=2,
      ED_DATE=5,
      ED_PROTECTION=4,
      ED_COMMENT=6,
      ED_OWNER=7,
      ED_SIZE=3,
      ED_NAME=1
```

1.61 filehandler.m

```
(----) OBJECT devicenode
(  0)    next:PTR TO CHAR
(  4)    type:LONG
(  8)    task:PTR TO mp
( 12)    lock:LONG
( 16)    handler:PTR TO CHAR
( 20)    stacksize:LONG
( 24)    priority:LONG
( 28)    startup:LONG
( 32)    seglist:LONG
( 36)    globalvec:LONG
( 40)    name:PTR TO CHAR
(----) ENDOBJECT      /* SIZEOF=44 */

(----) OBJECT filesysstartupmsg
(  0)    unit:LONG
(  4)    device:PTR TO CHAR
(  8)    environ:LONG
( 12)    flags:LONG
(----) ENDOBJECT      /* SIZEOF=16 */

(----) OBJECT dosenvec
(  0)    tablesize:LONG
(  4)    sizeblock:LONG
(  8)    secorg:LONG
( 12)    surfaces:LONG
( 16)    sectorperblock:LONG
( 20)    blockspetrack:LONG
( 24)    reserved:LONG
( 28)    prealloc:LONG
( 32)    interleave:LONG
( 36)    lowcyl:LONG
( 40)    highcyl:LONG
( 44)    numbuffers:LONG
( 48)    bufmemtype:LONG
( 52)    maxtransfer:LONG
```

```

( 56)    mask:LONG
( 60)    bootpri:LONG
( 64)    dostype:LONG
( 68)    baud:LONG
( 72)    control:LONG
( 76)    bootblocks:LONG
(----) ENDOBJECT      /* SIZEOF=80 */

CONST DE_DOSTYPE=16,
      DE_BUFMEMTYPE=12,
      DE_MEMBUFTYPE=12,
      DE_BLKSPERTRACK=5,
      DE_UPPERCYL=10,
      DE_SIZEBLOCK=1,
      DE_SECORG=2,
      DE_PREFAC=7,
      DE_CONTROL=18,
      DE_BOOTPRI=15,
      DE_MASK=14,
      DE_LOWCYL=9,
      DE_BAUD=17,
      DE_NUMHEADS=3,
      DE_RESERVEDBLKS=6,
      DE_BOOTBLOCKS=19,
      DE_INTERLEAVE=8,
      DE_MAXTRANSFER=13,
      DE_NUMBUFFERS=11,
      DE_SECSPERBLK=4,
      DE_TABLESIZE=0

```

1.62 notify.m

```

(----) OBJECT notifyrequest
(  0)    name:PTR TO CHAR
(  4)    fullname:PTR TO CHAR
(  8)    userdata:LONG
( 12)    flags:LONG
( 16)    task:PTR TO tc
( 16)    port:PTR TO mp
( 20)    signalnum:CHAR
( 21)    pada:CHAR
( 22)    padb[2]:ARRAY OF CHAR
( 24)    reserved[4]:ARRAY OF LONG
( 40)    msgcount:LONG
( 44)    handler:PTR TO mp
(----) ENDOBJECT      /* SIZEOF=48 */

(----) OBJECT notifymessage
(  0)    execmessage:mn (or ARRAY OF mn)
( 20)    class:LONG
( 24)    code:INT
( 26)    nreq:PTR TO notifyrequest
( 30)    donottouch:LONG
( 34)    donottouch2:LONG
(----) ENDOBJECT      /* SIZEOF=38 */

```

```

CONST NRB_WAIT_REPLY=3,
      NRF_WAIT_REPLY=8,
      NOTIFY_CODE=$1234,
      NRB_SEND_SIGNAL=1,
      NRF_SEND_SIGNAL=2,
      NRB_MAGIC=31,
      NRF_MAGIC=$80000000,
      NRB_NOTIFY_INITIAL=4,
      NRF_NOTIFY_INITIAL=16,
      NRB_SEND_MESSAGE=0,
      NRF_SEND_MESSAGE=1,
      NOTIFY_CLASS=$40000000,
      NR_HANDLER_FLAGS=$FFFF0000

```

1.63 rdargs.m

```

(----) OBJECT rdargs
(  0)   source:csource (or ARRAY OF csource)
( 12)   dalist:LONG
( 16)   buffer:PTR TO CHAR
( 20)   bufsiz:LONG
( 24)   exthelp:PTR TO CHAR
( 28)   flags:LONG
(----) ENDOBJECT      /* SIZEOF=32 */

(----) OBJECT csource
(  0)   buffer:PTR TO CHAR
(  4)   length:LONG
(  8)   curchr:LONG
(----) ENDOBJECT      /* SIZEOF=12 */

CONST RDAF_STDIN=1,
      RDAB_STDIN=0,
      RDAF_NOPROMPT=4,
      RDAB_NOPROMPT=2,
      RDAF_NOALLOC=2,
      RDAB_NOALLOC=1,
      MAX_TEMPLATE_ITEMS=$64,
      MAX_MULTIARGS=$80

```

1.64 record.m

```

(----) OBJECT recordlock
(  0)   fh:LONG
(  4)   offset:LONG
(  8)   length:LONG
( 12)   mode:LONG
(----) ENDOBJECT      /* SIZEOF=16 */

CONST REC_SHARED_IMMED=3,
      REC_EXCLUSIVE_IMMED=1,

```

```
REC_SHARED=2,
REC_EXCLUSIVE=0
```

1.65 stdio.m

```
CONST DOS_STDIO_I=1,
      BUF_FULL=1,
      BUF_NONE=2,
      ENDSTREAMCH=-1,
      BUF_LINE=0
```

```
#define WriteStr/1
#define ReadChars/2
#define UnReadChar/1
#define WriteChar/1
#define ReadChar/0
#define ReadLn/2
#define Vwritef/2
```

1.66 var.m

```
(----) OBJECT localvar
( 0) node:ln (or ARRAY OF ln)
( 14) flags:INT
( 16) value:PTR TO CHAR
( 20) len:LONG
(----) ENDOBJECT /* SIZEOF=24 */
```

```
CONST LVF_IGNORE=$80,
      LVB_IGNORE=7,
      LV_ALIAS=1,
      GVF_SAVE_VAR=$1000,
      GVB_SAVE_VAR=12,
      GVF_BINARY_VAR=$400,
      GVB_BINARY_VAR=10,
      LV_VAR=0,
      GVF_LOCAL_ONLY=$200,
      GVB_LOCAL_ONLY=9,
      GVF_GLOBAL_ONLY=$100,
      GVB_GLOBAL_ONLY=8,
      GVF_DONT_NULL_TERM=$800,
      GVB_DONT_NULL_TERM=11
```

1.67 exec

alerts.m	devices.m
errors.m	exebase.m
interrupts.m	io.m
libraries.m	lists.m
memory.m	nodes.m

ports.m	resident.m
semaphores.m	strings.m
tasks.m	types.m

1.68 alerts.m

```
CONST AN_NOISEM=$4000010,  
      AN_OBSOLETEFONT=$2000401,  
      AN_SYSSCRNTYPE=$84000009,  
      AN_GADGETTYPE=$84000001,  
      AN_TMBADSUPPLY=$15000002,  
      AN_CREATEPORT=$84010002,  
      AN_MAKEVPORT=$82010030,  
      AN_BOGUSEXCPT=$8100000A,  
      AN_MISCRSRC=$22000000,  
      AN_DISKRSRC=$21000000,  
      AN_CIARSRRC=$20000000,  
      AO_MISCRSRC=$8022,  
      AO_DISKRSRC=$8021,  
      AO_CIARSRRC=$8020,  
      AN_WBBADSTARTUPMSG1=$31000001,  
      AN_WBBADSTARTUPMSG2=$31000002,  
      ACPU_TRACE=$80000009,  
      AN_MEMORYINSANE=$1000000C,  
      AN_OPENSSCREEN=$84010007,  
      AN_DISKCOPY=$32000000,  
      AN_ENDTASK=$70000002,  
      AO_DISKCOPY=$8032,  
      ACPU_FORMAT=$8000000E,  
      ACPU_TRAPV=$80000007,  
      AN_ASYNC_PKT=$70000004,  
      AN_WEIRDECHO=$8400000E,  
      AN_LAYERSNOMEM=$83010000,  
      AN_GFXNOMEM=$82010000,  
      AN_CONSOLEDEV=$11000000,  
      AN_BADQUICKINT=$810000FF,  
      AO_CONSOLEDEV=$8011,  
      AG_CLOSEDEV=$A0000,  
      AN_TDDELAY=$14000002,  
      AN_BADSTATE=$8400000C,  
      AN_WBBADIOMSG=$31000003,  
      AN_QPKTFAIL=$70000003,  
      AN_INITAPTR=$10000007,  
      AN_PLANEALLOC=$84010005,  
      AN_SUBALLOC=$4010004,  
      AN_ITEMALLOC=$4010003,  
      AN_DISKBLKSEQ=$70000006,  
      AN_STARTMEM=$7010001,  
      AN_BADSEMAPHORE=$1000010,  
      AG_OPENRES=$50000,  
      AN_DISKFONTLIB=$B000000,  
      AO_DISKFONTLIB=$800B,  
      AG_OPENDEV=$40000,  
      AN_KEYRANGE=$700000B,  
      AN_UTILITYLIB=$34000000,
```



```
AO_UTILITYLIB=$800C,  
AN_INTUITION=$4000000,  
AO_INTUITION=$8004,  
AN_ITEMBOXTOP=$84000006,  
AN_OPENSSCRNRAS=$84010008,  
AT_DEADEND=$80000000,  
AG_NOSIGNAL=$70000,  
AN_RAMLIB=$8000000,  
AN_IOAFTERCLOSE=$100000D,  
AO_RAMLIB=$8008,  
AN_SEMCCRUP=$1000008,  
AN_MEMCCRUP=$81000005,  
AN_ADDSWGADGET=$8401000A,  
AN_BADGADGET=$4000001,  
AN_INTRMEM=$81000006,  
ACPU_DIVZERO=$80000005,  
AN_BOOTSTRAP=$30000000,  
AO_BOOTSTRAP=$8030,  
AG_BADPARM=$80000,  
AN_BADCHKSUM=$7000009,  
AN_LIBCHKSUM=$1000003,  
AN_BASECHKSUM=$1000002,  
AN_BADFREEADDR=$100000F,  
ACPU_LINEA=$8000000A,  
AN_BOOTERROR=$30000001,  
AN_DISKERROR=$700000A,  
AN_GFXFREEERROR=$200000D,  
AN_GFXNEWERROR=$200000C,  
AG_IOERROR=$60000,  
ACPU_LINEF=$8000000B,  
ACPU_AUTOVEC1=$80000019,  
ACPU_AUTOVEC2=$8000001A,  
ACPU_AUTOVEC3=$8000001B,  
ACPU_AUTOVEC4=$8000001C,  
AN_BADEXPANSIONFREE=$A000001,  
AN_KEYFREE=$7000008,  
ACPU_AUTOVEC5=$8000001D,  
ACPU_AUTOVEC6=$8000001E,  
ACPU_AUTOVEC7=$8000001F,  
AN_TDCALIBSEEK=$14000001,  
AN_NOCONSOLE=$8400000F,  
ACPU_ADDRESSERR=$80000003,  
ACPU_BUSERR=$80000002,  
AN_NOFONTS=$B1000001,  
AN_UNKNOWN=$35000000,  
AO_UNKNOWN=$8035,  
AN_WBRELAYOUTTOOLMENU=$B1010009,  
AN_STACKPROBE=$100000E,  
AN_BADSEGLIST=$8000001,  
AN_BADINITFUNC=$700000D,  
AG_PROCCREATE=$B0000,  
AN_SHORTFRAME=$82010007,  
AN_LONGFRAME=$82010006,  
AO_KEYMAPLIB=$800D,  
AN_EXCPTVECT=$1000001,  
AN_TRACKDISKDEV=$14000000,  
AO_TRACKDISKDEV=$8014,
```

```
ACPU_CHK=$80000006,  
AN_WORKBENCH=$31000000,  
AO_WORKBENCH=$8031,  
AG_CLOSELIB=$90000,  
AG_MAKELIB=$20000,  
AN_AUDIODEV=$10000000,  
AO_AUDIODEV=$8010,  
AN_TMBADREQ=$15000001,  
AN_KEYBOARDDEV=$13000000,  
AN_GAMEPORTDEV=$12000000,  
AO_KEYBOARDDEV=$8013,  
AO_GAMEPORTDEV=$8012,  
ACPU_PRIVERR=$80000008,  
AN_BADMESSAGE=$8400000D,  
AN_TEXTTMPRAS=$2010009,  
AN_EXPANSIONLIB=$A000000,  
AN_ICONLIB=$9000000,  
AO_EXPANSIONLIB=$800A,  
AO_ICONLIB=$8009,  
AG_OPENLIB=$30000,  
AN_GFXNOLCM=$82011234,  
AT_RECOVERY=0,  
AN_REGIONMEMORY=$8201000B,  
AG_NOMEMORY=$10000,  
AN_FILERECLOSED=$700000E,  
AN_GFXNOMEMMSPC=$82010001,  
AN_IOUSEDTWICE=$100000B,  
AN_FREETWICE=$1000009,  
AN_DRHASDISK=$21000001,  
AN_NOWINDOW=$11000001,  
AN_OPENWINDOW=$8401000B,  
AN_DOSLIB=$7000000,  
AN_LAYERSLIB=$3000000,  
AN_GRAPHICSLIB=$2000000,  
AN_EXECLIB=$1000000,  
AO_DOSLIB=$8007,  
AO_LAYERSLIB=$8003,  
AO_GRAPHICSLIB=$8002,  
AO_EXECLIB=$8001,  
AN_DRINTNOACT=$21000002,  
AN_MATHLIB=$5000000,  
AO_MATHLIB=$8005,  
AN_ISEMORDER=$4000011,  
AN_FREEVEC=$7000005,  
AN_GADTOOLS=$33000000,  
AN_TIMERDEV=$15000000,  
AN_BITMAP=$7000007,  
AN_BLTBITMAP=$8201000A,  
AO_GADTOOLS=$8033,  
AO_TIMERDEV=$8015,  
AN_BADOVERLAY=$700000C,  
ACPU_INSTERR=$80000004,  
ACPU_SPURIOUS=$80000018
```

1.69 devices.m

```
(----) OBJECT unit
(  0)   mp:mp (or ARRAY OF mp)
( 34)   flags:CHAR
( 35)   pad:CHAR
( 36)   opencnt:INT
(----) ENDOBJECT      /* SIZEOF=38 */

(----) OBJECT dd
(  0)   lib:lib (or ARRAY OF lib)
(----) ENDOBJECT      /* SIZEOF=34 */

CONST UNITF_ACTIVE=1,
      UNITF_INTASK=2
```

1.70 errors.m

```
CONST IOERR_BADLENGTH=-4,
      IOERR_SELFTEST=-7,
      IOERR_BADADDRESS=-5,
      IOERR_OPENFAIL=-1,
      IOERR_ABORTED=-2,
      ERR_OPENDEVICE=-1,
      IOERR_UNITBUSY=-6,
      IOERR_NOCMD=-3
```

1.71 execbase.m

```
(----) OBJECT execbase
(  0)   lib:lib (or ARRAY OF lib)
( 34)   softver:INT
( 36)   lowmemchksum:INT
( 38)   chkbases:LONG
( 42)   coldcapture:LONG
( 46)   coolcapture:LONG
( 50)   warmcapture:LONG
( 54)   sysstkupper:LONG
( 58)   sysstklower:LONG
( 62)   maxlocmem:LONG
( 66)   debugentry:LONG
( 70)   debugdata:LONG
( 74)   alertdata:LONG
( 78)   maxextmem:LONG
( 82)   chksum:INT
( 84)   ivtbe:iv (or ARRAY OF iv)
( 96)   ivdskblk:iv (or ARRAY OF iv)
(108)   ivsoftint:iv (or ARRAY OF iv)
(120)   ivports:iv (or ARRAY OF iv)
(132)   ivcoper:iv (or ARRAY OF iv)
(144)   ivvertb:iv (or ARRAY OF iv)
(156)   ivblit:iv (or ARRAY OF iv)
```

```

( 168)   ivaud0:iv (or ARRAY OF iv)
( 180)   ivaud1:iv (or ARRAY OF iv)
( 192)   ivaud2:iv (or ARRAY OF iv)
( 204)   ivaud3:iv (or ARRAY OF iv)
( 216)   ivrbf:iv (or ARRAY OF iv)
( 228)   ivdsksync:iv (or ARRAY OF iv)
( 240)   ivexter:iv (or ARRAY OF iv)
( 252)   ivinten:iv (or ARRAY OF iv)
( 264)   ivnmi:iv (or ARRAY OF iv)
( 276)   thistask:PTR TO tc
( 280)   idlecount:LONG
( 284)   dispcount:LONG
( 288)   quantum:INT
( 290)   elapsed:INT
( 292)   sysflags:INT
( 294)   idnestcnt:CHAR
( 295)   tdnestcnt:CHAR
( 296)   attnflags:INT
( 298)   attnresched:INT
( 300)   resmodules:LONG
( 304)   tasktrapcode:LONG
( 308)   taskexceptcode:LONG
( 312)   taskexitcode:LONG
( 316)   tasksigalloc:LONG
( 320)   tasktrapalloc:INT
( 322)   memlist:lh (or ARRAY OF lh)
( 336)   resourcelist:lh (or ARRAY OF lh)
( 350)   devicelist:lh (or ARRAY OF lh)
( 364)   intrlist:lh (or ARRAY OF lh)
( 378)   liblist:lh (or ARRAY OF lh)
( 392)   portlist:lh (or ARRAY OF lh)
( 406)   taskready:lh (or ARRAY OF lh)
( 420)   taskwait:lh (or ARRAY OF lh)
( 434)   softints:sh (or ARRAY OF sh)
( 514)   lastalert[4]:ARRAY OF LONG
( 530)   vblankfrequency:CHAR
( 531)   powersupplyfrequency:CHAR
( 532)   semaphorelist:lh (or ARRAY OF lh)
( 546)   kickmemptr:LONG
( 550)   kicktagptr:LONG
( 554)   kickchecksum:LONG
( 558)   pad0:INT
( 560)   launchpoint:LONG
( 564)   ramlibprivate:LONG
( 568)   eclockfrequency:LONG
( 572)   cachecontrol:LONG
( 576)   taskid:LONG
( 580)   reserved1[5]:ARRAY OF LONG
( 600)   mmulock:LONG
( 604)   reserved2[3]:ARRAY OF LONG
( 616)   memhandlers:mlh (or ARRAY OF mlh)
( 628)   memhandler:LONG
(----) ENDOBJECT      /* SIZEOF=632 */

```

```

CONST AFF_PRIVATE=$8000,
      AFB_PRIVATE=15,
      CACRF_COPYBACK=$80000000,

```

```

CACRF_ENABLED=$100,
CACRF_ENABLEEE=$40000000,
CACRF_ENABLEI=1,
AFF_FPU40=$40,
AFB_FPU40=6,
CACRF_DBE=$1000,
CACRF_CLEARD=$800,
AFF_68010=1,
AFB_68010=0,
CACRF_IBE=16,
CACRF_CLEARI=8,
DMAF_READFROMRAM=8,
AFF_68020=2,
AFB_68020=1,
AFF_68030=4,
AFB_68030=2,
DMAF_CONTINUE=2,
AFF_68040=8,
AFB_68040=3,
AFF_68881=16,
AFB_68881=4,
AFF_68882=$20,
AFB_68882=5,
CACRF_WRITEALLOCATE=$2000,
CACRF_FREEZED=$200,
CACRF_FREEZEI=2,
DMAF_NOMODIFY=4

```

1.72 interrupts.m

```

(----) OBJECT sh
( 0)   lh:lh (or ARRAY OF lh)
( 14)   pad:INT
(----) ENDOBJECT      /* SIZEOF=16 */

(----) OBJECT iv
( 0)   data:LONG
( 4)   code:LONG
( 8)   node:PTR TO ln
(----) ENDOBJECT      /* SIZEOF=12 */

(----) OBJECT is
( 0)   ln:ln (or ARRAY OF ln)
( 14)   data:LONG
( 18)   code:LONG
(----) ENDOBJECT      /* SIZEOF=22 */

CONST SIH_PRIMASK=$F0,
SF_SAR=$8000,
INTF_NMI=$8000,
INTB_NMI=15,
SIH_QUEUES=5,
SF_SINT=$2000,
SF_TQE=$4000

```

1.73 io.m

```
(----) OBJECT iostd
(  0)  mn:mn (or ARRAY OF mn)
( 20)  device:PTR TO dd
( 24)  unit:PTR TO unit
( 28)  command:INT
( 30)  flags:CHAR
( 31)  error:CHAR
( 32)  actual:LONG
( 36)  length:LONG
( 40)  data:LONG
( 44)  offset:LONG
(----) ENDOBJECT      /* SIZEOF=48 */

(----) OBJECT io
(  0)  mn:mn (or ARRAY OF mn)
( 20)  device:PTR TO dd
( 24)  unit:PTR TO unit
( 28)  command:INT
( 30)  flags:CHAR
( 31)  error:CHAR
(----) ENDOBJECT      /* SIZEOF=32 */

CONST CMD_INVALID=0,
      IOF_QUICK=1,
      IOB_QUICK=0,
      CMD_WRITE=3,
      CMD_FLUSH=8,
      CMD_START=7,
      CMD_UPDATE=4,
      CMD_STOP=6,
      CMD_CLEAR=5,
      CMD_RESET=1,
      CMD_NONSTD=9,
      DEV_ABORTIO=$FFFFFFDC,
      CMD_READ=2,
      DEV_BEGINIO=-30
```

1.74 libraries.m

```
(----) OBJECT lib
(  0)  ln:ln (or ARRAY OF ln)
( 14)  flags:CHAR
( 15)  pad:CHAR
( 16)  negsize:INT
( 18)  possize:INT
( 20)  version:INT
( 22)  revision:INT
( 24)  idstring:PTR TO CHAR
( 28)  sum:LONG
( 32)  opencnt:INT
(----) ENDOBJECT      /* SIZEOF=34 */
```

```

CONST LIBF_DELEXP=8,
      LIB_OPEN=-6,
      LIB_BASE=-6,
      LIBF_SUMUSED=4,
      LIBF_SUMMING=1,
      LIBF_EXP0CNT=16,
      LIB_CLOSE=-12,
      LIB_NONSTD=-30,
      LIB_EXTFUNC=-24,
      LIB_RESERVED=4,
      LIBF_CHANGED=2,
      LIB_USERDEF=-30,
      LIB_VECTSIZE=6,
      LIB_EXPUNGE=-18

```

1.75 lists.m

```

(----) OBJECT mlh
(  0)   head:PTR TO mln
(  4)   tail:PTR TO mln
(  8)   tailpred:PTR TO mln
(----) ENDOBJECT      /* SIZEOF=12 */

(----) OBJECT lh
(  0)   head:PTR TO ln
(  4)   tail:PTR TO ln
(  8)   tailpred:PTR TO ln
( 12)   type:CHAR
( 13)   pad:CHAR
(----) ENDOBJECT      /* SIZEOF=14 */

#define IsMsgPortEmpty/1
#define IsListEmpty/1

```

1.76 memory.m

```

(----) OBJECT mc
(  0)   next:PTR TO mc
(  4)   bytes:LONG
(----) ENDOBJECT      /* SIZEOF=8 */

(----) OBJECT mh
(  0)   ln:ln (or ARRAY OF ln)
( 14)   attributes:INT
( 16)   first:PTR TO mc
( 20)   lower:LONG
( 24)   upper:LONG
( 28)   free:LONG
(----) ENDOBJECT      /* SIZEOF=32 */

(----) OBJECT memhandlerdata
(  0)   requestsize:LONG

```

```

( 4) requestflags:LONG
( 8) flags:LONG
(----) ENDOBJECT      /* SIZEOF=12 */

(----) OBJECT me
( 0) reqs:LONG
( 0) addr:LONG
( 4) length:LONG
(----) ENDOBJECT      /* SIZEOF=8 */

(----) OBJECT ml
( 0) ln:ln (or ARRAY OF ln)
(14) numentries:INT
(----) ENDOBJECT      /* SIZEOF=16 */

CONST MEMF_FAST=4,
      MEMF_24BITDMA=$200,
      MEM_ALL_DONE=-1,
      MEMF_LOCAL=$100,
      MEMF_REVERSE=$40000,
      MEM_BLOCKMASK=7,
      MEMF_LARGEST=$20000,
      MEMF_CLEAR=$10000,
      MEMF_PUBLIC=1,
      MEMF_CHIP=2,
      MEMF_KICK=$400,
      MEMF_ANY=0,
      MEM_TRY_AGAIN=1,
      MEMF_TOTAL=$80000,
      MEMHF_RECYCLE=1,
      MEM_DID_NOTHING=0,
      MEM_BLOCKSIZE=8,
      MEMF_NO_EXPUNGE=$80000000

```

1.77 nodes.m

```

(----) OBJECT mln
( 0) succ:PTR TO mln
( 4) pred:PTR TO mln
(----) ENDOBJECT      /* SIZEOF=8 */

(----) OBJECT ln
( 0) succ:PTR TO ln
( 4) pred:PTR TO ln
( 8) type:CHAR
( 9) pri:CHAR
(10) name:PTR TO CHAR
(----) ENDOBJECT      /* SIZEOF=14 */

CONST NT_FONT=12,
      NT_MSGPORT=4,
      NT_BOOTNODE=16,
      NT_KICKMEM=17,
      NT_TASK=1,
      NT_EXTENDED=$FF,

```



```

NT_SEMAPHORE=14,
NT_SOFTINT=11,
NT_LIBRARY=9,
NT_GRAPHICS=18,
NT_REPLYMSG=7,
NT_USER=$FE,
NT_INTERRUPT=2,
NT_DEVICE=3,
NT_UNKNOWN=0,
NT_PROCESS=13,
NT_SIGNALSEM=15,
NT_FREEMSG=6,
NT_DEATHMESSAGE=19,
NT_MESSAGE=5,
NT_MEMORY=10,
NT_RESOURCE=8

```

1.78 ports.m

```

(----) OBJECT mn
(  0)   ln:ln (or ARRAY OF ln)
( 14)   replyport:PTR TO mp
( 18)   length:INT
(----) ENDOBJECT      /* SIZEOF=20 */

(----) OBJECT mp
(  0)   ln:ln (or ARRAY OF ln)
( 14)   flags:CHAR
( 15)   sigbit:CHAR
( 16)   sigtask:LONG
( 20)   msglist:lh (or ARRAY OF lh)
(----) ENDOBJECT      /* SIZEOF=34 */

CONST PA_IGNORE=2,
      PA_SOFTINT=1,
      MP_SOFTINT=16,
      PF_ACTION=3,
      PA_SIGNAL=0

```

1.79 resident.m

```

(----) OBJECT rt
(  0)   matchword:INT
(  2)   matchtag:PTR TO rt
(  6)   endskip:LONG
( 10)   flags:CHAR
( 11)   version:CHAR
( 12)   type:CHAR
( 13)   pri:CHAR
( 14)   name:PTR TO CHAR
( 18)   idstring:PTR TO CHAR
( 22)   init:LONG

```

```
(----) ENDOBJECT      /* SIZEOF=26 */

CONST RTW_NEVER=0,
      RTW_COLDSTART=1,
      RTF_COLDSTART=1,
      RTF_SINGLETASK=2,
      RTF_AFTERDOS=4,
      RTC_MATCHWORD=$4AFC,
      RTF_AUTOINIT=$80
```

1.80 semaphores.m

```
(----) OBJECT sm
(  0)   mp:mp (or ARRAY OF mp)
( 34)   bids:INT
(----) ENDOBJECT      /* SIZEOF=36 */

(----) OBJECT semaphoremessage
(  0)   mn:mn (or ARRAY OF mn)
( 20)   semaphore:PTR TO ss
(----) ENDOBJECT      /* SIZEOF=24 */

(----) OBJECT ss
(  0)   ln:ln (or ARRAY OF ln)
( 14)   nestcount:INT
( 16)   waitqueue:mlh (or ARRAY OF mlh)
( 28)   multiplelink:ssr (or ARRAY OF ssr)
( 40)   owner:PTR TO tc
( 44)   queuecount:INT
(----) ENDOBJECT      /* SIZEOF=46 */

(----) OBJECT ssr
(  0)   mln:mln (or ARRAY OF mln)
(  8)   waiter:PTR TO tc
(----) ENDOBJECT      /* SIZEOF=12 */

CONST SM_LOCKMSG=16,
      SM_SHARED=1,
      SM_EXCLUSIVE=0
```

1.81 strings.m

```
CONST NL=10,
      DEL=$7F,
      BS=8,
      BELL=7,
      CR=13,
      LF=10,
      EOS=0
```

1.82 tasks.m

```

(----) OBJECT stackswapstruct
(   0)   lower:LONG
(   4)   upper:LONG
(   8)   pointer:LONG
(----) ENDOBJECT      /* SIZEOF=12 */

(----) OBJECT etask
(   0)   mn:mn (or ARRAY OF mn)
(  20)   parent:PTR TO tc
(  24)   uniqueid:LONG
(  28)   children:mlh (or ARRAY OF mlh)
(  40)   trapalloc:INT
(  42)   trapable:INT
(  44)   result1:LONG
(  48)   result2:LONG
(  52)   taskmsgport:mp (or ARRAY OF mp)
(----) ENDOBJECT      /* SIZEOF=86 */

(----) OBJECT tc
(   0)   ln:ln (or ARRAY OF ln)
(  14)   flags:CHAR
(  15)   state:CHAR
(  16)   idnestcnt:CHAR
(  17)   tdnestcnt:CHAR
(  18)   sigalloc:LONG
(  22)   sigwait:LONG
(  26)   sigrecvd:LONG
(  30)   sigexcept:LONG
(  34)   etask:PTR TO etask
(  34)   trapalloc:INT
(  36)   trapable:INT
(  38)   exceptdata:LONG
(  42)   exceptcode:LONG
(  46)   trapdata:LONG
(  50)   trapcode:LONG
(  54)   spreg:LONG
(  58)   splower:LONG
(  62)   spupper:LONG
(  66)   switch:LONG
(  70)   launch:LONG
(  74)   mementry:lh (or ARRAY OF lh)
(  88)   userdata:LONG
(----) ENDOBJECT      /* SIZEOF=92 */

CONST TF_SWITCH=$40,
      TB_SWITCH=6,
      TS_INVALID=0,
      CHILD_ACTIVE=4,
      TF_ETASK=8,
      TB_ETASK=3,
      TF_PROCTIME=1,
      TB_PROCTIME=0,
      CHILD_EXITED=3,
      SIGF_SINGLE=16,

```

```

SIGB_SINGLE=4,
SYS_TRAPALLOC=$8000,
SYS_SIGALLOC=$FFFF,
SIGF_DOS=$100,
SIGB_DOS=8,
SIGF_INTUITION=$20,
SIGB_INTUITION=5,
TS_EXCEPT=5,
TF_EXCEPT=$20,
TB_EXCEPT=5,
SIGF_NET=$80,
SIGB_NET=7,
TS_REMOVED=6,
TS_READY=3,
CHILD_NOTNEW=1,
SIGF_BLIT=16,
SIGB_BLIT=4,
TF_STACKCHK=16,
TB_STACKCHK=4,
TS_WAIT=4,
TS_ADDED=1,
TF_LAUNCH=$80,
TB_LAUNCH=7,
SIGF_CHILD=2,
SIGB_CHILD=1,
CHILD_NOTFOUND=2,
SIGF_ABORT=1,
SIGB_ABORT=0,
TS_RUN=2

```

1.83 types.m

```

CONST BYTEMASK=$FF,
      LIBRARY_MINIMUM=$21,
      INCLUDE_VERSION=$28

```

1.84 gadgets

```

colorwheel.m          gradientslider.m
tapedeck.m

```

1.85 colorwheel.m

```

(----) OBJECT colorwheelrgb
(  0)   red:LONG
(  4)   green:LONG
(  8)   blue:LONG
(----) ENDOBJECT      /* SIZEOF=12 */

(----) OBJECT colorwheelhsb

```

```
( 0)    hue:LONG
( 4)    saturation:LONG
( 8)    brightness:LONG
(----) ENDOBJECT      /* SIZEOF=12 */

CONST WHEEL_DUMMY=$84000000,
      WHEEL_SCREEN=$84000009,
      WHEEL_GREEN=$84000006,
      WHEEL_DONATION=$8400000B,
      WHEEL_SATURATION=$84000002,
      WHEEL_BLUE=$84000007,
      WHEEL_ABBRV=$8400000A,
      WHEEL_HSB=$84000004,
      WHEEL_BRIGHTNESS=$84000003,
      WHEEL_BEVELBOX=$8400000C,
      WHEEL_RED=$84000005,
      WHEEL_HUE=$84000001,
      WHEEL_RGB=$84000008,
      WHEEL_MAXPENS=$8400000E,
      WHEEL_GRADIENTSLIDER=$8400000D
```

1.86 gradientslider.m

```
CONST GRAD_DUMMY=$85000000,
      GRAD_CURVAL=$85000002,
      GRAD_SKIPVAL=$85000003,
      GRAD_PENARRAY=$85000005,
      GRAD_MAXVAL=$85000001,
      GRAD_KNOBPIXELS=$85000004
```

1.87 tapedeck.m

```
CONST TDECK_FRAMES=$8500000B,
      BUT_BEGIN=5,
      TDECK_DUMMY=$85000000,
      BUT_PLAY=1,
      BUT_PAUSE=4,
      BUT_FORWARD=2,
      BUT_STOP=3,
      TDECK_PAUSED=$85000002,
      BUT_END=7,
      BUT_REWIND=0,
      BUT_FRAME=6,
      TDECK_CURRENTFRAME=$8500000C,
      TDECK_MODE=$85000001,
      TDECK_TAPE=$85000003
```

1.88 gadtoolsbox

```
forms.m          gtxbase.m
gui.m            hotkey.m
prefs.m          textclass.m
```

1.89 forms.m

```
CONST ID_GXMN=$47584D4E,
      ID_GXTX=$47585458,
      ID_GXBX=$47584258,
      ID_GXGA=$47584741,
      ID_GXWD=$47585744,
      ID_GXUI=$47585549,
      ID_MEDA=$4D454441,
      ID_ITXT=$49545854,
      ID_BBOX=$42424F58,
      ID_GADA=$47414441,
      ID_WDDA=$57444441,
      ID_GGUI=$47475549,
      ID_VERS=$56455253

(----) OBJECT version
(  0)   version:INT
(  2)   flags:INT
(  4)   reserved:substructure
(----) ENDOBJECT      /* SIZEOF=20 */

CONST MAXMENUTITLE=$50,
      MAXMENULABEL=$22,
      MAXSHORTCUT=2,
      MENUVERSION=0

(----) OBJECT menudata
(  0)   newmenu:substructure
( 20)   title:substructure
(100)   label:substructure
(134)   shortcut:substructure
(136)   flags:INT
(----) ENDOBJECT      /* SIZEOF=138 */

CONST MAXTEXTLENGTH=$50,
      ITXTVERSION=0

(----) OBJECT itextdata
(  0)   itext:substructure
( 20)   text:substructure
(----) ENDOBJECT      /* SIZEOF=100 */

CONST BBOXVERSION=0

(----) OBJECT bboxdata
(  0)   left:INT
(  2)   top:INT
(  4)   width:INT
(  6)   height:INT
```

```
( 8)    flags:INT
(----) ENDOBJECT      /* SIZEOF=10 */

CONST BBF_RECESSED=1,
      BBF_DROPBOX=2,
      MAXGADGETTEXT=$50,
      MAXGADGETLABEL=$22,
      GADGETVERSION=0

(----) OBJECT gadgetdata
( 0)    newgadget:substructure
( 30)    gadgettext:substructure
(110)    gadgetlabel:substructure
(144)    flags:LONG
(148)    kind:INT
(150)    numtags:INT
(152)    reserved:substructure
(----) ENDOBJECT      /* SIZEOF=168 */

CONST GDF_ISLOCKED=$20,
      GDF_NEEDLOCK=$40,
      MAXWINDOWNAME=$22,
      MAXWINDOWTITLE=$50,
      MAXWDSCREENTITLE=$50,
      WINDOWVERSION=0

(----) OBJECT windowdata
( 0)    name:substructure
( 34)    title:substructure
(114)    screentitle:substructure
(194)    numtags:INT
(196)    idcountfrom:INT
(198)    idcmp:LONG
(202)    windowflags:LONG
(206)    tagflags:LONG
(210)    innerwidth:INT
(212)    innerheight:INT
(214)    showtitle:INT
(216)    mousequeue:INT
(218)    rptqueue:INT
(220)    flags:INT
(222)    leftborder:INT
(224)    topborder:INT
(226)    reserved:substructure
(----) ENDOBJECT      /* SIZEOF=236 */

CONST WDF_INNERWIDTH=1,
      WDF_INNERHEIGHT=2,
      WDF_ZOOM=4,
      WDF_MOUSEQUEUE=8,
      WDF_RPTQUEUE=16,
      WDF_AUTOADJUST=$20,
      WDF_DEFAULTZOOM=$40,
      WDF_FALLBACK=$80,
      MAXSCREENTITLE=$50,
      FONTNAMELENGTH=$80,
      MAXCOLORSPEC=$21,
```

```

        MAXDRIPENS=10,
        MAXMOREDRIPENS=10,
        GUIVERSION=0

(----) OBJECT guidata
(  0)  flags0:LONG
(  4)  screentitle:substructure
( 84)  left:INT
( 86)  top:INT
( 88)  width:INT
( 90)  height:INT
( 92)  depth:INT
( 94)  displayid:LONG
( 98)  overscan:INT
(100)  dripens:substructure
(120)  colors:substructure
(384)  fontname:substructure
(512)  font:substructure
(520)  moredripens:substructure
(540)  reserved:substructure
(560)  flags1:LONG
(564)  stdscreenwidth:INT
(566)  stdscreenheight:INT
(568)  activekind:INT
(570)  lastproject:INT
(572)  gridx:INT
(574)  gridy:INT
(576)  offx:INT
(578)  offy:INT
(580)  reserved1:substructure
(----) ENDOBJECT      /* SIZEOF=594 */

CONST GUOF_AUTOSCROLL=1,
      GUOF_WORKBENCH=2,
      GUOF_PUBLIC=4,
      GUOF_CUSTOM=8

```

1.90 gtxbase.m

```

CONST GTXVERSION=$26

(----) OBJECT gtxbase
(  0)  lib:substructure
( 34)  dosbase:LONG
( 38)  intuitionbase:LONG
( 42)  gfxbase:LONG
( 46)  gadtoolsbase:LONG
( 50)  utilitybase:LONG
( 54)  iffparsebase:LONG
( 58)  consoledevice:LONG
( 62)  nofragbase:LONG
( 66)  ppbase:LONG
(----) ENDOBJECT      /* SIZEOF=70 */

```

1.91 gui.m

```
(----) OBJECT extnewgadget
(   0)   next:LONG
(   4)   prev:LONG
(   8)   tags:LONG
(  12)   reserved0:substructure
(  16)   newgadget:substructure
(  46)   gadgetlabel:substructure
(  80)   gadgettext:substructure
( 160)   flags:LONG
( 164)   kind:INT
( 166)   reserved1:substructure
(----) ENDOBJECT      /* SIZEOF=304 */

(----) OBJECT extgadgetlist
(   0)   first:LONG
(   4)   endmark:LONG
(   8)   last:LONG
(----) ENDOBJECT      /* SIZEOF=12 */

(----) OBJECT extnewmenu
(   0)   next:LONG
(   4)   prev:LONG
(   8)   reserved0:substructure
(  14)   newmenu:substructure
(  34)   menutitle:substructure
( 114)   menulabel:substructure
( 148)   reserved1:substructure
( 152)   items:LONG
( 156)   reserved2:substructure
( 158)   commkey:substructure
( 160)   reserved3:substructure
(----) ENDOBJECT      /* SIZEOF=162 */

(----) OBJECT extmenulist
(   0)   first:LONG
(   4)   endmark:LONG
(   8)   last:LONG
(----) ENDOBJECT      /* SIZEOF=12 */

(----) OBJECT bevelbox
(   0)   next:LONG
(   4)   prev:LONG
(   8)   reserved0:substructure
(  12)   left:INT
(  14)   top:INT
(  16)   width:INT
(  18)   height:INT
(  20)   reserved1:substructure
(  52)   flags:INT
(----) ENDOBJECT      /* SIZEOF=54 */

(----) OBJECT bevellist
(   0)   first:LONG
(   4)   endmark:LONG
```

```
( 8)    last:LONG
(----) ENDOBJECT      /* SIZEOF=12 */

(----) OBJECT projectwindow
( 0)    next:LONG
( 4)    prev:LONG
( 8)    reserved0:substructure
(14)    name:substructure
(48)    countidfrom:INT
(50)    tags:LONG
(54)    leftborder:INT
(56)    topborder:INT
(58)    windowtitle:substructure
(138)   screentitle:substructure
(218)   reserved2:substructure
(410)   idcmp:LONG
(414)   windowflags:LONG
(418)   windowtext:LONG
(422)   gadgets:substructure
(434)   menus:substructure
(446)   boxes:substructure
(458)   tagflags:LONG
(462)   innerwidth:INT
(464)   innerheight:INT
(466)   showtitle:INT
(468)   reserved3:substructure
(474)   mousequeue:INT
(476)   rptqueue:INT
(478)   flags:INT
(----) ENDOBJECT      /* SIZEOF=480 */

(----) OBJECT windowlist
( 0)    first:LONG
( 4)    endmark:LONG
( 8)    last:LONG
(----) ENDOBJECT      /* SIZEOF=12 */

CONST RG_TAGBASE=$80000200,
      RG_GUI=$80000201,
      RG_CONFIG=$80000202,
      RG_CCONFIG=$80000203,
      RG_ASMCONFIG=$80000204,
      RG_LIBGEN=$80000205,
      RG_WINDOWLIST=$80000206,
      RG_VALID=$80000207,
      RG_PASSWORDENTRY=$80000208,
      VLF_GUI=1,
      VLF_CONFIG=2,
      VLF_CCONFIG=4,
      VLF_ASMCONFIG=8,
      VLF_LIBGEN=16,
      VLF_WINDOWLIST=$20,
      ERROR_NOMEM=1,
      ERROR_OPEN=2,
      ERROR_READ=3,
      ERROR_WRITE=4,
      ERROR_PARSE=5,
```

```
ERROR_PACKER=6,  
ERROR_PPLIB=7,  
ERROR_NOTGUIFILE=8
```

1.92 hotkey.m

```
CONST SRF_MX=1,  
      SRF_CYCLE=2,  
      SRF_SLIDER=4,  
      SRF_SCROLLER=8,  
      SRF_LISTVIEW=16,  
      SRF_PALETTE=$20,  
      HKH_TAGBASE=$80000100,  
      HKH_KEYMAP=$80000101,  
      HKH_USENEWBUTTON=$80000102,  
      HKH_NEWTEXT=$80000103,  
      HKH_SETREPEAT=$80000104
```

1.93 prefs.m

```
CONST GTBCONFIGVERSION=0,  
      MAXUSERNAME=$40,  
      MAXICONPATH=$80,  
      ID_GTCO=$4754434F  
  
(----) OBJECT gadtoolsconfig  
( 0)    configflags0:LONG  
( 4)    configflags1:LONG  
( 8)    crunchbuffer:INT  
(10)    crunchtype:INT  
(12)    username:substructure  
(76)    iconpath:substructure  
(204)   reserved:substructure  
(----) ENDOBJECT      /* SIZEOF=220 */  
  
CONST GC0F_COORDINATES=1,  
      GC0F_WRITEICON=2,  
      GC0F_GZZADJUST=4,  
      GC0F_CRUNCH=8,  
      GC0F_CLOSEWBENCH=16,  
      GC0F_PASSWORD=$20,  
      GC0F_OVERWRITE=$40,  
      GC0F_ASLFREQ=$80,  
      GC0F_FONTADAPT=$100,  
      GC0F_USEPUBSCREEN=$200,  
      GTBLIBGENVERSION=0,  
      MAXLIBNAME=$20,  
      MAXBASENAME=$20,  
      ID_LIBG=$4C494247  
  
(----) OBJECT librarygen  
( 0)    libraryname:substructure
```

```

( 32)    librarybase:substructure
( 64)    flags:INT
( 66)    minversion:INT
( 68)    reserved:substructure
(----) ENDOBJECT      /* SIZEOF=84 */

CONST LGF_GENERATE=1,
      LGF_MODULE=2,
      LGF_FAILREQ=4,
      LGF_DISKLIB=8,
      LGF_INTERNAL=16,
      GTBGENCVERSION=0,
      ID_GENC=$47454E43

(----) OBJECT genc
(  0)    gtconfig:substructure
( 220)    gencflags0:LONG
( 224)    gencflags1:LONG
( 228)    reserved:substructure
(----) ENDOBJECT      /* SIZEOF=244 */

CONST CSOF_STATIC=1,
      CSOF_GENOPENFONT=2,
      CSOF_SYSFONT=4,
      CSOF_PRAGMAS=8,
      CSOF_AZTEC=16,
      CSOF_GENHANDLER=$20,
      CSOF_TEMPLATES=$40,
      GTBGENASMVERSION=0,
      ID_GENA=$47454E41

(----) OBJECT genasm
(  0)    gtconfig:substructure
( 220)    genasmflags0:LONG
( 224)    genasmflags1:LONG
( 228)    reserved:substructure
(----) ENDOBJECT      /* SIZEOF=244 */

CONST ASOF_STATIC=1,
      ASOF_RAW=2,
      ASOF_GENOPENFONT=4,
      ASOF_SYSFONT=8,
      ASOF_AMIGALIB=16

```

1.94 textclass.m

```

CONST TX_TAGBASE=$80000001,
      TX_TEXTATTR=$80000002,
      TX_STYLE=$80000003,
      TX_FORCETEXTPEN=$80000004,
      TX_UNDERSCORE=$80000005,
      TX_FLAGS=$80000006,
      TX_TEXT=$80000007,
      TX_NOBOX=$80000008

```

1.95 graphics

clip.m	coerce.m
copper.m	display.m
displayinfo.m	gels.m
gfx.m	gfxbase.m
gfxmacros.m	gfxnodes.m
graphint.m	layers.m
modeid.m	monitor.m
rastport.m	regions.m
rpattn.m	scale.m
sprite.m	text.m
videocontrol.m	view.m

1.96 clip.m

```
(----) OBJECT cliprect
(  0)  next:PTR TO cliprect
(  4)  prev:PTR TO cliprect
(  8)  lobs:PTR TO layer
( 12)  bitmap:PTR TO bitmap
( 16)  minx:INT
( 18)  miny:INT
( 20)  maxx:INT
( 22)  maxy:INT
( 24)  p1_:LONG
( 28)  p2_:LONG
( 32)  reserved:LONG
( 36)  flags:LONG
(----) ENDOBJECT      /* SIZEOF=40 */

(----) OBJECT layer
(  0)  front:PTR TO layer
(  4)  back:PTR TO layer
(  8)  cliprect:PTR TO cliprect
( 12)  rp:PTR TO rastport
( 16)  minx:INT
( 18)  miny:INT
( 20)  maxx:INT
( 22)  maxy:INT
( 24)  reserved[4]:ARRAY OF CHAR
( 28)  priority:INT
( 30)  flags:INT
( 32)  superbitmap:PTR TO bitmap
( 36)  supercliprect:PTR TO cliprect
( 40)  window:LONG
( 44)  scroll_x:INT
( 46)  scroll_y:INT
( 48)  cr:PTR TO cliprect
( 52)  cr2:PTR TO cliprect
( 56)  crnew:PTR TO cliprect
( 60)  supersavercliprects:PTR TO cliprect
( 64)  cliprects_:PTR TO cliprect
( 68)  layerinfo:PTR TO layer_info
```

```
( 72)    lock:ss (or ARRAY OF ss)
( 118)   backfill:PTR TO hook
( 122)   reserved1:LONG
( 126)   clipregion:PTR TO region
( 130)   savecliprects:PTR TO region
( 134)   reserved2[22]:ARRAY OF CHAR
( 156)   damagelist:PTR TO region
(----) ENDOBJECT      /* SIZEOF=160 */
```

```
CONST LR_RASTPORT=12,
      LR_BACK=4,
      CR_PREV=4,
      CR_LOBS=8,
      CR_NEEDS_NO_LAYERBLIT_DAMAGE=2,
      LR_FRONT=0,
      ISGRTRX=4,
      ISGRTRY=8,
      ISLESSX=1,
      ISLESSY=2,
      NEWLOCKS=1,
      CR_NEEDS_NO_CONCEALED_RASTERS=1
```

1.97 coerce.m

```
CONST IGNORE_MCOMPAT=4,
      PRESERVE_COLORS=1,
      AVOID_FLICKER=2,
      BIDTAG_COERCE=1
```

1.98 copper.m

```
(----) OBJECT copinit
(  0)   vsync_hblank[2]:ARRAY OF INT
(  4)   diagstrt[12]:ARRAY OF INT
( 28)   fm0[2]:ARRAY OF INT
( 32)   diwstart[10]:ARRAY OF INT
( 52)   bplcon2[2]:ARRAY OF INT
( 56)   sprfix[16]:ARRAY OF INT
( 88)   sprstrtup[32]:ARRAY OF INT
(152)   wait14[2]:ARRAY OF INT
(156)   norm_hblank[2]:ARRAY OF INT
(160)   jump[2]:ARRAY OF INT
(164)   wait_forever[6]:ARRAY OF INT
(176)   sprstop[8]:ARRAY OF INT
(----) ENDOBJECT      /* SIZEOF=192 */

(----) OBJECT ucoplist
(  0)   next:PTR TO ucoplist
(  4)   firstcoplist:PTR TO coplist
(  8)   coplist:PTR TO coplist
(----) ENDOBJECT      /* SIZEOF=12 */
```

```

(----) OBJECT coplist
(  0)  next:PTR TO coplist
(  4)  coplist_:PTR TO coplist
(  8)  viewport_:PTR TO viewport
( 12)  copins:PTR TO copins
( 16)  copptr:PTR TO copins
( 20)  coplstart:PTR TO INT
( 24)  copsstart:PTR TO INT
( 28)  count:INT
( 30)  maxcount:INT
( 32)  dyoffset:INT
( 34)  slrepeat:INT
( 36)  flags:INT
(----) ENDOBJECT      /* SIZEOF=38 */

(----) OBJECT cprlist
(  0)  next:PTR TO cprlist
(  4)  start:PTR TO INT
(  8)  maxcount:INT
(----) ENDOBJECT      /* SIZEOF=10 */

(----) OBJECT copins
(  0)  opcode:INT
(  2)  nxtlist:PTR TO coplist
(  2)  destaddr:INT
(  2)  vwaitpos:INT
(  4)  destdata:INT
(  4)  hwaitpos:INT
(----) ENDOBJECT      /* SIZEOF=6 */

CONST COPPER_MOVE=0,
      CPR_NT_SHT=$4000,
      CPR_NT_SYS=$2000,
      CPR_NT_LOF=$8000,
      CPRNXTBUF=2,
      COPPER_WAIT=1,
      HALF_LINE=2,
      EXACT_LINE=1

#define DESTDATA/0
#define DESTADDR/0
#define HWAITPOS/0
#define VWAITPOS/0

```

1.99 display.m

```

CONST DBLPF=$400,
      PFA_FINE_SCROLL=15,
      COLORON=$200,
      DFTCH_MASK=$FF,
      PF_FINE_SCROLL_MASK=15,
      MODE_640=$8000,
      PLNCNTSHFT=12,
      PLNCNTMSK=7,
      PF2PRI=$40,

```

```

DIW_VRTCL_POS_SHIFT=7,
PFB_FINE_SCROLL_SHIFT=4,
INTERLACE=4,
VPOSRLOF=$8000,
DIW_VRTCL_POS=$1FF,
DIW_HORIZ_POS=$7F,
HOLDNMODIFY=$800

```

1.100 displayinfo.m

```

(----) OBJECT vecinfo
(  0)   qh:qh (or ARRAY OF qh)
( 16)   vec:LONG
( 20)   data:LONG
( 24)   type:INT
( 26)   pad[3]:ARRAY OF INT
( 32)   reserved[2]:ARRAY OF LONG
(----) ENDOBJECT      /* SIZEOF=40 */

(----) OBJECT nameinfo
(  0)   qh:qh (or ARRAY OF qh)
( 16)   name[32]:ARRAY OF CHAR
( 48)   reserved[2]:ARRAY OF LONG
(----) ENDOBJECT      /* SIZEOF=56 */

(----) OBJECT monitorinfo
(  0)   qh:qh (or ARRAY OF qh)
( 16)   mspc:PTR TO monitorspec
( 20)   viewposition:tpoint (or ARRAY OF tpoint)
( 24)   viewresolution:tpoint (or ARRAY OF tpoint)
( 28)   viewpositionrange:rectangle (or ARRAY OF rectangle)
( 36)   totalrows:INT
( 38)   totalcolorclocks:INT
( 40)   minrow:INT
( 42)   compatibility:INT
( 44)   pad[32]:ARRAY OF CHAR
( 76)   mousetick:tpoint (or ARRAY OF tpoint)
( 80)   defaultviewposition:tpoint (or ARRAY OF tpoint)
( 84)   preferredmodeid:LONG
( 88)   reserved[2]:ARRAY OF LONG
(----) ENDOBJECT      /* SIZEOF=96 */

(----) OBJECT dimensioninfo
(  0)   qh:qh (or ARRAY OF qh)
( 16)   maxdepth:INT
( 18)   minrasterwidth:INT
( 20)   minrasterheight:INT
( 22)   maxrasterwidth:INT
( 24)   maxrasterheight:INT
( 26)   nominal:rectangle (or ARRAY OF rectangle)
( 34)   maxoscan:rectangle (or ARRAY OF rectangle)
( 42)   videooscan:rectangle (or ARRAY OF rectangle)
( 50)   txtoscan:rectangle (or ARRAY OF rectangle)
( 58)   stdoscan:rectangle (or ARRAY OF rectangle)
( 66)   pad[14]:ARRAY OF CHAR

```

```

( 80)    reserved[2]:ARRAY OF LONG
(----) ENDOBJECT      /* SIZEOF=88 */

(----) OBJECT displayinfo
(  0)    qh:qh (or ARRAY OF qh)
( 16)    notavailable:INT
( 18)    propertyflags:LONG
( 22)    resolution:tpoint (or ARRAY OF tpoint)
( 26)    pixelspeed:INT
( 28)    numstdsprites:INT
( 30)    paletterange:INT
( 32)    spriteresolution:tpoint (or ARRAY OF tpoint)
( 36)    pad[4]:ARRAY OF CHAR
( 40)    redbits:CHAR
( 41)    greenbits:CHAR
( 42)    bluebits:CHAR
( 43)    pad2a:CHAR
( 44)    pad2b[4]:ARRAY OF CHAR
( 48)    reserved[2]:ARRAY OF LONG
(----) ENDOBJECT      /* SIZEOF=56 */

(----) OBJECT qh
(  0)    structid:LONG
(  4)    displayid:LONG
(  8)    skipid:LONG
( 12)    length:LONG
(----) ENDOBJECT      /* SIZEOF=16 */

CONST DIPF_IS_DBUFFER=$100000,
      MCOMPAT_MIXED=0,
      DIPF_IS_SCANDBL=$20000,
      DIPF_IS_EXTRAHALFBRITE=$1000,
      DIPF_IS_SPRITES_CHNG_PRI=$80000,
      DIPF_IS_SPRITES_ATT=$2000,
      DIPF_IS_GENLOCK=$80,
      DI_AVAIL_NOTWITHGENLOCK=4,
      DIPF_IS_BEAMSYNC=$800,
      DIPF_IS_HAM=8,
      DTAG_DIMS=$80001000,
      DIPF_IS_SPRITES=$40,
      DIPF_IS_SPRITES_CHNG_BASE=$40000,
      DIPF_IS_AA=$10000,
      DI_AVAIL_NOCHIPS=1,
      DIPF_IS_DRAGGABLE=$200,
      DIPF_IS_FOREIGN=$80000000,
      DIPF_IS_PF2PRI=4,
      DISPLAYNAMELEN=$20,
      DTAG_VEC=$80004000,
      DIPF_IS_DUALPF=2,
      DIPF_IS_LACE=1,
      DIPF_IS_SPRITES_CHNG_RES=$4000,
      DIPF_IS_PANELLED=$400,
      DTAG_MNTR=$80002000,
      DIPF_IS_ECS=16,
      DI_AVAIL_NOMONITOR=2,
      MCOMPAT_SELF=1,
      DIPF_IS_PROGBEAM=$200000,

```

```

MCOMPAT_NOBODY=-1,
DTAG_DISP=$800000000,
DIPF_IS_PAL=$20,
DIPF_IS_SPRITES_BORDER=$8000,
DTAG_NAME=$80003000,
DIPF_IS_WB=$100

```

1.101 gels.m

```

(----) OBJECT colltable
(  0)  collptrs[16]:ARRAY OF LONG
(----) ENDOBJECT      /* SIZEOF=64 */

(----) OBJECT dbp
(  0)  bufy:INT
(  2)  bufx:INT
(  4)  bufpath:PTR TO vs
(  8)  bufbuffer:PTR TO INT
( 12)  bufplanes:PTR TO LONG
(----) ENDOBJECT      /* SIZEOF=16 */

(----) OBJECT ao
(  0)  nextob:PTR TO ao
(  4)  prevob:PTR TO ao
(  8)  clock:LONG
( 12)  anoldy:INT
( 14)  anoldx:INT
( 16)  any:INT
( 18)  anx:INT
( 20)  yvel:INT
( 22)  xvel:INT
( 24)  xaccel:INT
( 26)  yaccel:INT
( 28)  ringytrans:INT
( 30)  ringxtrans:INT
( 32)  animoroutine:LONG
( 36)  headcomp:PTR TO ac
(----) ENDOBJECT      /* SIZEOF=40 */

(----) OBJECT ac
(  0)  compflags:INT
(  2)  timer:INT
(  4)  timeset:INT
(  6)  nextcomp:PTR TO ac
( 10)  prevcomp:PTR TO ac
( 14)  nextseq:PTR TO ac
( 18)  prevseq:PTR TO ac
( 22)  animcroutine:LONG
( 26)  ytrans:INT
( 28)  xtrans:INT
( 30)  headob:PTR TO ao
( 34)  animbob:PTR TO bob
(----) ENDOBJECT      /* SIZEOF=38 */

(----) OBJECT bob

```

```
( 0)  bobflags:INT
( 2)  savebuffer:PTR TO INT
( 6)  imageshadow:PTR TO INT
(10)  before:PTR TO bob
(14)  after:PTR TO bob
(18)  bobvsprite:PTR TO vs
(22)  bobcomp:PTR TO ac
(26)  dbuffer:PTR TO dbp
(----) ENDOBJECT      /* SIZEOF=30 */
```

```
(----) OBJECT vs
( 0)  nextvsprite:PTR TO vs
( 4)  prevvsprite:PTR TO vs
( 8)  drawpath:PTR TO vs
(12)  clearpath:PTR TO vs
(16)  oldy:INT
(18)  oldx:INT
(20)  vsflags:INT
(22)  y:INT
(24)  x:INT
(26)  height:INT
(28)  width:INT
(30)  depth:INT
(32)  memask:INT
(34)  hitmask:INT
(36)  imagedata:PTR TO INT
(40)  borderline:PTR TO INT
(44)  collmask:PTR TO INT
(48)  sprcolors:PTR TO INT
(52)  vsbob:PTR TO bob
(56)  planepick:CHAR
(57)  planeonoff:CHAR
(----) ENDOBJECT      /* SIZEOF=58 */
```

```
CONST BF_BOBNIX=$800,
      ANIMHALF=$20,
      VSF_VSPRITE=1,
      B2SWAP=1,
      VSF_SAVEBACK=2,
      B2NORM=0,
      VSF_BOBUPDATE=$200,
      BF_SAVEBOB=1,
      BF_BWAITING=$100,
      VSF_BACKSAVED=$100,
      BF_BOBSAWAY=$400,
      VSF_GELGONE=$400,
      BF_SAVEPRESERVE=$1000,
      VSF_VSOVERFLOW=$800,
      VSF_MUSTDRAW=8,
      B2BOBBER=2,
      RINGTRIGGER=1,
      BF_BDRAWN=$200,
      BF_BOBISCOMP=2,
      BF_OUTSTEP=$2000,
      ANFRACSIZE=6,
      VSF_OVERLAY=4,
      BUSERFLAGS=$FF,
```

```

        SUSERFLAGS=$FF

#define RemBob/1
#define InitAnimate/1

```

1.102 gfx.m

```

(----) OBJECT tpoint
(  0)   x:INT
(  2)   y:INT
(----) ENDOBJECT      /* SIZEOF=4 */

(----) OBJECT rect32
(  0)   minx:LONG
(  4)   miny:LONG
(  8)   maxx:LONG
( 12)   maxy:LONG
(----) ENDOBJECT      /* SIZEOF=16 */

(----) OBJECT rectangle
(  0)   minx:INT
(  2)   miny:INT
(  4)   maxx:INT
(  6)   maxy:INT
(----) ENDOBJECT      /* SIZEOF=8 */

(----) OBJECT bitmap
(  0)   bytesperrow:INT
(  2)   rows:INT
(  4)   flags:CHAR
(  5)   depth:CHAR
(  6)   pad:INT
(  8)   planes[8]:ARRAY OF LONG
(----) ENDOBJECT      /* SIZEOF=40 */

CONST BMF_STANDARD=8,
      BMB_STANDARD=3,
      BMF_MINPLANES=16,
      BMB_MINPLANES=4,
      BMF_INTERLEAVED=4,
      BMB_INTERLEAVED=2,
      BMF_DISPLAYABLE=2,
      BMB_DISPLAYABLE=1,
      DENISE=1,
      BMF_CLEAR=1,
      BMB_CLEAR=0,
      BMA_HEIGHT=0,
      BMA_DEPTH=4,
      BITCLR=0,
      BMA_WIDTH=8,
      AGNUS=1,
      BITSET=$8000,
      BMA_FLAGS=12

```

```
#define RASSIZE/2
```

1.103 gfxbase.m

```
(----) OBJECT gfxbase
(  0)  lib:lib (or ARRAY OF lib)
( 34)  actiview:PTR TO view
( 38)  copinit:PTR TO copinit
( 42)  cia:PTR TO LONG
( 46)  blitter:PTR TO LONG
( 50)  loflist:PTR TO INT
( 54)  shflist:PTR TO INT
( 58)  blthd:PTR TO bltnode
( 62)  blttl:PTR TO bltnode
( 66)  bsblthd:PTR TO bltnode
( 70)  bsblttl:PTR TO bltnode
( 74)  vbsrv:is (or ARRAY OF is)
( 96)  timsrv:is (or ARRAY OF is)
(118)  bltsrv:is (or ARRAY OF is)
(140)  textfonts:lh (or ARRAY OF lh)
(154)  defaultfont:PTR TO textfont
(158)  modes:INT
(160)  vblank:CHAR
(161)  debug:CHAR
(162)  beamsync:INT
(164)  system_bplcon0:INT
(166)  spritereserved:CHAR
(167)  bytereserved:CHAR
(168)  flags:INT
(170)  blitlock:INT
(172)  blitnest:INT
(174)  blitwaitq:lh (or ARRAY OF lh)
(188)  blitowner:PTR TO tc
(192)  tof_waitq:lh (or ARRAY OF lh)
(206)  displayflags:INT
(208)  simplesprites:PTR TO LONG
(212)  maxdisplayrow:INT
(214)  maxdisplaycolumn:INT
(216)  normaldisplayrows:INT
(218)  normaldisplaycolumns:INT
(220)  normaldpmx:INT
(222)  normaldpmy:INT
(224)  lastchancememory:PTR TO ss
(228)  lcmpt:PTR TO INT
(232)  microspeline:INT
(234)  mindisplaycolumn:INT
(236)  chiprevbits0:CHAR
(237)  memtype:CHAR
(238)  crb_reserved[4]:ARRAY OF CHAR
(242)  monitor_id:INT
(244)  hedley[8]:ARRAY OF LONG
(276)  hedley_sprites[8]:ARRAY OF LONG
(308)  hedley_sprites1[8]:ARRAY OF LONG
(340)  hedley_count:INT
(342)  hedley_flags:INT
```

```

( 344)  hedley_tmp:INT
( 346)  hash_table:PTR TO LONG
( 350)  current_tot_rows:INT
( 352)  current_tot_cclks:INT
( 354)  hedley_hint:CHAR
( 355)  hedley_hint2:CHAR
( 356)  nreserved[4]:ARRAY OF LONG
( 372)  a2024_sync_raster:PTR TO LONG
( 376)  control_delta_pal:INT
( 378)  control_delta_ntsc:INT
( 380)  current_monitor:PTR TO monitorspec
( 384)  monitorlist:lh (or ARRAY OF lh)
( 398)  default_monitor:PTR TO monitorspec
( 402)  monitorlistsemaphore:PTR TO ss
( 406)  displayinfodatabase:LONG
( 410)  topline:INT
( 412)  activiewcprsemaphore:PTR TO ss
( 416)  utilbase:PTR TO LONG
( 420)  exebase:PTR TO LONG
( 424)  bwshifts:PTR TO CHAR
( 428)  strtfetchmasks:PTR TO INT
( 432)  stopfetchmasks:PTR TO INT
( 436)  overrun:PTR TO INT
( 440)  realstops:PTR TO INT
( 444)  spritewidth:INT
( 446)  spritefmode:INT
( 448)  softsprites:CHAR
( 449)  arraywidth:CHAR
( 450)  defaultspritewidth:INT
( 452)  sprmovedisable:CHAR
( 453)  wantchips:CHAR
( 454)  boardmemtype:CHAR
( 455)  bugs:CHAR
( 456)  layersbase:PTR TO LONG
( 460)  colormask:LONG
( 464)  ivector:LONG
( 468)  idata:LONG
( 472)  specialcounter:LONG
( 476)  dblist:LONG
( 480)  monitorflags:INT
( 482)  scandoubledsprites:CHAR
( 483)  bp3bits:CHAR
( 484)  monitorvblank:analogsignalinterval (or ARRAY OF analogsignalinterval)
( 488)  natural_monitor:PTR TO monitorspec
( 492)  progdata:LONG
( 496)  extsprites:CHAR
( 497)  pad3:CHAR
( 498)  gfxflags:INT
( 500)  vbcounter:LONG
( 504)  hashtablesemaphore:PTR TO ss
( 508)  hwemul[9]:ARRAY OF LONG
(----) ENDOBJECT      /* SIZEOF=544 */

CONST LPEN_SWAP_FRAMES=$20,
      BUS_16=0,
      GENLOC=2,
      BANDWIDTH_2XDBL=2,

```

```

BUS_32=1,
DBL_CAS=2,
NML_CAS=0,
SETCHIPREV_BEST=-1,
GENLOCN=1,
BANDWIDTH_1X=0,
NEW_DATABASE=1,
GFXF_AA_ALICE=4,
GFXB_AA_ALICE=2,
GBFLAGSF_TIMER=$40,
PAL=4,
GFXF_HR_DENISE=2,
GFXB_HR_DENISE=1,
QBOWNERN=1,
BLITMSG_FAULT=4,
BANDWIDTH_4X=3,
BANDWIDTH_2XNML=1,
GFXF_AA_MLISA=16,
GFXF_AA_LISA=8,
GFXB_AA_MLISA=4,
GFXB_AA_LISA=3,
GBFLAGSF_LASTBLIT=$80,
SETCHIPREV_AA=15,
BLITMSG_FAULTN=2,
GFXF_BIG_BLITS=1,
GFXB_BIG_BLITS=0,
NTSC=1,
SETCHIPREV_A=1,
QBOWNER=2,
TODA_SAFE=8,
SETCHIPREV_ECS=3,
REALLY_PALN=4,
PALN=2,
NTSCN=0,
REALLY_PAL=16,
TODA_SAFEN=3,
GFXF_HR_AGNUS=1,
GFXB_HR_AGNUS=0,
OWNBLITTERN=0

```

```

#define chunkytoplanarptr/0
#define GRAPHICSNAME/0

```

1.104 gfxmacros.m

```

#define CMOVE/3
#define SetWrMsk/2
#define OFF_SPRITE/0
#define ON_SPRITE/0
#define OFF_DISPLAY/0
#define ON_DISPLAY/0
#define OFF_VBLANK/0
#define ON_VBLANK/0
#define GetOutlinePen/1
#define SafeSetOutlinePen/2

```

```
#define AreaCircle/4
#define DrawCircle/4
#define CMOVEA/3
#define SetDrPt/2
#define SafeSetWriteMask/2
#define CWAIT/3
#define SetAfPt/3
#define BNDRYOFF/1
#define SetOPen/2
#define CINIT/2
#define CEND/1
```

1.105 gfxnodes.m

```
(----) OBJECT xln
( 0) succ:PTR TO ln
( 4) pred:PTR TO ln
( 8) type:CHAR
( 9) pri:CHAR
(10) name:PTR TO CHAR
(14) subsystem:CHAR
(15) subtype:CHAR
(16) library:LONG
(20) init:LONG
(----) ENDOBJECT /* SIZEOF=24 */

CONST MONITOR_SPEC_TYPE=4,
      SPECIAL_MONITOR_TYPE=3,
      VIEWPORT_EXTRA_TYPE=2,
      VIEW_EXTRA_TYPE=1,
      SS_GRAPHICS=2
```

1.106 graphint.m

```
(----) OBJECT isrvstr
( 0) ln:ln (or ARRAY OF ln)
(14) iptr:PTR TO isrvstr
(18) code:LONG
(22) ccode:LONG
(26) carg:LONG
(----) ENDOBJECT /* SIZEOF=30 */
```

1.107 layers.m

```
(----) OBJECT layer_info
( 0) top_layer:PTR TO layer
( 4) check_lp:PTR TO layer
( 8) obs:PTR TO cliprect
(12) freecliprects:PTR TO cliprect
(16) privatereservel:LONG
```

```
( 20)    privatereserve2:LONG
( 24)    lock:ss (or ARRAY OF ss)
( 70)    gs_head:mlh (or ARRAY OF mlh)
( 82)    privatereserve3:INT
( 84)    privatereserve4:LONG
( 88)    flags:INT
( 90)    fatten_count:CHAR
( 91)    locklayerscount:CHAR
( 92)    privatereserve5:INT
( 94)    blankhook:LONG
( 98)    layerinfo_extra:LONG
(----) ENDOBJECT      /* SIZEOF=102 */
```

```
CONST LAYERIREFRESH=$200,
      LAYERREFRESH=$80,
      ALERTLAYERSNOMEM=$83010000,
      LAYERSMART=2,
      LAYERUPDATING=16,
      LAYERBACKDROP=$40,
      LAYERIREFRESH2=$400,
      LAYER_CLIPRECTS_LOST=$100,
      NEWLAYERINFO_CALLED=1,
      LAYERSIMPLE=1,
      LAYERSUPER=4,
      LAYERS_BACKFILL=0,
      LAYERS_NOBACKFILL=1
```

1.108 modeid.m

```
CONST BIDTAG_DIPFMUSTNOTHAVE=$80000002,
      BIDTAG_DIPFMUSTHAVE=$80000001,
      BIDTAG_GFXPRIVATE=$8000000E,
      BIDTAG_VIEWPORT=$80000003,
      BIDTAG_GREENBITS=$8000000D,
      BIDTAG_BLUEBITS=$8000000C,
      BIDTAG_REDBITS=$8000000B,
      DBLPALEXTRALORESDPF2LACE_KEY=$A1645,
      DBLPALEXTRALORESDPFPLACE_KEY=$A1605,
      DBLPALEXTRALORESEHBLACE_KEY=$A1285,
      DBLPALEXTRALORESHAMLACE_KEY=$A1A05,
      DBLPALEXTRALORESLACE_KEY=$A1205,
      DBLPALEXTRALORESDPF2FF_KEY=$A1644,
      DBLPALEXTRALORESDPF2FFF_KEY=$A1604,
      DBLPALEXTRALORESEHBFF_KEY=$A1284,
      DBLPALEXTRALORESHAMFF_KEY=$A1A04,
      DBLPALEXTRALORESFF_KEY=$A1204,
      DBLPALEXTRALORESDPF2_KEY=$A1640,
      DBLPALEXTRALORESDPF_KEY=$A1600,
      DBLPALEXTRALORESEHB_KEY=$A1280,
      DBLPALEXTRALORESHAM_KEY=$A1A00,
      DBLPALEXTRALORES_KEY=$A1200,
      DBLPALHIRESDPF2LACE_KEY=$A9445,
      DBLPALHIRESDPF2FF_KEY=$A9444,
      DBLPALHIRESDPF2_KEY=$A9440,
      DBLPALHIRESDPFPLACE_KEY=$A9405,
```

DBLPALHIRESDPFFF_KEY=\$A9404,
DBLPALHIRESDPF_KEY=\$A9400,
DBLPALHIRESEHBLACE_KEY=\$A9085,
DBLPALHIRESEHBFF_KEY=\$A9084,
DBLPALHIRESEHB_KEY=\$A9080,
DBLPALHIRESHAMLACE_KEY=\$A9805,
DBLPALHIRESLACE_KEY=\$A9005,
DBLPALHIRESHAMFF_KEY=\$A9804,
DBLPALHIRESHAM_KEY=\$A9800,
DBLPALHIRESFF_KEY=\$A9004,
DBLPALHIRES_KEY=\$A9000,
DBLPALLORESDPF2LACE_KEY=\$A1445,
DBLPALLORESDPF2FF_KEY=\$A1444,
DBLPALLORESDPF2_KEY=\$A1440,
DBLPALLORESDPFLACE_KEY=\$A1405,
DBLPALLORESDPFFF_KEY=\$A1404,
DBLPALLORESDPF_KEY=\$A1400,
DBLPALLORESEHBLACE_KEY=\$A1085,
DBLPALLORESHAMLACE_KEY=\$A1805,
DBLPALLORESLACE_KEY=\$A1005,
DBLPALLORESEHBFF_KEY=\$A1084,
DBLPALLORESEHB_KEY=\$A1080,
DBLPALLORESHAMFF_KEY=\$A1804,
DBLPALLORESHAM_KEY=\$A1800,
DBLPALLORESFF_KEY=\$A1004,
DBLPALLORES_KEY=\$A1000,
DBLNTSCEXTRALORESDPF2LACE_KEY=\$91645,
DBLNTSCEXTRALORESDPFLACE_KEY=\$91605,
DBLNTSCEXTRALORESEHBLACE_KEY=\$91285,
DBLNTSCEXTRALORESHAMLACE_KEY=\$91A05,
DBLNTSCEXTRALORES_LACE_KEY=\$91205,
DBLNTSCEXTRALORES DPFF2FF_KEY=\$91644,
DBLNTSCEXTRALORES DPFFF_KEY=\$91604,
DBLNTSCEXTRALORESEHBFF_KEY=\$91284,
DBLNTSCEXTRALORESHAMFF_KEY=\$91A04,
DBLNTSCEXTRALORESFF_KEY=\$91204,
DBLNTSCEXTRALORES DPF2_KEY=\$91640,
DBLNTSCEXTRALORES DPF_KEY=\$91600,
DBLNTSCEXTRALORESEHB_KEY=\$91280,
DBLNTSCEXTRALORESHAM_KEY=\$91A00,
DBLNTSCEXTRALORES_KEY=\$91200,
DBLNTSCHIRESDPF2LACE_KEY=\$99445,
DBLNTSCHIRESDPF2FF_KEY=\$99444,
DBLNTSCHIRESDPF2_KEY=\$99440,
DBLNTSCHIRESDPFLACE_KEY=\$99405,
DBLNTSCHIRESDPFFF_KEY=\$99404,
DBLNTSCHIRESDPF_KEY=\$99400,
DBLNTSCHIRESEHBLACE_KEY=\$99085,
DBLNTSCHIRESEHBFF_KEY=\$99084,
DBLNTSCHIRESEHB_KEY=\$99080,
DBLNTSCHIRESHAMLACE_KEY=\$99805,
DBLNTSCHIRESLACE_KEY=\$99005,
DBLNTSCHIRESHAMFF_KEY=\$99804,
DBLNTSCHIRESHAM_KEY=\$99800,
DBLNTSCHIRESFF_KEY=\$99004,
DBLNTSCHIRES_KEY=\$99000,
DBLNTSCLORESDPF2LACE_KEY=\$91445,

DBLNTSCLORESDPF2FF_KEY=\$91444,
DBLNTSCLORESDPF2_KEY=\$91440,
DBLNTSCLORESDPFLACE_KEY=\$91405,
DBLNTSCLORESDPFFF_KEY=\$91404,
DBLNTSCLORESDPF_KEY=\$91400,
DBLNTSCLORESEHBLACE_KEY=\$91085,
DBLNTSCLORESHAMLACE_KEY=\$91805,
DBLNTSCLORESLACE_KEY=\$91005,
DBLNTSCLORESEHBFF_KEY=\$91084,
DBLNTSCLORESEHB_KEY=\$91080,
DBLNTSCLORESHAMFF_KEY=\$91804,
DBLNTSCLORESHAM_KEY=\$91800,
DBLNTSCLORESFF_KEY=\$91004,
DBLNTSCLORES_KEY=\$91000,
SUPER72SUPEREHBDBL_KEY=\$890A8,
SUPER72HIRESEHBDBL_KEY=\$89088,
SUPER72LORESEHBDBL_KEY=\$81088,
SUPER72SUPERHAMDBL_KEY=\$89828,
SUPER72HIRESHAMDBL_KEY=\$89808,
SUPER72LORESHAMDBL_KEY=\$81808,
SUPER72SUPERDBL_KEY=\$89028,
SUPER72HIRESDBL_KEY=\$89008,
SUPER72LORESDBL_KEY=\$81008,
EURO72PRODUCTEHBDBL_KEY=\$690A0,
EURO72LORESEHBDBL_KEY=\$69080,
EURO72EXTRALORESEHBDBL_KEY=\$61080,
EURO72PRODUCTHAMDBL_KEY=\$69820,
EURO72LORESHAMDBL_KEY=\$69800,
EURO72EXTRALORESHAMDBL_KEY=\$61800,
EURO72PRODUCTDBL_KEY=\$69020,
EURO72LORESDBL_KEY=\$69000,
EURO72EXTRALORESDBL_KEY=\$61000,
EURO72EHBLACE_KEY=\$690A5,
EURO72EHB_KEY=\$690A4,
EURO72LORESEHBLACE_KEY=\$69085,
EURO72LORESEHB_KEY=\$69084,
EURO72EXTRALORESEHBLACE_KEY=\$61085,
EURO72EXTRALORESEHB_KEY=\$61084,
EURO72EXTRALORESHAMLACE_KEY=\$61805,
EURO72EXTRALORESHAM_KEY=\$61804,
EURO72LORESHAMLACE_KEY=\$69805,
EURO72LORESHAM_KEY=\$69804,
EURO72PRODUCTHAMLACE_KEY=\$69825,
EURO72PRODUCTHAM_KEY=\$69824,
EURO72EXTRAHALFBRITE_LACE_KEY=\$61085,
EURO72EXTRAHALFBRITE_KEY=\$61084,
EURO72PRODUCTLACEDPF2_KEY=\$69465,
EURO72LORESLACEDPF2_KEY=\$69445,
EURO72EXTRALORES_LACEDPF2_KEY=\$61445,
EURO72PRODUCTDPF2_KEY=\$69464,
EURO72LORESDPF2_KEY=\$69444,
EURO72EXTRALORES_LDPF2_KEY=\$61444,
EURO72PRODUCTLACEDPF_KEY=\$69425,
EURO72LORESLACEDPF_KEY=\$69405,
EURO72EXTRALORES_LACEDPF_KEY=\$61405,
EURO72PRODUCTDPF_KEY=\$69424,
EURO72LORESDPF_KEY=\$69404,

EURO72EXTRALORESDFP_KEY=\$61404,
EURO72HAMLACE_KEY=\$61805,
EURO72PRODUCTLACE_KEY=\$69025,
EURO72LORESLACE_KEY=\$69005,
EURO72EXTRALORES_LACE_KEY=\$61005,
EURO72HAM_KEY=\$61804,
EURO72PRODUCT_KEY=\$69024,
EURO72LORES_KEY=\$69004,
EURO72EXTRALORES_KEY=\$61004,
A2024FIFTEENHERTZ_KEY=\$49000,
A2024TENHERTZ_KEY=\$41000,
VGAPRODUCTEHBDBL_KEY=\$390A0,
VGALORESEHBDBL_KEY=\$39080,
VGAEXTRALORESEHBDBL_KEY=\$31080,
VGAPRODUCTHAMDBL_KEY=\$39820,
VGALORESHAMDBL_KEY=\$39800,
VGAEXTRALORESHAMDBL_KEY=\$31800,
VGAPRODUCTDBL_KEY=\$39020,
VGALORESDBL_KEY=\$39000,
VGAEXTRALORESDBL_KEY=\$31000,
VGAEBLACE_KEY=\$390A5,
VGAEB_KEY=\$390A4,
VGALORESEHB_LACE_KEY=\$39085,
VGALORESEHB_KEY=\$39084,
VGAEXTRALORESEHB_LACE_KEY=\$31085,
VGAEXTRALORESEHB_KEY=\$31084,
VGAEXTRALORESHAMLACE_KEY=\$31805,
VGALORESHAMLACE_KEY=\$39805,
VGAPRODUCTHAMLACE_KEY=\$39825,
VGAEXTRALORESHAM_KEY=\$31804,
VGALORESHAM_KEY=\$39804,
VGAPRODUCTHAM_KEY=\$39824,
VGAEXTRAHALFBRITE_LACE_KEY=\$31085,
VGAEXTRAHALFBRITE_KEY=\$31084,
VGAPRODUCTLACEDPF2_KEY=\$39465,
VGALORES_LACEDPF2_KEY=\$39445,
VGAEXTRALORES_LACEDPF2_KEY=\$31445,
VGAPRODUCTDPF2_KEY=\$39464,
VGALORESDFP2_KEY=\$39444,
VGAEXTRALORESDFP2_KEY=\$31444,
VGAPRODUCTLACEDPF_KEY=\$39425,
VGALORES_LACEDPF_KEY=\$39405,
VGAEXTRALORES_LACEDPF_KEY=\$31405,
VGAPRODUCTDPF_KEY=\$39424,
VGALORESDFP_KEY=\$39404,
VGAEXTRALORESDFP_KEY=\$31404,
VGAHAMLACE_KEY=\$31805,
VGAPRODUCTLACE_KEY=\$39025,
VGALORES_LACE_KEY=\$39005,
VGAEXTRALORES_LACE_KEY=\$31005,
VGAHAM_KEY=\$31804,
VGAPRODUCT_KEY=\$39024,
VGALORES_KEY=\$39004,
VGAEXTRALORES_KEY=\$31004,
HIRESHAM_SDBL_KEY=\$8808,
LORESEHB_SDBL_KEY=\$88,
LORESHAM_SDBL_KEY=\$808,

```
LORESSDBL_KEY=8,
SUPEREHBLACE_KEY=$80A4,
HIRESHBLACE_KEY=$8084,
SUPERHAMLACE_KEY=$8824,
HIRESHAMLACE_KEY=$8804,
SUPEREHB_KEY=$80A0,
HIRESHKB_KEY=$8080,
SUPERHAM_KEY=$8820,
HIRESHAM_KEY=$8800,
EXTRAHALFBRITE_KEY=$84,
EXTRAHALFBRITE_KEY=$80,
SUPERLACEDPF2_KEY=$8464,
HIRESLACEDPF2_KEY=$8444,
LORESLACEDPF2_KEY=$444,
SUPERDPF2_KEY=$8460,
HIRESDPF2_KEY=$8440,
LORESDPF2_KEY=$440,
SUPERLACEDPF_KEY=$8424,
HIRESLACEDPF_KEY=$8404,
LORESLACEDPF_KEY=$404,
SUPERDPF_KEY=$8420,
HIRESDPF_KEY=$8400,
LORESDPF_KEY=$400,
HAMLACE_KEY=$804,
SUPERLACE_KEY=$8024,
HIRESLACE_KEY=$8004,
LORESLACE_KEY=4,
HAM_KEY=$800,
SUPER_KEY=$8020,
HIRES_KEY=$8000,
LORES_KEY=0,
MONITOR_ID_MASK=$FFFF1000,
INVALID_ID=-1,
DBLPAL_MONITOR_ID=$A1000,
DBLNTSC_MONITOR_ID=$91000,
SUPER72_MONITOR_ID=$81000,
EURO36_MONITOR_ID=$71000,
EURO72_MONITOR_ID=$61000,
PROTO_MONITOR_ID=$51000,
A2024_MONITOR_ID=$41000,
VGA_MONITOR_ID=$31000,
PAL_MONITOR_ID=$21000,
NTSC_MONITOR_ID=$11000,
DEFAULT_MONITOR_ID=0,
BIDTAG_DESIREDEHEIGHT=$80000007,
BIDTAG_NOMINALHEIGHT=$80000005,
BIDTAG_SOURCEID=$8000000A,
BIDTAG_DEPTH=$80000008,
BIDTAG_DESIREDEWIDTH=$80000006,
BIDTAG_NOMINALWIDTH=$80000004,
BIDTAG_MONITORID=$80000009,
SPECIAL_FLAGS=$100E,
MUST_FLAGS=$100E
```

1.109 monitor.m

```

(----) OBJECT monitorspec
(   0)   xln:xln (or ARRAY OF xln)
(  24)   flags:INT
(  26)   ratioh:LONG
(  30)   ratiov:LONG
(  34)   total_rows:INT
(  36)   total_colorclocks:INT
(  38)   denisemaxdisplaycolumn:INT
(  40)   beamcon0:INT
(  42)   min_row:INT
(  44)   special:PTR TO specialmonitor
(  48)   opencount:INT
(  50)   transform:LONG
(  54)   translate:LONG
(  58)   scale:LONG
(  62)   xoffset:INT
(  64)   yoffset:INT
(  66)   legalview:rectangle (or ARRAY OF rectangle)
(  74)   maxoscan:LONG
(  78)   videoscan:LONG
(  82)   denisemindisplaycolumn:INT
(  84)   displaycompatible:LONG
(  88)   displayinfodatabase:lh (or ARRAY OF lh)
( 102)   didbsemaphore:ss (or ARRAY OF ss)
( 148)   mrgcop:LONG
( 152)   loadview:LONG
( 156)   killview:LONG
(----) ENDOBJECT      /* SIZEOF=160 */

(----) OBJECT specialmonitor
(   0)   xln:xln (or ARRAY OF xln)
(  24)   flags:INT
(  26)   do_monitor:LONG
(  30)   reserved1:LONG
(  34)   reserved2:LONG
(  38)   reserved3:LONG
(  42)   hblank:analogsignalinterval (or ARRAY OF analogsignalinterval)
(  46)   vblank:analogsignalinterval (or ARRAY OF analogsignalinterval)
(  50)   hsync:analogsignalinterval (or ARRAY OF analogsignalinterval)
(  54)   vsync:analogsignalinterval (or ARRAY OF analogsignalinterval)
(----) ENDOBJECT      /* SIZEOF=58 */

(----) OBJECT analogsignalinterval
(   0)   start:INT
(   2)   stop:INT
(----) ENDOBJECT      /* SIZEOF=4 */

CONST STANDARD_VIEW_X=$81,
      STANDARD_VIEW_X=$81,
      STANDARD_VIEW_Y=$2C,
      STANDARD_VIEW_Y=$2C,
      REQUEST_SPECIAL=4,
      MSF_REQUEST_SPECIAL=4,
      MSB_REQUEST_SPECIAL=2,

```

```
REQUEST_A2024=8,
MSF_REQUEST_A2024=8,
MSB_REQUEST_A2024=3,
BROADCAST_BEAMCON=$808,
SPECIAL_BEAMCON=$1B8A,
STANDARD_PAL_BEAMCON=$20,
STANDARD_NTSC_BEAMCON=0,
VGA_TOTAL_ROWS=$83,
STANDARD_PAL_ROWS=$138,
STANDARD_NTSC_ROWS=$106,
MSF_DOUBLE_SPRITES=16,
MSB_DOUBLE_SPRITES=4,
MIN_VGA_ROW=29,
MIN_PAL_ROW=29,
MIN_NTSC_ROW=21,
STANDARD_MONITOR_MASK=3,
BROADCAST_VBSTOP=$1C40,
BROADCAST_VSSTOP=$54C,
BROADCAST_HBSTOP=$27,
BROADCAST_HSSTOP=23,
VGA_VBSTOP=$CCD,
VGA_VSSTOP=$235,
VGA_HBSTOP=30,
VGA_HSSTOP=28,
STANDARD_VBSTOP=$1066,
STANDARD_VSSTOP=$3AA,
STANDARD_HBSTOP=$2C,
STANDARD_HSSTOP=28,
RATIO_FIXEDPART=4,
VGA_DENISE_MIN=$3B,
STANDARD_DENISE_MIN=$5D,
RATIO_UNITY=16,
REQUEST_NTSC=1,
MSF_REQUEST_NTSC=1,
MSB_REQUEST_NTSC=0,
VGA_COLORCLOCKS=$71,
STANDARD_COLORCLOCKS=$E2,
BROADCAST_VSSTRT=$2A6,
BROADCAST_VBSTRT=0,
BROADCAST_HSSTRT=6,
BROADCAST_HBSTRT=1,
VGA_VSSTRT=$153,
VGA_VBSTRT=0,
VGA_HSSTRT=14,
VGA_HBSTRT=8,
STANDARD_VSSTRT=$2A6,
STANDARD_VBSTRT=$122,
STANDARD_HSSTRT=11,
STANDARD_HBSTRT=6,
FROM_MONITOR=1,
TO_MONITOR=0,
STANDARD_YOFFSET=0,
STANDARD_XOFFSET=9,
REQUEST_PAL=2,
MSF_REQUEST_PAL=2,
MSB_REQUEST_PAL=1,
STANDARD_DENISE_MAX=$1C7
```

```
#define VGA_MONITOR_NAME/0
#define PAL_MONITOR_NAME/0
#define NTSC_MONITOR_NAME/0
#define DEFAULT_MONITOR_NAME/0
```

1.110 rastport.m

```
(----) OBJECT areainfo
(  0)   vctrtbl:PTR TO INT
(  4)   vctrptr:PTR TO INT
(  8)   flagtbl:PTR TO CHAR
( 12)   flagptr:PTR TO CHAR
( 16)   count:INT
( 18)   maxcount:INT
( 20)   firstx:INT
( 22)   firsty:INT
(----) ENDOBJECT      /* SIZEOF=24 */

(----) OBJECT rastport
(  0)   layer:PTR TO layer
(  4)   bitmap:PTR TO bitmap
(  8)   areaptrn:PTR TO INT
( 12)   tmpras:PTR TO tmpras
( 16)   areainfo:PTR TO areainfo
( 20)   gelsinfo:PTR TO gelsinfo
( 24)   mask:CHAR
( 25)   fgpen:CHAR
( 26)   bgpen:CHAR
( 27)   aolpen:CHAR
( 28)   drawmode:CHAR
( 29)   areaptsz:CHAR
( 30)   linpatcnt:CHAR
( 31)   dummy:CHAR
( 32)   flags:INT
( 34)   lineptrn:INT
( 36)   cp_x:INT
( 38)   cp_y:INT
( 40)   minterms[8]:ARRAY OF CHAR
( 48)   penwidth:INT
( 50)   penheight:INT
( 52)   font:PTR TO textfont
( 56)   algostyle:CHAR
( 57)   txflags:CHAR
( 58)   txheight:INT
( 60)   txwidth:INT
( 62)   txbaseline:INT
( 64)   txspacing:INT
( 66)   rp_user:PTR TO LONG
( 70)   longreserved[2]:ARRAY OF LONG
( 78)   wordreserved[7]:ARRAY OF INT
( 92)   reserved[8]:ARRAY OF CHAR
(----) ENDOBJECT      /* SIZEOF=100 */

(----) OBJECT gelsinfo
```



```
( 0) sprrsrvd:CHAR
( 1) flags:CHAR
( 2) gelhead:PTR TO vs
( 6) geltail:PTR TO vs
(10) nextline:PTR TO INT
(14) lastcolor:PTR TO LONG
(18) collhandler:PTR TO colltable
(22) leftmost:INT
(24) rightmost:INT
(26) topmost:INT
(28) bottommost:INT
(30) firstblissobj:LONG
(34) lastblissobj:LONG
(----) ENDOBJECT      /* SIZEOF=38 */
```

```
(----) OBJECT tmpras
( 0) rasptra:PTR TO CHAR
( 4) size:LONG
(----) ENDOBJECT      /* SIZEOF=8 */
```

```
CONST RP_AOLPEN=27,
      RPF_DBUFFER=4,
      RP_LINPATCNT=30,
      FRST_DOT=1,
      ONE_DOT=2,
      RPF_ONE_DOT=2,
      RPF_FRST_DOT=1,
      RP_MASK=24,
      RP_INVERSVID=4,
      RP_LINEPTRN=$22,
      RP_AREAPTRN=8,
      RP_COMPLEMENT=2,
      RP_AREAPTSZ=29,
      FRST_DOTN=0,
      ONE_DOTN=1,
      RP_JAM1=0,
      RP_JAM2=1,
      RPF_AREAOUTLINE=8,
      RPF_NOCROSSFILL=$20,
      RPF_TXSCALE=1,
      RP_FLAGS=$20
```

1.111 regions.m

```
(----) OBJECT regionrectangle
( 0) next:PTR TO regionrectangle
( 4) prev:PTR TO regionrectangle
( 8) bounds:rectangle (or ARRAY OF rectangle)
(----) ENDOBJECT      /* SIZEOF=16 */

(----) OBJECT region
( 0) bounds:rectangle (or ARRAY OF rectangle)
( 8) regionrectangle:PTR TO regionrectangle
(----) ENDOBJECT      /* SIZEOF=12 */
```

1.112 rpatrr.m

```

CONST RPTAG_FONT=$800000000,
      RPTAG_APEN=$800000002,
      RPTAG_DRMD=$800000004,
      RPTAG_WRITEMASK=$800000006,
      RPTAG_BPEN=$800000003,
      RPTAG_OUTLINEPEN=$800000005,
      RPTAG_DRAWBOUNDS=$800000008,
      RPTAG_MAXPEN=$800000007

```

1.113 scale.m

```

(----) OBJECT bitscaleargs
(  0)  srcx:INT
(  2)  srcy:INT
(  4)  srcwidth:INT
(  6)  srcheight:INT
(  8)  xsrcfactor:INT
( 10)  ysrcfactor:INT
( 12)  destx:INT
( 14)  desty:INT
( 16)  destwidth:INT
( 18)  destheight:INT
( 20)  xdestfactor:INT
( 22)  ydestfactor:INT
( 24)  srcbitmap:PTR TO bitmap
( 28)  destbitmap:PTR TO bitmap
( 32)  flags:LONG
( 36)  xdda:INT
( 38)  ydda:INT
( 40)  reserved1:LONG
( 44)  reserved2:LONG
(----) ENDOBJECT      /* SIZEOF=48 */

```

1.114 sprite.m

```

(----) OBJECT extsprite
(  0)  simplesprite:simplesprite (or ARRAY OF simplesprite)
( 12)  wordwidth:INT
( 14)  flags:INT
(----) ENDOBJECT      /* SIZEOF=16 */

(----) OBJECT simplesprite
(  0)  posctldata:PTR TO INT
(  4)  height:INT
(  6)  x:INT
(  8)  y:INT
( 10)  num:INT
(----) ENDOBJECT      /* SIZEOF=12 */

```

```

CONST GSTAG_SOFTSPRITE=$820000024,

```

```

GSTAG_ATTACHED=$82000022,
SPRITEA_ATTACHED=$81000008,
SPRITEA_OLDATAFORMAT=$8100000A,
GSTAG_SCANDOUBLED=$83000000,
SPRITEA_YREPLICATION=$81000004,
SPRITEA_XREPLICATION=$81000002,
GSTAG_SPRITE_NUM=$82000020,
SPRITEA_OUTPUTHEIGHT=$81000006,
SPRITEA_WIDTH=$81000000

```

1.115 text.m

```

(----) OBJECT textextent
( 0) width:INT
( 2) height:INT
( 4) extent:rectangle (or ARRAY OF rectangle)
(----) ENDOBJECT /* SIZEOF=12 */

(----) OBJECT colortextfont
( 0) textfont:textfont (or ARRAY OF textfont)
( 52) flags:INT
( 54) depth:CHAR
( 55) fgcolor:CHAR
( 56) low:CHAR
( 57) high:CHAR
( 58) planepick:CHAR
( 59) planeonoff:CHAR
( 60) colorfontcolors:PTR TO colorfontcolors
( 64) chardata[8]:ARRAY OF LONG
(----) ENDOBJECT /* SIZEOF=96 */

(----) OBJECT colorfontcolors
( 0) reserved:INT
( 2) count:INT
( 4) colortable:PTR TO INT
(----) ENDOBJECT /* SIZEOF=8 */

(----) OBJECT textfontextension
( 0) matchword:INT
( 2) flags0:CHAR
( 3) flags1:CHAR
( 4) backptr:PTR TO textfont
( 8) origreplyport:PTR TO mp
( 12) tags:PTR TO tagitem
( 16) ofontpatchs:PTR TO INT
( 20) ofontpatchk:PTR TO INT
(----) ENDOBJECT /* SIZEOF=24 */

(----) OBJECT textfont
( 0) mn:mn (or ARRAY OF mn)
( 20) ysize:INT
( 22) style:CHAR
( 23) flags:CHAR
( 24) xsize:INT
( 26) baseline:INT

```

```
( 28)  boldsmear:INT
( 30)  accessors:INT
( 32)  lochar:CHAR
( 33)  hichar:CHAR
( 34)  chardata:PTR TO CHAR
( 38)  modulo:INT
( 40)  charloc:PTR TO INT
( 44)  charspace:PTR TO INT
( 48)  charkern:PTR TO INT
(----) ENDOBJECT      /* SIZEOF=52 */

(----) OBJECT ttextattr
(  0)  name:LONG
(  4)  ysize:INT
(  6)  style:CHAR
(  7)  flags:CHAR
(  8)  tags:PTR TO tagitem
(----) ENDOBJECT      /* SIZEOF=12 */

(----) OBJECT textattr
(  0)  name:LONG
(  4)  ysize:INT
(  6)  style:CHAR
(  7)  flags:CHAR
(----) ENDOBJECT      /* SIZEOF=8 */

CONST CT_GREYFONT=2,
      CT_COLORFONT=1,
      TEOF_NOEMFONT=1,
      TEOB_NOEMFONT=0,
      FPF_DISKFONT=2,
      FPB_DISKFONT=1,
      FPF_ROMFONT=1,
      FPB_ROMFONT=0,
      FSF_COLORFONT=$40,
      FSB_COLORFONT=6,
      FPF_TALLDOT=8,
      FPB_TALLDOT=3,
      FSF_ITALIC=4,
      FSB_ITALIC=2,
      FPF_PROPORTIONAL=$20,
      FPB_PROPORTIONAL=5,
      FS_NORMAL=0,
      FSF_BOLD=2,
      FSB_BOLD=1,
      FSF_EXTENDED=8,
      FSB_EXTENDED=3,
      CT_ANTIALIAS=4,
      CT_COLORMASK=15,
      FPF_REMOVED=$80,
      FPB_REMOVED=7,
      FSF_UNDERLINED=1,
      FSB_UNDERLINED=0,
      CTF_MAPCOLOR=1,
      CTB_MAPCOLOR=0,
      FPF_REVPATH=4,
      FPB_REVPATH=2,
```

```
FSF_TAGGED=$80,  
FSB_TAGGED=7,  
FPF_DESIGNED=$40,  
FPB_DESIGNED=6,  
MAXFONTMATCHWEIGHT=$7FFF,  
FPF_WIDEDOT=16,  
FPB_WIDEDOT=4,  
TA_DEVICEDPI=$80000001
```

1.116 videocontrol.m

```
CONST VC_NOCOLORPALETTELOAD=$80000082,  
VC_INTERMEDIATECLUPDATE=$80000080,  
VTAG_IMMEDIATE=$80000037,  
VTAG_DEFSPRITERESN_GET=$8000003C,  
VTAG_FULLPALETTE_GET=$80000039,  
VTAG_PF2_TO_SPRITEPRI_GET=$80000036,  
VTAG_PF1_TO_SPRITEPRI_GET=$80000034,  
VTAG_SPRITERESN_GET=$80000032,  
VTAG_BORDERSPRITE_GET=$8000002E,  
VTAG_SPODD_BASE_GET=$80000029,  
VTAG_SPEVEN_BASE_GET=$80000028,  
VTAG_PF2_BASE_GET=$80000027,  
VTAG_PF1_BASE_GET=$80000026,  
VTAG_USERCLIP_GET=$80000023,  
VTAG_VPMODEID_GET=$80000020,  
VTAG_BATCH_ITEMS_GET=$8000001D,  
VTAG_BATCH_CM_GET=$8000001C,  
VTAG_ATTACH_CM_GET=$8000001B,  
VTAG_CHROMA_PLANE_GET=$8000001A,  
VTAG_CHROMA_PEN_GET=$80000019,  
VTAG_BORDERNOTRANS_GET=$80000018,  
VTAG_BORDERBLANK_GET=$80000017,  
VTAG_BITPLANEKEY_GET=$80000016,  
VTAG_CHROMAKEY_GET=$80000015,  
VTAG_VIEWPORTEXTRA_GET=$80000013,  
VTAG_COERCE_DISP_GET=$80000011,  
VTAG_NORMAL_DISP_GET=$8000000F,  
VC_DUALPF_DISABLE=$80000084,  
VC_DUALPF_DISABLE_QUERY=$80000085,  
VC_NOCOLORPALETTELOAD_QUERY=$80000083,  
VC_INTERMEDIATECLUPDATE_QUERY=$80000081,  
VTAG_NEXTBUF_CM=$8000000C,  
VTAG_FULLPALETTE_CLR=$8000003A,  
VTAG_BORDERSPRITE_CLR=$80000030,  
VTAG_USERCLIP_CLR=$80000025,  
VTAG_VPMODEID_CLR=$80000022,  
VTAG_BATCH_CM_CLR=$8000000D,  
VTAG_CHROMA_PEN_CLR=$80000008,  
VTAG_BORDERNOTRANS_CLR=$80000006,  
VTAG_BORDERBLANK_CLR=$80000004,  
VTAG_BITPLANEKEY_CLR=$80000002,  
VTAG_CHROMAKEY_CLR=$80000000,  
VTAG_DEFSPRITERESN_SET=$8000003B,  
VTAG_FULLPALETTE_SET=$80000038,
```

```

VTAG_PF2_TO_SPRITEPRI_SET=$80000035,
VTAG_PF1_TO_SPRITEPRI_SET=$80000033,
VTAG_SPRITERESN_SET=$80000031,
VTAG_BORDERSPRITE_SET=$8000002F,
VTAG_SPODD_BASE_SET=$8000002D,
VTAG_SPEVEN_BASE_SET=$8000002C,
VTAG_PF2_BASE_SET=$8000002B,
VTAG_PF1_BASE_SET=$8000002A,
VTAG_USERCLIP_SET=$80000024,
VTAG_VPMODEID_SET=$80000021,
VTAG_BATCH_ITEMS_SET=$8000001E,
VTAG_VIEWPORTEXTRA_SET=$80000014,
VTAG_COERCE_DISP_SET=$80000012,
VTAG_NORMAL_DISP_SET=$80000010,
VTAG_BATCH_CM_SET=$8000000E,
VTAG_ATTACH_CM_SET=$8000000B,
VTAG_CHROMA_PLANE_SET=$8000000A,
VTAG_CHROMA_PEN_SET=$80000009,
VTAG_BORDERNOTRANS_SET=$80000007,
VTAG_BORDERBLANK_SET=$80000005,
VTAG_BITPLANEKEY_SET=$80000003,
VTAG_CHROMAKEY_SET=$80000001,
VTAG_BATCH_ITEMS_ADD=$8000001F,
VTAG_END_CM=0

```

1.117 view.m

```

(----) OBJECT dbufinfo
( 0) link1:LONG
( 4) count1:LONG
( 8) safemessage:mn (or ARRAY OF mn)
(28) userdata1:LONG
(32) link2:LONG
(36) count2:LONG
(40) dispmessage:mn (or ARRAY OF mn)
(60) userdata2:LONG
(64) matchlong:LONG
(68) copptr1:LONG
(72) copptr2:LONG
(76) copptr3:LONG
(80) beampos1:INT
(82) beampos2:INT
(----) ENDOBJECT /* SIZEOF=84 */

(----) OBJECT rasinfo
( 0) next:PTR TO rasinfo
( 4) bitmap:PTR TO bitmap
( 8) rxoffset:INT
(10) ryoffset:INT
(----) ENDOBJECT /* SIZEOF=12 */

(----) OBJECT viewportextra
( 0) xln:xln (or ARRAY OF xln)
(24) viewport:PTR TO viewport
(28) displayclip:rectangle (or ARRAY OF rectangle)

```

```
( 36) vectable:LONG
( 40) driverdata[2]:ARRAY OF LONG
( 48) flags:INT
( 50) origin:tpoint (or ARRAY OF tpoint)
( 58) cop1ptr:LONG
( 62) cop2ptr:LONG
(----) ENDOBJECT      /* SIZEOF=66 */

(----) OBJECT viewextra
(  0) xln:xln (or ARRAY OF xln)
( 24) view:PTR TO view
( 28) monitor:PTR TO monitorspec
( 32) topline:INT
(----) ENDOBJECT      /* SIZEOF=34 */

(----) OBJECT view
(  0) viewport:PTR TO viewport
(  4) lofcprlist:PTR TO cprlist
(  8) shfcprlist:PTR TO cprlist
( 12) dyoffset:INT
( 14) dxoffset:INT
( 16) modes:INT
(----) ENDOBJECT      /* SIZEOF=18 */

(----) OBJECT viewport
(  0) next:PTR TO viewport
(  4) colormap:PTR TO colormap
(  8) dspins:PTR TO coplist
( 12) sprins:PTR TO coplist
( 16) clrins:PTR TO coplist
( 20) ucopins:PTR TO ucoplist
( 24) dwidth:INT
( 26) dheight:INT
( 28) dxoffset:INT
( 30) dyoffset:INT
( 32) modes:INT
( 34) spritepriorities:CHAR
( 35) extendedmodes:CHAR
( 36) rasinfo:PTR TO rasinfo
(----) ENDOBJECT      /* SIZEOF=40 */

(----) OBJECT paletteextra
(  0) semaphore:ss (or ARRAY OF ss)
( 46) firstfree:INT
( 48) nfree:INT
( 50) firstshared:INT
( 52) nshared:INT
( 54) refcnt:LONG
( 58) alloclist:LONG
( 62) viewport:PTR TO viewport
( 66) sharablecolors:INT
(----) ENDOBJECT      /* SIZEOF=68 */

(----) OBJECT colormap
(  0) flags:CHAR
(  1) type:CHAR
(  2) count:INT
```

```
( 4)   colortable:LONG
( 8)   vpe:PTR TO viewportextra
(12)   lowcolorbits:LONG
(16)   transparencyplane:CHAR
(17)   spriteresolution:CHAR
(18)   spriteresdefault:CHAR
(19)   auxflags:CHAR
(20)   vp:PTR TO viewport
(24)   normaldisplayinfo:LONG
(28)   coercedisplayinfo:LONG
(32)   batch_items:PTR TO tagitem
(36)   vpmodeid:LONG
(40)   palextra:PTR TO paletteextra
(44)   spritebase_even:INT
(46)   spritebase_odd:INT
(48)   bp_0_base:INT
(50)   bp_1_base:INT
(----) ENDOBJECT      /* SIZEOF=52 */
```

```
CONST CMAB_NO_COLOR_LOAD=2,
      CMAF_NO_COLOR_LOAD=4,
      COLORMAP_TYPE_V36=1,
      COLORMAP_TYPE_V39=2,
      V_EXTRA_HALFBRITE=$80,
      VPB_A2024=6,
      VPF_A2024=$40,
      BORDER_BLANKING=4,
      MVP_NO_DISPLAY=4,
      PRECISION_ICON=16,
      COLORMAP_TYPE_V1_2=0,
      COLORMAP_TYPE_V1_4=1,
      VPB_TENHZ=4,
      VPF_TENHZ=16,
      MCOP_NO_MEM=1,
      MVP_NO_MEM=1,
      CMAB_NO_INTERMED_UPDATE=1,
      CMAF_NO_INTERMED_UPDATE=2,
      SPRITERESN_70NS=2,
      V_HAM=$800,
      CM_TRANSPARENYPLANE=16,
      V_PFBA=$40,
      BORDER_SPRITES=$40,
      V_SPRITES=$4000,
      MVP_NO_VPE=2,
      PRECISION_IMAGE=0,
      V_VP_HIDE=$2000,
      CMAB_DUALPF_DISABLE=8,
      CMAF_DUALPF_DISABLE=3,
      EXTEND_VSTRUCT=$1000,
      CMB_BRDNTRAN=3,
      CMF_BRDNTRAN=8,
      GENLOCK_AUDIO=$100,
      SPRITERESN_DEFAULT=-1,
      PRECISION_GUI=$20,
      VPXF_STRADDLES_256=16,
      VPXB_STRADDLES_256=4,
      PENB_NO_SETCOLOR=1,
```



```
PENF_NO_SETCOLOR=2,  
PEN_NO_SETCOLOR=2,  
V_DUALPF=$400,  
V_LACE=4,  
SPRITERESN_35NS=3,  
PRECISION_EXACT=-1,  
PENB_EXCLUSIVE=0,  
PENF_EXCLUSIVE=1,  
PEN_EXCLUSIVE=1,  
MVP_NO_DSPINS=3,  
CMAB_FULLPALETTE=0,  
CMAF_FULLPALETTE=1,  
CMB_BRDRBLNK=2,  
CMF_BRDRBLNK=4,  
V_EXTENDED_MODE=$1000,  
MVP_OFF_BOTTOM=5,  
VIDEOCONTROL_BATCH=16,  
SPRITERESN_ECS=0,  
CMB_CPTRANS=1,  
CMB_CMTRANS=0,  
CMF_CPTRANS=2,  
CMF_CMTRANS=1,  
BORDER_NOTTRANSPARENCY=8,  
COLORPLANE_TRANSPARENCY=2,  
COLORMAP_TRANSPARENCY=1,  
OBP_FAILIFBAD=$84000001,  
GENLOCK_VIDEO=2,  
V_HIRES=$8000,  
V_SUPERHIRES=$20,  
V_DOUBLESCAN=8,  
VPXF_STRADDLES_512=$20,  
VPXB_STRADDLES_512=5,  
VPXF_FREE_ME=1,  
VPXB_FREE_ME=0,  
VPXF_VP_LAST=2,  
VPXB_VP_LAST=1,  
CMB_BRDRSPRT=6,  
CMF_BRDRSPRT=$40,  
USER_COPPER_CLIP=$20,  
OBP_PRECISION=$84000000,  
MCOP_NOP=2,  
MCOP_OK=0,  
MVP_OK=0,  
SPRITERESN_140NS=1
```

1.118 hardware

adkbits.m	blit.m
cia.m	custom.m
dmabits.m	intbits.m

1.119 adkbits.m

```

CONST ADKF_FAST=$100,
      ADKB_FAST=8,
      ADKF_USE2P3=$40,
      ADKB_USE2P3=6,
      ADKF_MFMPREC=$1000,
      ADKB_MFMPREC=12,
      ADKF_USE0V1=1,
      ADKB_USE0V1=0,
      ADKF_MSBSYNC=$200,
      ADKF_WORDSYNC=$400,
      ADKB_MSBSYNC=9,
      ADKB_WORDSYNC=10,
      ADKF_USE1V2=2,
      ADKB_USE1V2=1,
      ADKF_UARTBRK=$800,
      ADKB_UARTBRK=11,
      ADKF_PRE000NS=0,
      ADKF_USE3PN=$80,
      ADKB_USE3PN=7,
      ADKF_USE2V3=4,
      ADKB_USE2V3=2,
      ADKF_USE0P1=16,
      ADKB_USE0P1=4,
      ADKF_PRE280NS=$4000,
      ADKF_PRE560NS=$6000,
      ADKF_USE1P2=$20,
      ADKB_USE1P2=5,
      ADKF_USE3VN=8,
      ADKB_USE3VN=3,
      ADKF_SETCLR=$8000,
      ADKB_SETCLR=15,
      ADKF_PRECOMP0=$2000,
      ADKB_PRECOMP0=13,
      ADKF_PRECOMP1=$4000,
      ADKB_PRECOMP1=14,
      ADKF_PRE140NS=$2000

```

1.120 blit.m

```

(----) OBJECT bltnode
(  0)   n:PTR TO bltnode
(  4)   function:LONG
(  8)   stat:CHAR
(  9)   dummy:CHAR
( 10)   blitsize:INT
( 12)   beamsync:INT
( 14)   cleanup:LONG
(----) ENDOBJECT      /* SIZEOF=18 */

CONST DEST=$100,
      BC0F_DEST=$100,
      BC0B_DEST=8,
      SRCA=$800,
      BC0F_SRCA=$800,

```

```
BC0B_SRCA=11,  
SRCB=$400,  
BC0F_SRCB=$400,  
BC0B_SRCB=10,  
SRCC=$200,  
BC0F_SRCC=$200,  
BC0B_SRCC=9,  
VSIZEBITS=10,  
HSIZEBITS=6,  
BLITREVERSE=2,  
ABC=$80,  
OCTANT1=16,  
OCTANT2=0,  
OCTANT3=8,  
OCTANT4=20,  
OCTANT5=28,  
OCTANT6=12,  
OCTANT7=4,  
OCTANT8=24,  
NANBNC=1,  
ANBNC=16,  
VSIZEMASK=$3FF,  
HSIZEMASK=$3F,  
NABC=8,  
FILL_OR=8,  
A_OR_B=$FC,  
A_XOR_C=$5A,  
A_OR_C=$FA,  
A_TO_D=$F0,  
CLEANUP=$40,  
SUD=16,  
MAXBYTESPERROW=$1000,  
MINBYTESPERROW=$80,  
MAXBYTESPERROW=$1000,  
SUL=8,  
NABNC=4,  
ABNC=$40,  
FILL_XOR=16,  
SIGNFLAG=$40,  
OVFLAG=$20,  
BSHIFTSHIFT=12,  
ASHIFTSHIFT=12,  
CLEANME=$40,  
AUL=4,  
LINEMODE=1,  
FILL_CARRYIN=4,  
ONEDOT=2,  
CLEANMEN=6,  
NANBC=2,  
ANBC=$20,  
BC1F_DESC=2
```

1.121 cia.m

```
(----) OBJECT cia
(   0)   ciapra:CHAR
(   1)   pad0a:CHAR
(   2)   pad0b[254]:ARRAY OF CHAR
( 256)   ciaprb:CHAR
( 257)   pad1a:CHAR
( 258)   pad1b[254]:ARRAY OF CHAR
( 512)   ciaddra:CHAR
( 513)   pad2a:CHAR
( 514)   pad2b[254]:ARRAY OF CHAR
( 768)   ciaddrb:CHAR
( 769)   pad3a:CHAR
( 770)   pad3b[254]:ARRAY OF CHAR
(1024)   ciatalo:CHAR
(1025)   pad4a:CHAR
(1026)   pad4b[254]:ARRAY OF CHAR
(1280)   ciatahi:CHAR
(1281)   pad5a:CHAR
(1282)   pad5b[254]:ARRAY OF CHAR
(1536)   ciatblo:CHAR
(1537)   pad6a:CHAR
(1538)   pad6b[254]:ARRAY OF CHAR
(1792)   ciatbhi:CHAR
(1793)   pad7a:CHAR
(1794)   pad7b[254]:ARRAY OF CHAR
(2048)   ciatodlow:CHAR
(2049)   pad8a:CHAR
(2050)   pad8b[254]:ARRAY OF CHAR
(2304)   ciatodmid:CHAR
(2305)   pad9a:CHAR
(2306)   pad9b[254]:ARRAY OF CHAR
(2560)   ciatodhi:CHAR
(2561)   pad10a:CHAR
(2562)   pad10b[254]:ARRAY OF CHAR
(2816)   unusedreg:CHAR
(2817)   pad11a:CHAR
(2818)   pad11b[254]:ARRAY OF CHAR
(3072)   ciasdr:CHAR
(3073)   pad12a:CHAR
(3074)   pad12b[254]:ARRAY OF CHAR
(3328)   ciaicr:CHAR
(3329)   pad13a:CHAR
(3330)   pad13b[254]:ARRAY OF CHAR
(3584)   ciacra:CHAR
(3585)   pad14a:CHAR
(3586)   pad14b[254]:ARRAY OF CHAR
(3840)   ciacrb:CHAR
(----) ENDOBJECT      /* SIZEOF=3842 */
```

```
CONST CIAF_COMCD=$20,
      CIAB_COMCD=5,
      CIAICRF_TA=1,
      CIAPRA=0,
      CIAF_DSKRDY=$20,
      CIAB_DSKRDY=5,
      CIAICRF_TB=2,
```

```
CIAPRB=$100,
CIAF_COMRTS=$40,
CIAB_COMRTS=6,
CIAF_COMDTR=$80,
CIAB_COMDTR=7,
CIACRBF_LOAD=16,
CIACRAF_LOAD=16,
CIACRBB_LOAD=4,
CIACRAB_LOAD=4,
CIAF_PRTRSEL=4,
CIAB_PRTRSEL=2,
CIACRBF_IN_PHI2=0,
CIACRBF_START=1,
CIACRAF_START=1,
CIACRBB_START=0,
CIACRAB_START=0,
CIACRBF_IN_CNT_TA=$60,
CIACRBF_PBON=2,
CIACRAF_PBON=2,
CIACRBB_PBON=1,
CIACRAB_PBON=1,
CIACRA=$E00,
CIACRB=$F00,
CIAICRF_IR=$80,
CIAF_PRTRPOUT=2,
CIAB_PRTRPOUT=1,
CIAF_DSKSIDE=4,
CIAB_DSKSIDE=2,
CIATAHI=$500,
CIAF_DSKCHANGE=4,
CIAB_DSKCHANGE=2,
CIAICRB_SP=3,
CIAICRB_TA=0,
CIAICRB_TB=1,
CIAICRF_FLG=16,
CIAICRB_FLG=4,
CIATALO=$400,
CIAICR=$D00,
CIAB_ADDR=$BFD000,
CIAA_ADDR=$BFE001,
CIATODMID=$900,
CIATBHI=$700,
CIACRBF_INMODE0=$20,
CIACRBB_INMODE0=5,
CIACRBF_INMODE1=$40,
CIACRBB_INMODE1=6,
CIAICRB_IR=7,
CIAF_DSKTRACK0=16,
CIAB_DSKTRACK0=4,
CIATODLOW=$800,
CIATBLO=$600,
CIASDR=$C00,
CIAF_DSKPROT=8,
CIAB_DSKPROT=3,
CIAF_DSKMOTOR=$80,
CIAF_PRTRBUSY=1,
CIAB_DSKMOTOR=7,
```

```
CIAB_PRTRBUSY=0,
CIAF_GAMEPORT0=$40,
CIAB_GAMEPORT0=6,
CIAF_GAMEPORT1=$80,
CIAB_GAMEPORT1=7,
CIADDRA=$200,
CIACRBF_RUNMODE=8,
CIACRBF_OUTMODE=4,
CIACRAF_SPMODE=$40,
CIACRAF_INMODE=$20,
CIACRAF_RUNMODE=8,
CIACRAF_OUTMODE=4,
CIACRBB_RUNMODE=3,
CIACRBB_OUTMODE=2,
CIACRAB_SPMODE=6,
CIACRAB_INMODE=5,
CIACRAB_RUNMODE=3,
CIACRAB_OUTMODE=2,
CIADDRB=$300,
CIACRBF_IN_TA=$40,
CIAF_DSKDIREC=2,
CIAB_DSKDIREC=1,
CIAF_DSKSTEP=1,
CIAB_DSKSTEP=0,
CIAICRF_ALRM=4,
CIAICRB_ALRM=2,
CIACRBF_ALARM=$80,
CIACRBB_ALARM=7,
CIAF_COMCTS=16,
CIAB_COMCTS=4,
CIAICRF_SETCLR=$80,
CIAICRB_SETCLR=7,
CIATODHI=$A00,
CIAF_LED=2,
CIAB_LED=1,
CIAF_DSKSEL0=8,
CIAB_DSKSEL0=3,
CIAF_DSKSEL1=16,
CIAF_COMDSR=8,
CIAB_DSKSEL1=4,
CIAB_COMDSR=3,
CIAF_DSKSEL2=$20,
CIAB_DSKSEL2=5,
CIAF_DSKSEL3=$40,
CIAB_DSKSEL3=6,
CIAF_OVERLAY=1,
CIAB_OVERLAY=0,
CIACRBF_IN_CNT=$20,
CIACRAF_TODIN=$80,
CIAICRF_SP=8,
CIACRAB_TODIN=7
```

1.122 custom.m

```
(----) OBJECT custom
(  0)  bltddat:INT
(  2)  dmaconr:INT
(  4)  vposr:INT
(  6)  vhposr:INT
(  8)  dskdatr:INT
( 10)  joy0dat:INT
( 12)  joyl1dat:INT
( 14)  clxdat:INT
( 16)  adkconr:INT
( 18)  pot0dat:INT
( 20)  potl1dat:INT
( 22)  potinp:INT
( 24)  serdatr:INT
( 26)  dskbytr:INT
( 28)  intenar:INT
( 30)  intregr:INT
( 32)  dskpt:LONG
( 36)  dsklen:INT
( 38)  dskdat:INT
( 40)  refptr:INT
( 42)  vposw:INT
( 44)  vhposw:INT
( 46)  copcon:INT
( 48)  serdat:INT
( 50)  serper:INT
( 52)  potgo:INT
( 54)  joytest:INT
( 56)  strequ:INT
( 58)  strvbl:INT
( 60)  strhor:INT
( 62)  strlong:INT
( 64)  bltcon0:INT
( 66)  bltcon1:INT
( 68)  bltafwm:INT
( 70)  bltalwm:INT
( 72)  bltcpt:LONG
( 76)  bltbpt:LONG
( 80)  bltapt:LONG
( 84)  bltdpt:LONG
( 88)  bltsize:INT
( 90)  pad2d:CHAR
( 91)  bltcon0l:CHAR
( 92)  bltsizv:INT
( 94)  bltsizh:INT
( 96)  bltcm0d:INT
( 98)  bltbm0d:INT
(100)  bltam0d:INT
(102)  bltdm0d:INT
(104)  pad34[4]:ARRAY OF INT
(112)  bltcdat:INT
(114)  bltbdat:INT
(116)  bltadat:INT
(118)  pad3b[3]:ARRAY OF INT
(124)  deniseid:INT
(126)  dsksync:INT
```

```

( 128)    cop1lc:LONG
( 132)    cop2lc:LONG
( 136)    copjmp1:INT
( 138)    copjmp2:INT
( 140)    copins:INT
( 142)    diwstrt:INT
( 144)    diwstop:INT
( 146)    ddfstrt:INT
( 148)    ddfstop:INT
( 150)    dmacon:INT
( 152)    clxcon:INT
( 154)    intena:INT
( 156)    intreq:INT
( 158)    adkcon:INT
( 160)    aud:audchannel (or ARRAY OF audchannel)
( 224)    bplpt[8]:ARRAY OF LONG
( 256)    bplcon0:INT
( 258)    bplcon1:INT
( 260)    bplcon2:INT
( 262)    bplcon3:INT
( 264)    bpllmod:INT
( 266)    bpl2mod:INT
( 268)    bplcon4:INT
( 270)    clxcon2:INT
( 272)    bpldat[8]:ARRAY OF INT
( 288)    sprpt[8]:ARRAY OF LONG
( 320)    spr:spritedef (or ARRAY OF spritedef)
( 384)    color[32]:ARRAY OF INT
( 448)    htotal:INT
( 450)    hsstop:INT
( 452)    hbstrt:INT
( 454)    hbstop:INT
( 456)    vtotal:INT
( 458)    vsstop:INT
( 460)    vbstrt:INT
( 462)    vbstop:INT
( 464)    sprhstrt:INT
( 466)    sprhstop:INT
( 468)    bplhstrt:INT
( 470)    bplhstop:INT
( 472)    hhposw:INT
( 474)    hhposr:INT
( 476)    beamcon0:INT
( 478)    hsstrt:INT
( 480)    vsstrt:INT
( 482)    hcenter:INT
( 484)    diwhigh:INT
( 486)    padf3[11]:ARRAY OF INT
( 508)    fmode:INT
(----) ENDOBJECT      /* SIZEOF=510 */

(----) OBJECT spritedef
(   0)    pos:INT
(   2)    ctl:INT
(   4)    dataa:INT
(   6)    datab:INT
(----) ENDOBJECT      /* SIZEOF=8 */

```

```
(----) OBJECT audchannel
( 0) ptr:PTR TO INT
( 4) len:INT
( 6) per:INT
( 8) vol:INT
(10) dat:INT
(12) pad[2]:ARRAY OF INT
(----) ENDOBJECT      /* SIZEOF=16 */
```

```
CONST BLTSIZV=$5C,
      JOYTEST=$36,
      DISPLAYPAL=$20,
      AC_VOL=8,
      BLTCDAT=$70,
      DISPLAYDUAL=$40,
      INTREQR=30,
      BPLCON3_EXTBLKZD=2,
      STREQU=$38,
      HHPOSR=$1DA,
      VHPOSR=6,
      VPOSR=4,
      CLXDAT=14,
      HHPOSW=$1D8,
      VHPOSW=$2C,
      VPOSW=$2A,
      SPR=$140,
      BLTALWM=$46,
      BPLDAT=$110,
      BLTBPT=$4C,
      DSKSYNC=$7E,
      VARCSYNC=16,
      VARHSYNC=$100,
      VARVSYNC=$200,
      BLTADAT=$74,
      POT1DAT=20,
      JOY1DAT=12,
      BPLPT=$E0,
      POTGO=$34,
      AC_PER=6,
      SERDATR=24,
      DSKDATR=8,
      CSBLANK=8,
      VARVBLANK=$1000,
      DSKPT=$20,
      REFPTR=$28,
      POTINP=22,
      BLTAFWM=$44,
      BPLHSTOP=$1D6,
      SPRHSTOP=$1D2,
      VBSTOP=$1CE,
      VSSTOP=$1CA,
      HBSTOP=$1C6,
      HSSTOP=$1C2,
      DDFSTOP=$94,
      DIWSTOP=$90,
      COP1LC=$80,
```

```
BLTCMOD=$60,
STRHOR=$3C,
DSKDAT=$26,
INTENA=$9A,
BLTCPT=$48,
AC_PTR=0,
AC_DAT=10,
COPJMP1=$88,
COPJMP2=$8A,
COPCON=$2E,
BPLCON3_BRDNTRAN=16,
CUSTOMADDR=$DFF000,
BLTDDAT=0,
BPLCON2_ZDBPEN=$800,
SERPER=$32,
BPL1MOD=$108,
BLTAMOD=$64,
COP2LC=$84,
STRVBL=$3A,
COLOR=$180,
SD_DATAA=4,
DSKBYTR=26,
SD_DATAB=6,
DIWHIGH=$1E4,
BEAMCON0=$1DC,
BPLCON0=$100,
BLTCON0=$40,
INTENAR=28,
SD_CTL=2,
BPLCON1=$102,
BLTCON1=$42,
CLXCON2=$10E,
BPLCON2=$104,
BPLCON3=$106,
BLTDPT=$54,
USE_BPLCON3=1,
BPLCON4=$10C,
AUD=$A0,
BLTBDAT=$72,
SERDAT=$30,
COPINS=$8C,
BPLCON3_BRDNBLNK=$20,
FMODE=$1FC,
HCENTER=$1E2,
CLXCON=$98,
INTREQ=$9C,
BPLCON2_ZDCTEN=$400,
BLTDMOD=$66,
ADKCONR=16,
DMACONR=2,
VSSTRT=$1E0,
HSSTRT=$1DE,
BPLHSTRT=$1D4,
SPRHSTRT=$1D0,
VBSTRT=$1CC,
HBSTRT=$1C4,
DDFSTRT=$92,
```

```
DIWSTRT=$8E,  
BPLCON3_EXTBLNKEN=1,  
CSCBLANKEN=$400,  
LOLDIS=$800,  
VTOTAL=$1C8,  
HTOTAL=$1C0,  
DENISEID=$7C,  
BLTCON0L=$5B,  
SD_POS=0,  
STRLONG=$3E,  
POT0DAT=18,  
JOY0DAT=10,  
VARBEAM=$80,  
DMACON=$96,  
HSYNCTRUE=1,  
VSYNCTRUE=2,  
CSYNCTRUE=4,  
AUD0=$A0,  
AUD1=$B0,  
BPL2MOD=$10A,  
AUD2=$C0,  
BLTBMOD=$62,  
DSKLEN=$24,  
AUD3=$D0,  
BPLCON2_ZDBPSEL0=$1000,  
SD_SIZEOF=8,  
AC_SIZEOF=16,  
BPLCON3_ZDCLKEN=4,  
BPLCON2_ZDBPSEL1=$2000,  
SPRPT=$120,  
BPLCON2_ZDBPSEL2=$4000,  
BLTSIZE=$58,  
ADKCON=$9E,  
BLTSIZH=$5E,  
BLTAPT=$50,  
AC_LEN=4
```

1.123 dmabits.m

```
CONST DMAB_SPRITE=5,  
DMAF_SPRITE=$20,  
DMAB_BLTDONE=14,  
DMAF_BLTDONE=$4000,  
DMAB_BLITHOG=10,  
DMAF_BLITHOG=$400,  
DMAB_BLITTER=6,  
DMAF_BLITTER=$40,  
DMAF_ALL=$1FF,  
DMAB_BLTNZERO=13,  
DMAF_BLTNZERO=$2000,  
DMAF_AUDIO=15,  
DMAB_COPPER=7,  
DMAF_COPPER=$80,  
DMAB_MASTER=9,  
DMAB_RASTER=8,
```

```
DMAF_MASTER=$200,  
DMAF_RASTER=$100,  
DMAB_DISK=4,  
DMAF_DISK=16,  
DMAB_SETCLR=15,  
DMAF_SETCLR=$8000,  
DMAB_AUD0=0,  
DMAF_AUD0=1,  
DMAB_AUD1=1,  
DMAF_AUD1=2,  
DMAB_AUD2=2,  
DMAF_AUD2=4,  
DMAB_AUD3=3,  
DMAF_AUD3=8
```

1.124 intbits.m

```
CONST INTF_VERTB=$20,  
INTB_VERTB=5,  
INTF_DSKSYNC=$1000,  
INTB_DSKSYNC=12,  
INTF_COPER=16,  
INTB_COPER=4,  
INTF_SOFTINT=4,  
INTB_SOFTINT=2,  
INTF_RBF=$800,  
INTB_RBF=11,  
INTF_DSKBLK=2,  
INTB_DSKBLK=1,  
INTF_BLIT=$40,  
INTB_BLIT=6,  
INTF_INTEN=$4000,  
INTB_INTEN=14,  
INTF_TBE=1,  
INTF_EXTER=$2000,  
INTB_TBE=0,  
INTB_EXTER=13,  
INTF_PORTS=8,  
INTB_PORTS=3,  
INTF_SETCLR=$8000,  
INTB_SETCLR=15,  
INTF_AUD0=$80,  
INTB_AUD0=7,  
INTF_AUD1=$100,  
INTB_AUD1=8,  
INTF_AUD2=$200,  
INTB_AUD2=9,  
INTF_AUD3=$400,  
INTB_AUD3=10
```

1.125 intuition

```

cghooks.m          classes.m
classusr.m         gadgetclass.m
icclass.m          imageclass.m
intuition.m        intuitionbase.m
iobsolete.m        pointerclass.m
preferences.m      screens.m
sghooks.m

```

1.126 cghooks.m

```

(----) OBJECT pgx
(  0)   container:ibox (or ARRAY OF ibox)
(  8)   newknob:ibox (or ARRAY OF ibox)
(----) ENDOBJECT      /* SIZEOF=16 */

(----) OBJECT gadgetinfo
(  0)   screen:PTR TO screen
(  4)   window:PTR TO window
(  8)   requester:PTR TO requester
( 12)   rastport:PTR TO rastport
( 16)   layer:PTR TO layer
( 20)   domain:ibox (or ARRAY OF ibox)
( 28)   detailpen:CHAR
( 29)   blockpen:CHAR
( 30)   drinfo:PTR TO drawinfo
(----) ENDOBJECT      /* SIZEOF=34 */

#define CUSTOM_HOOK/1

```

1.127 classes.m

```

(----) OBJECT object
(  0)   node:mln (or ARRAY OF mln)
(  8)   class:PTR TO iclass
(----) ENDOBJECT      /* SIZEOF=12 */

(----) OBJECT iclass
(  0)   dispatcher:hook (or ARRAY OF hook)
( 20)   reserved:LONG
( 24)   super:PTR TO iclass
( 28)   id:LONG
( 32)   instoffset:INT
( 34)   instsize:INT
( 36)   userdata:LONG
( 40)   subclasscount:LONG
( 44)   objectcount:LONG
( 48)   flags:LONG
(----) ENDOBJECT      /* SIZEOF=52 */

CONST CLF_INLIST=1,
      CLB_INLIST=0,

```

```

OJ_CLASS=8

#define SIZEOF_INSTANCE/1
#define INST_DATA/2
#define _OBJECT/1
#define BASEOBJECT/1
#define _OBJ/1
#define OCLASS/1

```

1.128 classusr.m

```

(----) OBJECT opremmember
(  0)  methodid:LONG
(  4)  object:LONG
(----) ENDOBJECT      /* SIZEOF=8 */

(----) OBJECT opaddmember
(  0)  methodid:LONG
(  4)  object:LONG
(----) ENDOBJECT      /* SIZEOF=8 */

(----) OBJECT opmember
(  0)  methodid:LONG
(  4)  object:LONG
(----) ENDOBJECT      /* SIZEOF=8 */

(----) OBJECT opaddtail
(  0)  methodid:LONG
(  4)  list:PTR TO lh
(----) ENDOBJECT      /* SIZEOF=8 */

(----) OBJECT opget
(  0)  methodid:LONG
(  4)  attrid:LONG
(  8)  storage:PTR TO LONG
(----) ENDOBJECT      /* SIZEOF=12 */

(----) OBJECT opnotify
(  0)  methodid:LONG
(  4)  attrlist:PTR TO tagitem
(  8)  ginfo:PTR TO gadgetinfo
( 12)  flags:LONG
(----) ENDOBJECT      /* SIZEOF=16 */

(----) OBJECT opupdate
(  0)  methodid:LONG
(  4)  attrlist:PTR TO tagitem
(  8)  ginfo:PTR TO gadgetinfo
( 12)  flags:LONG
(----) ENDOBJECT      /* SIZEOF=16 */

(----) OBJECT opset
(  0)  methodid:LONG
(  4)  attrlist:PTR TO tagitem
(  8)  ginfo:PTR TO gadgetinfo

```

```

(----) ENDOBJECT      /* SIZEOF=12 */

(----) OBJECT opnew
(  0)  methodid:LONG
(  4)  attrlist:PTR TO tagitem
(  8)  ginfo:PTR TO gadgetinfo
(----) ENDOBJECT      /* SIZEOF=12 */

(----) OBJECT msg
(  0)  methodid:LONG
(----) ENDOBJECT      /* SIZEOF=4 */

CONST OM_REMOVE=$106,
      OM_DISPOSE=$102,
      OM_UPDATE=$108,
      OM_GET=$104,
      OM_ADDTAIL=$105,
      OPUF_INTERIM=1,
      OPUB_INTERIM=0,
      OM_NEW=$101,
      OM_REMMEMBER=$10A,
      OM_ADDMEMBER=$109,
      OM_SET=$103,
      OM_NOTIFY=$107

#define POINTERCLASS/0
#define ITEXTICLASS/0
#define MODELCLASS/0
#define ICCLASS/0
#define GROUPGCLASS/0
#define FRBUTTONCLASS/0
#define BUTTONGCLASS/0
#define STRGCLASS/0
#define PROPGCLASS/0
#define GADGETCLASS/0
#define FILLRECTCLASS/0
#define SYSICLASS/0
#define FRAMEICLASS/0
#define IMAGECLASS/0
#define ROOTCLASS/0

```

1.129 gadgetclass.m

```

(----) OBJECT gplayout
(  0)  methodid:LONG
(  4)  ginfo:PTR TO gadgetinfo
(  8)  initial:LONG
(----) ENDOBJECT      /* SIZEOF=12 */

(----) OBJECT gpgoinactive
(  0)  methodid:LONG
(  4)  ginfo:PTR TO gadgetinfo
(  8)  abort:LONG
(----) ENDOBJECT      /* SIZEOF=12 */

```

```
(----) OBJECT gpgoactive
( 0) methodid:LONG
( 4) ginfo:PTR TO gadgetinfo
( 8) ievent:PTR TO inputevent
(12) termination:PTR TO LONG
(16) mousex:INT
(18) mousey:INT
(20) tabletdata:PTR TO tabletdata
(----) ENDOBJECT /* SIZEOF=24 */
```

```
(----) OBJECT gpinput
( 0) methodid:LONG
( 4) ginfo:PTR TO gadgetinfo
( 8) ievent:PTR TO inputevent
(12) termination:PTR TO LONG
(16) mousex:INT
(18) mousey:INT
(20) tabletdata:PTR TO tabletdata
(----) ENDOBJECT /* SIZEOF=24 */
```

```
(----) OBJECT gprender
( 0) methodid:LONG
( 4) ginfo:PTR TO gadgetinfo
( 8) rport:PTR TO rastport
(12) redraw:LONG
(----) ENDOBJECT /* SIZEOF=16 */
```

```
(----) OBJECT gphelpstest
( 0) methodid:LONG
( 4) ginfo:PTR TO gadgetinfo
( 8) mousex:INT
(10) mousey:INT
(----) ENDOBJECT /* SIZEOF=12 */
```

```
(----) OBJECT gphittest
( 0) methodid:LONG
( 4) ginfo:PTR TO gadgetinfo
( 8) mousex:INT
(10) mousey:INT
(----) ENDOBJECT /* SIZEOF=12 */
```

```
CONST STRINGA_FONT=$80032008,
      STRINGA_WORKBUFFER=$80032004,
      STRINGA_UNDOBUFFER=$80032003,
      STRINGA_BUFFER=$80032002,
      GA_SYSGTYPE=$8003001E,
      STRINGA_ALTKEYMAP=$80032007,
      LORIENT_HORIZ=1,
      GM_HELPTEST=5,
      GM_HITTEST=0,
      STRINGA_BUFFERPOS=$80032005,
      GMRF_PREVACTIVE=$20,
      GMRF_NEXTACTIVE=16,
      GMRB_PREVACTIVE=5,
      GMRB_NEXTACTIVE=4,
      GMR_PREVACTIVE=$20,
      GMR_NEXTACTIVE=16,
```

```
GMR_MEACTIVE=0,
GM_GOINACTIVE=4,
GM_GOACTIVE=2,
GM_HANDLEINPUT=3,
GA_RELSPECIAL=$80030027,
LAYOUTA_DUMMY=$80038000,
STRINGA_DUMMY=$80032000,
PGA_DUMMY=$80031000,
GA_ID=$80030010,
GA_DUMMY=$80030000,
GMRF_VERIFY=8,
GMRB_VERIFY=3,
GMR_VERIFY=8,
GA_RELVERIFY=$80030016,
GMR_HELPCODE=$10000,
GA_DISABLED=$8003000E,
GA_USERDATA=$80030011,
GREDRAW_UPDATE=2,
STRINGA_DISPPOS=$80032006,
GA_IMMEDIATE=$80030015,
STRINGA_TEXTVAL=$80032012,
GMR_HELPHIT=-1,
GMR_NOHELPHIT=0,
GM_RENDER=1,
GA_SELECTRENDER=$8003000C,
GA_LABELIMAGE=$80030023,
GA_FOLLOWMOUSE=$80030017,
GA_IMAGE=$8003000A,
PGA_HORIZPOT=$80031003,
LAYOUTA_ORIENTATION=$80038003,
STRINGA_JUSTIFICATION=$80032010,
GA_SYSGADGET=$8003001D,
GA_ENDGADGET=$80030014,
GA_GZZGADGET=$8003000F,
GA_INTUITEXT=$80030022,
GA_TEXT=$80030009,
LAYOUTA_LAYOUTOBJ=$80038001,
GREDRAW_REDRAW=1,
STRINGA_LONGVAL=$80032011,
GA_TOGGLESELECT=$8003001C,
GA_DRAWINFO=$80030021,
GA_SPECIALINFO=$80030012,
LORIENT_NONE=0,
PGA_TOP=$80031009,
GA_TOP=$80030003,
PGA_VISIBLE=$80031008,
STRINGA_NOFILTERMODE=$8003200F,
STRINGA_FIXEDFIELDMODE=$8003200E,
STRINGA_REPLACEMODE=$8003200D,
PGA_FREEDOM=$80031001,
GA_SELECTED=$80030013,
GA_RELBOTTOM=$80030004,
GA_HIGHLIGHT=$8003000D,
GA_RELHEIGHT=$80030008,
GA_HEIGHT=$80030007,
GA_RELRIGHT=$80030002,
STRINGA_EDITMODES=$8003200C,
```

```

PGA_BORDERLESS=$80031002,
SG_DEFAULTMAXCHARS=$80,
STRINGA_MAXCHARS=$80032001,
GA_LEFT=$80030001,
PGA_TOTAL=$80031007,
LORIENT_VERT=2,
GMRF_REUSE=4,
GMRF_NOREUSE=2,
GMRB_REUSE=2,
GMRB_NOREUSE=1,
GMR_REUSE=4,
GMR_NOREUSE=2,
STRINGA_ACTIVEPENS=$8003200A,
STRINGA_PENS=$80032009,
GA_BOUNDS=$80030026,
PGA_VERTBODY=$80031006,
PGA_HORIZBODY=$80031004,
LAYOUTA_SPACING=$80038002,
STRINGA_EDITHOOK=$8003200B,
GA_TABCYCLE=$80030024,
PGA_VERTPOT=$80031005,
GREDRAW_TOGGLE=0,
PGA_NEWLOOK=$8003100A,
GA_RELWIDTH=$80030006,
GA_WIDTH=$80030005,
GMR_GADGETHIT=4,
STRINGA_EXITHELP=$80032013,
GA_GADGETHELP=$80030025,
GA_BOTTOMBORDER=$8003001B,
GA_TOPBORDER=$8003001A,
GA_LEFTBORDER=$80030019,
GA_RIGHTBORDER=$80030018,
GA_BORDER=$8003000B,
GA_NEXT=$80030020,
GA_PREVIOUS=$8003001F,
GM_LAYOUT=6

```

1.130 icclass.m

```

CONST ICA_DUMMY=$80040000,
ICSPECIAL_CODE=$80040003,
ICA_TARGET=$80040001,
ICA_MAP=$80040002,
ICTARGET_IDCMP=-1,
ICM_CHECKLOOP=$404,
ICM_CLEARLOOP=$403,
ICM_SETLOOP=$402

```

1.131 imageclass.m

```

(----) OBJECT imphitframe
( 0)    methodid:LONG

```

```
(  4)    pointx:INT
(  6)    pointy:INT
(  8)    dimensionswidth:INT
( 10)    dimensionsheight:INT
(----) ENDOBJECT      /* SIZEOF=12 */

(----) OBJECT imphittest
(  0)    methodid:LONG
(  4)    pointx:INT
(  6)    pointy:INT
(  8)    dimensionswidth:INT
( 10)    dimensionsheight:INT
(----) ENDOBJECT      /* SIZEOF=12 */

(----) OBJECT imperaseframe
(  0)    methodid:LONG
(  4)    rport:PTR TO rastport
(  8)    offsetx:INT
( 10)    offsety:INT
( 12)    dimensionswidth:INT
( 14)    dimensionsheight:INT
(----) ENDOBJECT      /* SIZEOF=16 */

(----) OBJECT imperase
(  0)    methodid:LONG
(  4)    rport:PTR TO rastport
(  8)    offsetx:INT
( 10)    offsety:INT
( 12)    dimensionswidth:INT
( 14)    dimensionsheight:INT
(----) ENDOBJECT      /* SIZEOF=16 */

(----) OBJECT impdrawframe
(  0)    methodid:LONG
(  4)    rport:PTR TO rastport
(  8)    offsetx:INT
( 10)    offsety:INT
( 12)    state:LONG
( 16)    drinfo:PTR TO drawinfo
( 20)    dimensionswidth:INT
( 22)    dimensionsheight:INT
(----) ENDOBJECT      /* SIZEOF=24 */

(----) OBJECT impdraw
(  0)    methodid:LONG
(  4)    rport:PTR TO rastport
(  8)    offsetx:INT
( 10)    offsety:INT
( 12)    state:LONG
( 16)    drinfo:PTR TO drawinfo
( 20)    dimensionswidth:INT
( 22)    dimensionsheight:INT
(----) ENDOBJECT      /* SIZEOF=24 */

(----) OBJECT impframebox
(  0)    methodid:LONG
(  4)    contentsbox:PTR TO ibox
```

```
( 8)   framebox:PTR TO ibox
( 12)  drinfo:PTR TO drawinfo
( 16)  frameflags:LONG
(----) ENDOBJECT      /* SIZEOF=20 */

CONST SYSISIZE_LOWRES=1,
      SYSIA_REFERENCEFONT=$80020019,
      IA_FONT=$80020013,
      IA_FRAMETYPE=$8002001B,
      IM_MOVE=$205,
      IM_HITTEST=$203,
      AMIGAKEY=17,
      IDS_INACTIVENORMAL=5,
      IDS_NORMAL=0,
      IDS_INDETERMINANT=4,
      IDS_INACTIVEDISABLED=7,
      IDS_DISABLED=2,
      IA_DATA=$80020007,
      FRAME_ICONDROPBOX=3,
      SYSIA_WHICH=$8002000D,
      IM_ERASE=$204,
      IA_HIGHLIGHTPEN=$8002000A,
      IM_FRAMEBOX=$207,
      MXIMAGE=15,
      CHECKIMAGE=14,
      DOWNIMAGE=13,
      RIGHTIMAGE=12,
      UPIMAGE=11,
      LEFTIMAGE=10,
      SDEPTHIMAGE=5,
      CLOSEIMAGE=3,
      SIZEIMAGE=2,
      ZOOMIMAGE=1,
      DEPTHIMAGE=0,
      IA_SUPPORTSDISABLE=$8002001A,
      IA_RESOLUTION=$8002000F,
      MENUCHECK=16,
      IM_DRAW=$202,
      FRAME_DEFAULT=0,
      IA_RECESSED=$80020015,
      FRAMEF_SPECIFY=1,
      FRAMEB_SPECIFY=0,
      IA_SHADOWPEN=$80020009,
      IA_BGPEN=$80020006,
      IA_FGPEN=$80020005,
      IMAGE_ATTRIBUTES=$80020000,
      SYSIA_DRAWINFO=$80020018,
      IM_ERASEFRAME=$209,
      IM_HITFRAME=$208,
      IM_DRAWFRAME=$206,
      IA_TOP=$80020002,
      IDS_BUSY=3,
      IA_MODE=$80020012,
      IDS_INACTIVSELECTED=6,
      IDS_SELECTED=1,
      FRAME_BUTTON=1,
      IA_HEIGHT=$80020004,
```

```

IDS_INDETERMINATE=4,
SYSISIZE_MEDRES=0,
IA_LEFT=$80020001,
IA_EDGESONLY=$80020017,
SYSIA_PENS=$8002000E,
IA_PENS=$8002000E,
SYSISIZE_HIRES=2,
SYSIA_DEPTH=$8002000C,
CUSTOMIMAGEDEPTH=-1,
FRAME_RIDGE=2,
IA_LINEWIDTH=$80020008,
IA_WIDTH=$80020003,
IA_DOUBLEEMBOSS=$80020016,
IA_OUTLINE=$80020014,
IA_APATTERN=$80020010,
SYSIA_SIZE=$8002000B,
IA_APATSIZE=$80020011

```

```

#define IM_BGPN/1
#define IM_FGPN/1
#define IM_BOX/1
#define GADGET_BOX/1

```

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```

(----) OBJECT tablehookdata
( 0)  screen:PTR TO screen
( 4)  width:LONG
( 8)  height:LONG
(12)  screenchanged:LONG
(----) ENDOBJECT      /* SIZEOF=16 */

(----) OBJECT tabletdata
( 0)  xfraction:INT
( 2)  yfraction:INT
( 4)  tabletX:LONG
( 8)  tablety:LONG
(12)  rangex:LONG
(16)  rangey:LONG
(20)  taglist:PTR TO tagitem
(----) ENDOBJECT      /* SIZEOF=24 */

(----) OBJECT easystuct
( 0)  structsize:LONG
( 4)  flags:LONG
( 8)  title:PTR TO CHAR
(12)  textformat:PTR TO CHAR
(16)  gadgetformat:PTR TO CHAR
(----) ENDOBJECT      /* SIZEOF=20 */

(----) OBJECT colorspec
( 0)  colorindex:INT
( 2)  red:INT
( 4)  green:INT
( 6)  blue:INT

```

```
(----) ENDOBJECT      /* SIZEOF=8 */

(----) OBJECT remember
(  0)  nextremember:PTR TO remember
(  4)  remembersize:LONG
(  8)  memory:PTR TO CHAR
(----) ENDOBJECT      /* SIZEOF=12 */

(----) OBJECT extnewwindow
(  0)  leftedge:INT
(  2)  topedge:INT
(  4)  width:INT
(  6)  height:INT
(  8)  detailpen:CHAR
(  9)  blockpen:CHAR
( 10)  idcmpflags:LONG
( 14)  flags:LONG
( 18)  firstgadget:PTR TO gadget
( 22)  checkmark:PTR TO image
( 26)  title:PTR TO CHAR
( 30)  screen:PTR TO screen
( 34)  bitmap:PTR TO bitmap
( 38)  minwidth:INT
( 40)  minheight:INT
( 42)  maxwidth:INT
( 44)  maxheight:INT
( 46)  type:INT
( 48)  extension:PTR TO tagitem
(----) ENDOBJECT      /* SIZEOF=52 */

(----) OBJECT nw
(  0)  leftedge:INT
(  2)  topedge:INT
(  4)  width:INT
(  6)  height:INT
(  8)  detailpen:CHAR
(  9)  blockpen:CHAR
( 10)  idcmpflags:LONG
( 14)  flags:LONG
( 18)  firstgadget:PTR TO gadget
( 22)  checkmark:PTR TO image
( 26)  title:PTR TO CHAR
( 30)  screen:PTR TO screen
( 34)  bitmap:PTR TO bitmap
( 38)  minwidth:INT
( 40)  minheight:INT
( 42)  maxwidth:INT
( 44)  maxheight:INT
( 46)  type:INT
(----) ENDOBJECT      /* SIZEOF=48 */

(----) OBJECT window
(  0)  nextwindow:PTR TO window
(  4)  leftedge:INT
(  6)  topedge:INT
(  8)  width:INT
( 10)  height:INT
```

```
( 12)  mousey:INT
( 14)  mousex:INT
( 16)  minwidth:INT
( 18)  minheight:INT
( 20)  maxwidth:INT
( 22)  maxheight:INT
( 24)  flags:LONG
( 28)  menustrip:PTR TO menu
( 32)  title:PTR TO CHAR
( 36)  firstrequest:PTR TO requester
( 40)  dmrequest:PTR TO requester
( 44)  reqcount:INT
( 46)  wscreen:PTR TO screen
( 50)  rport:PTR TO rastport
( 54)  borderleft:CHAR
( 55)  bordertop:CHAR
( 56)  borderright:CHAR
( 57)  borderbottom:CHAR
( 58)  borderrport:PTR TO rastport
( 62)  firstgadget:PTR TO gadget
( 66)  parent:PTR TO window
( 70)  descendant:PTR TO window
( 74)  pointer:PTR TO INT
( 78)  ptrheight:CHAR
( 79)  ptrwidth:CHAR
( 80)  xoffset:CHAR
( 81)  yoffset:CHAR
( 82)  idcmpflags:LONG
( 86)  userport:PTR TO mp
( 90)  windowport:PTR TO mp
( 94)  messagekey:PTR TO intuimessage
( 98)  detailpen:CHAR
( 99)  blockpen:CHAR
(100)  checkmark:PTR TO image
(104)  screentitle:PTR TO CHAR
(108)  gzzmousex:INT
(110)  gzzmousey:INT
(112)  gzzwidth:INT
(114)  gzzheight:INT
(116)  extdata:PTR TO CHAR
(120)  userdata:PTR TO CHAR
(124)  wlayer:PTR TO layer
(128)  ifont:PTR TO textfont
(132)  moreflags:LONG
(----) ENDOBJECT      /* SIZEOF=136 */

(----) OBJECT ibox
(  0)  left:INT
(  2)  top:INT
(  4)  width:INT
(  6)  height:INT
(----) ENDOBJECT      /* SIZEOF=8 */

(----) OBJECT extintuimessage
(  0)  intuimessage:intuimessage (or ARRAY OF intuimessage)
( 52)  tabletdata:PTR TO tabletdata
(----) ENDOBJECT      /* SIZEOF=56 */
```

```
(----) OBJECT intuimessage
(  0)  execmessage:mn (or ARRAY OF mn)
( 20)  class:LONG
( 24)  code:INT
( 26)  qualifier:INT
( 28)  iaddress:LONG
( 32)  mousex:INT
( 34)  mousey:INT
( 36)  seconds:LONG
( 40)  micros:LONG
( 44)  idcmpwindow:PTR TO window
( 48)  speciallink:PTR TO intuimessage
(----) ENDOBJECT      /* SIZEOF=52 */
```

```
(----) OBJECT image
(  0)  leftedge:INT
(  2)  topedge:INT
(  4)  width:INT
(  6)  height:INT
(  8)  depth:INT
( 10)  imagedata:PTR TO INT
( 14)  planepick:CHAR
( 15)  planeonoff:CHAR
( 16)  nextimage:PTR TO image
(----) ENDOBJECT      /* SIZEOF=20 */
```

```
(----) OBJECT border
(  0)  leftedge:INT
(  2)  topedge:INT
(  4)  frontpen:CHAR
(  5)  backpen:CHAR
(  6)  drawmode:CHAR
(  7)  count:CHAR
(  8)  xy:PTR TO INT
( 12)  nextborder:PTR TO border
(----) ENDOBJECT      /* SIZEOF=16 */
```

```
(----) OBJECT intuitext
(  0)  frontpen:CHAR
(  1)  backpen:CHAR
(  2)  drawmode:CHAR
(  4)  leftedge:INT
(  6)  topedge:INT
(  8)  itextfont:PTR TO textattr
( 12)  itext:PTR TO CHAR
( 16)  nexttext:PTR TO intuitext
(----) ENDOBJECT      /* SIZEOF=20 */
```

```
(----) OBJECT stringinfo
(  0)  buffer:PTR TO CHAR
(  4)  undobuffer:PTR TO CHAR
(  8)  bufferpos:INT
( 10)  maxchars:INT
( 12)  disppos:INT
( 14)  undopos:INT
( 16)  numchars:INT
```

```
( 18)   dispcount:INT
( 20)   cleft:INT
( 22)   ctop:INT
( 24)   extension:PTR TO stringextend
( 28)   longint:LONG
( 32)   altkeymap:PTR TO keymap
(----) ENDOBJECT      /* SIZEOF=36 */

(----) OBJECT propinfo
(  0)   flags:INT
(  2)   horizpot:INT
(  4)   vertpot:INT
(  6)   horizbody:INT
(  8)   vertbody:INT
( 10)   cwidth:INT
( 12)   cheight:INT
( 14)   hpotres:INT
( 16)   vpotres:INT
( 18)   leftborder:INT
( 20)   topborder:INT
(----) ENDOBJECT      /* SIZEOF=22 */

(----) OBJECT boolinfo
(  0)   flags:INT
(  2)   mask:PTR TO INT
(  6)   reserved:LONG
(----) ENDOBJECT      /* SIZEOF=10 */

(----) OBJECT extgadget
(  0)   nextgadget:PTR TO extgadget
(  4)   leftedge:INT
(  6)   topedge:INT
(  8)   width:INT
( 10)   height:INT
( 12)   flags:INT
( 14)   activation:INT
( 16)   gadgettype:INT
( 18)   gadgetrender:LONG
( 22)   selectrender:LONG
( 26)   gadgettext:PTR TO intuitext
( 30)   mutualexclude:LONG
( 34)   specialinfo:LONG
( 38)   gadgetid:INT
( 40)   userdata:LONG
( 44)   moreflags:LONG
( 48)   boundsleftedge:INT
( 50)   boundstopege:INT
( 52)   boundswidth:INT
( 54)   boundsheight:INT
(----) ENDOBJECT      /* SIZEOF=56 */

(----) OBJECT gadget
(  0)   nextgadget:PTR TO gadget
(  4)   leftedge:INT
(  6)   topedge:INT
(  8)   width:INT
( 10)   height:INT
```

```
( 12)  flags:INT
( 14)  activation:INT
( 16)  gadgettype:INT
( 18)  gadgetrender:LONG
( 22)  selectrender:LONG
( 26)  gadgettext:PTR TO intuitext
( 30)  mutualexclude:LONG
( 34)  specialinfo:LONG
( 38)  gadgetid:INT
( 40)  userdata:LONG
(----) ENDOBJECT      /* SIZEOF=44 */

(----) OBJECT requester
(  0)  olderrequest:PTR TO requester
(  4)  leftedge:INT
(  6)  topedge:INT
(  8)  width:INT
( 10)  height:INT
( 12)  relleft:INT
( 14)  reltop:INT
( 16)  reggadget:PTR TO gadget
( 20)  reqborder:PTR TO border
( 24)  reqtext:PTR TO intuitext
( 28)  flags:INT
( 30)  backfill:CHAR
( 32)  reqlayer:PTR TO layer
( 36)  reqpad1[32]:ARRAY OF CHAR
( 68)  imagebmap:PTR TO bitmap
( 72)  rwindow:PTR TO window
( 76)  reqimage:PTR TO image
( 80)  reqpad2[32]:ARRAY OF CHAR
(----) ENDOBJECT      /* SIZEOF=112 */

(----) OBJECT menuitem
(  0)  nextitem:PTR TO menuitem
(  4)  leftedge:INT
(  6)  topedge:INT
(  8)  width:INT
( 10)  height:INT
( 12)  flags:INT
( 14)  mutualexclude:LONG
( 18)  itemfill:LONG
( 22)  selectfill:LONG
( 26)  command:CHAR
( 28)  subitem:PTR TO menuitem
( 32)  nextselect:INT
(----) ENDOBJECT      /* SIZEOF=34 */

(----) OBJECT menu
(  0)  nextmenu:PTR TO menu
(  4)  leftedge:INT
(  6)  topedge:INT
(  8)  width:INT
( 10)  height:INT
( 12)  flags:INT
( 14)  menuname:PTR TO CHAR
( 18)  firstitem:PTR TO menuitem
```

```
( 22)    jazzx:INT
( 24)    jazzy:INT
( 26)    beatx:INT
( 28)    beaty:INT
(----) ENDOBJECT      /* SIZEOF=30 */

CONST IDCMP_MENUPICK=$100,
      AUTOITEXTFONT=0,
      WA_DETAILPEN=$80000068,
      ALERT_TYPE=$80000000,
      GTYP_GADGETTYPE=$FC00,
      GACT_ALTKEYMAP=$1000,
      WA_ACTIVATE=$80000089,
      WFLG_ACTIVATE=$1000,
      FREEHORIZ=2,
      NOSUB=31,
      IDCMP_DELTAMOVE=$100000,
      IDCMP_MOUSEMOVE=16,
      CURSORDOWN=$4D,
      MIDDLEDOWN=$6A,
      MENUDOWN=$69,
      SELECTDOWN=$68,
      IDCMP_GADGETDOWN=$20,
      OKCANCEL=2,
      MENUCANCEL=2,
      WA_AMIGAKEY=$80000094,
      IDCMP_VANILLAKEY=$200000,
      WFLG_WINDOWACTIVE=$2000,
      REQACTIVE=$2000,
      COMMSEQ=4,
      WA_HELPGROUP=$8000009B,
      GFLG_RELSPECIAL=$4000,
      KNOBHIT=$100,
      GTYP_GADGET0002=2,
      TABLETA_DUMMY=$8003A000,
      TABLETA_INPROXIMITY=$8003A008,
      WA_NEWLOOKMENUS=$80000093,
      WA_PUBSCREENFALLBACK=$8000007A,
      WFLG_NEWLOOKMENUS=$200000,
      IDCMP_MENUVERIFY=$2000,
      IDCMP_REQVERIFY=$800,
      IDCMP_SIZEVERIFY=1,
      GTYP_SDOWNBACK=$70,
      GTYP_WDOWNBACK=$60,
      GACT_RELVERIFY=1,
      MENUUP=$E9,
      WA_PUBSCREEN=$80000079,
      WA_CUSTOMSCREEN=$80000070,
      WFLG_ZOOMED=$10000000,
      TABLETA_BUTTONBITS=$8003A007,
      WFLG_REFRESHBITS=$C0,
      GFLG_GADGHIGHBITS=3,
      SIMPLEREQ=16,
      CHECKIT=1,
      WA_SMARTREFRESH=$8000008D,
      WA_SIMPLEREFRESH=$8000008C,
      WA_NOCAREREFRESH=$80000087,
```

```
WFLG_WINDOWREFRESH=$1000000,  
WFLG_NOCAREREFRESH=$20000,  
WFLG_OTHER_REFRESH=$C0,  
WFLG_SIMPLE_REFRESH=$40,  
WFLG_SMART_REFRESH=0,  
GFLG_DISABLED=$100,  
DEFERREFRESH=$8000,  
ITEMENABLED=16,  
MENUENABLED=1,  
WA_TABLETMESSAGES=$8000009A,  
IDCMP_MOUSEBUTTONS=8,  
WA_CHECKMARK=$8000006D,  
WA_POINTERDELAY=$80000099,  
WFLG_MENUSTATE=$8000,  
IDCMP_IDCMPUPDATE=$800000,  
MENUNULL=$FFFF,  
KNOBHMIN=6,  
NOITEM=$3F,  
HIGHITEM=$2000,  
WFLG_NW_EXTENDED=$40000,  
GFLG_EXTENDED=$8000,  
MENUTOGGLED=$4000,  
IDCMP_NEWPREFS=$4000,  
WBENCHOPEN=1,  
MENUWAITING=3,  
TABLETA_RESOLUTIONX=$8003A009,  
TABLETA_RESOLUTIONY=$8003A00A,  
GACT_IMMEDIATE=2,  
AUTOTOPEDGE=3,  
AUTOLEFTEdge=6,  
IG_LEFTEDGE=0,  
BOOLMASK=1,  
GTYT_SYSTYPEMASK=$F0,  
GTYT_GTYPEMASK=7,  
GFLG_LABELMASK=$3000,  
GD_LEFTEDGE=4,  
WA_DRAGBAR=$80000082,  
WFLG_DRAGBAR=2,  
WA_BACKDROP=$80000085,  
WFLG_BACKDROP=$100,  
IDCMP_DISKINSERTED=$8000,  
AUTOFRONTPEN=0,  
SUPER_UNUSED=$FCFC0000,  
GTYT_SUNUSED=$70,  
TABLETA_ANGLEX=$8003A003,  
TABLETA_ANGLEY=$8003A004,  
WA_REPORTMOUSE=$80000086,  
WFLG_REPORTMOUSE=$200,  
GACT_FOLLOWMOUSE=8,  
GFLG_LABELIMAGE=$2000,  
GFLG_GADGIMAGE=4,  
GFLG_GADGHIMAGE=2,  
USEREQIMAGE=$20,  
HIGHIMAGE=0,  
TABLETA_ANGLEZ=$8003A005,  
GTYT_SUPFRONT=$50,  
GTYT_WUPFRONT=$40,
```

```
WA_GADGETS=$8000006C,  
GFLG_IMAGEDISABLE=$800,  
IDCMP_REQCLEAR=$1000,  
GACT_BORDERSNIFF=$8000,  
KNOBVMIN=4,  
GACT_STRINGEXTEND=$2000,  
GACT_BOOLEXTEND=$2000,  
GFLG_STRINGEXTEND=$400,  
AMIGAKEYS=$C0,  
WA_COLORS=$8000007C,  
WBENCHCLOSE=2,  
GTYP_CLOSE=$80,  
WA_CLOSEGADGET=$80000084,  
WA_DEPTHGADGET=$80000083,  
WA_SIZEGADGET=$80000081,  
WFLG_CLOSEGADGET=8,  
WFLG_DEPTHGADGET=4,  
WFLG_SIZEGADGET=1,  
GTYP_CUSTOMGADGET=5,  
GTYP_STRGADGET=4,  
GTYP_PROPGADGET=3,  
GTYP_BOOLGADGET=1,  
GTYP_REQGADGET=$1000,  
GTYP_GZZGADGET=$2000,  
GTYP_SCRGADGET=$4000,  
GTYP_SYSGADGET=$8000,  
GACT_ACTIVEGADGET=$4000,  
GACT_ENDGADGET=4,  
WA_GIMMEZEROZERO=$80000091,  
WFLG_GIMMEZEROZERO=$400,  
GFLG_LABELSTRING=$1000,  
AUTONEXTTEXT=0,  
GFLG_LABELITEXT=0,  
ITEMTEXT=2,  
WA_RMBTRAP=$8000008A,  
WFLG_RMBTRAP=$10000,  
WFLG_INREQUEST=$4000,  
SYSREQUEST=$4000,  
IDCMP_DISKREMOVED=$10000,  
GTYP_SDRAGGING=$30,  
GTYP_WDRAGGING=$20,  
WA_SCREENITLE=$8000006F,  
WA_TITLE=$8000006E,  
IDCMP_RAWKEY=$400,  
MAXPOT=$FFFF,  
GACT_TOGGLESELECT=$100,  
WA_RPTQUEUE=$80000080,  
WA_MOUSEQUEUE=$8000007E,  
DEFAULTMOUSEQUEUE=5,  
GACT_LONGINT=$800,  
GFLG_GADGHBOX=1,  
HIGHBOX=$80,  
NOMENU=31,  
MENUHOT=1,  
AUTOBACKPEN=1,  
WA_BLOCKPEN=$80000069,  
GFLG_GADGHNONE=3,
```

```
HIGHNONE=$C0,
PREDRAWN=2,
ISDRAWN=$1000,
MIDRAWN=$100,
WA_TOP=$80000065,
KEYCODE_B=$35,
GFLG_GADGHCOMP=0,
HIGHCOMP=$40,
AUTODRAWMODE=1,
DEADEND_ALERT=$80000000,
RECOVERY_ALERT=0,
WA_ZOOM=$8000007D,
WFLG_HASZOOM=$20000000,
GTYW_ZOOM=$60,
WA_SIZEBBOTTOM=$8000008F,
WFLG_SIZEBBOTTOM=$20,
GFLG_SELECTED=$80,
GFLG_RELBOTTOM=8,
CURSORRIGHT=$4E,
AMIGARIGHT=$80,
ALRIGHT=$20,
WA_BUSYPOINTER=$80000098,
WA_POINTER=$80000097,
WA_SIZEBRIGHT=$8000008E,
WA_INNERHEIGHT=$80000077,
WA_MAXHEIGHT=$80000075,
WA_MINHEIGHT=$80000073,
WA_HEIGHT=$80000067,
WFLG_SIZEBRIGHT=16,
GACT_STRINGRIGHT=$400,
GACT_STRINGCENTER=$200,
GFLG_RELHEIGHT=$40,
GFLG_RELRIGHT=16,
OKOK=1,
KEYCODE_M=$37,
KEYCODE_N=$36,
GTYW_SIZING=16,
POINTREL=1,
KEYCODE_Q=16,
IDCMP_REQSET=$80,
KEYCODE_LESS=$38,
WA_BORDERLESS=$80000088,
WFLG_BORDERLESS=$800,
PROPBORDERLESS=8,
KEYCODE_V=$34,
WA_OBSOLETE=$80000096,
KEYCODE_X=$32,
CURSORLEFT=$4F,
AMIGALEFT=$40,
ALTLEFT=16,
WA_LEFT=$80000064,
GMOER_SCROLLRASTER=4,
GACT_STRINGLEFT=0,
KEYCODE_Z=$31,
WFLG_WINDOWTICKED=$4000000,
CHECKED=$100,
WFLG_VISITOR=$8000000,
```

```
IDCMP_GADGETUP=$40,
FREEVERT=4,
IDCMP_LONELYMESSAGE=$80000000,
IDCMP_WBENCHMESSAGE=$20000,
NOISYREQ=4,
WA_NOTIFYDEPTH=$80000095,
CWCODE_DEPTH=1,
GMORE_BOUNDS=1,
GTYP_SDEPTH=$50,
GTYP_WDEPTH=$40,
MAXBODY=$FFFF,
AUTOKNOB=1,
TABLETA_TABLETZ=$8003A001,
WA_HELPGROUPWINDOW=$8000009C,
WA_WBENCHWINDOW=$8000008B,
WFLG_WBENCHWINDOW=$2000000,
IDCMP_CHANGEWINDOW=$2000000,
IDCMP_INTUITICKS=$400000,
IDCMP_INACTIVIEWINDOW=$80000,
IDCMP_ACTIVIEWINDOW=$40000,
IDCMP_CLOSEWINDOW=$200,
IDCMP_REFRESHWINDOW=4,
REQOFFWINDOW=$1000,
OKABORT=4,
GFLG_TABCYCLE=$200,
MIDDLEUP=$EA,
CURSORUP=$4C,
MENUTOGGLE=8,
TABLETA_PRESSURE=$8003A006,
PROPNEWLOOK=16,
LOWCOMMWIDTH=16,
LOWCHECKWIDTH=13,
COMMWIDTH=27,
CHECKWIDTH=19,
WA_INNERWIDTH=$80000076,
WA_MAXWIDTH=$80000074,
WA_MINWIDTH=$80000072,
WA_WIDTH=$80000066,
GFLG_RELWIDTH=$20,
HC_GADGETHELP=1,
WA_MENUHELP=$80000092,
WA_AUTOADJUST=$80000090,
WA_IDCMP=$8000006A,
IDCMP_GADGETHELP=$4000000,
IDCMP_MENUHELP=$1000000,
GMORE_GADGETHELP=2,
KEYCODE_GREATER=$39,
GACT_BOTTOMBORDER=$80,
GACT_TOPBORDER=$40,
GACT_LEFTBORDER=$20,
GACT_RIGHTBORDER=16,
WA_BACKFILL=$8000007F,
NOREQBACKFILL=$40,
CWCODE_MOVESIZE=0,
IDCMP_NEWSIZE=2,
WA_SUPERBITMAP=$80000071,
WFLG_SUPER_BITMAP=$80,
```

```

        TABLETA_RANGEZ=$8003A002,
        SELECTUP=$E8,
        WA_WINDOWNAME=$8000007B,
        WA_PUBSCREENNAME=$80000078,
        WA_FLAGS=$8000006B,
        HIGHFLAGS=$C0

#define FULLMENUNUM/3
#define MENUNUM/1
#define SHIFTSUB/1
#define SHIFITEM/1
#define SHAKNUM/1
#define SHIFTMENU/1
#define ITEMNUM/1
#define SPARNUM/1
#define SSBNUM/1
#define SWBNUM/1
#define SRBNUM/1
#define SUBNUM/1

```

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```

(----) OBJECT intuitionbase
(   0)   libnode:lib (or ARRAY OF lib)
(  34)   viewlord:view (or ARRAY OF view)
(  52)   activewindow:PTR TO window
(  56)   activescreen:PTR TO screen
(  60)   firstscreen:PTR TO screen
(  64)   flags:LONG
(  68)   mousey:INT
(  70)   mousex:INT
(  72)   seconds:LONG
(  76)   micros:LONG
(----) ENDOBJECT      /* SIZEOF=80 */

CONST EVENTMAX=10,
        LOWRESPICK=1,
        HIRESPICK=0,
        SDRAGGADGET=7,
        SDOWNBACKGADGET=6,
        SUPFRONTGADGET=5,
        DRAGGADGET=4,
        CLOSEGADGET=3,
        SIZEGADGET=2,
        DOWNBACKGADGET=1,
        UPFRONTGADGET=0,
        LOWRESGADGET=1,
        HIRESGADGET=0,
        GADGETCOUNT=8,
        RESCOUNT=2,
        DMODECOUNT=2

```


1.134 iobsolete.m

```
CONST MENUPICK=$100,  
      IA_FONT=$80020013,  
      HIFILLPEN=5,  
      DETAILPEN=0,  
      GA_SYSGTYPE=$8003001E,  
      GADGETTYPE=$FC00,  
      ALTKEYMAP=$1000,  
      ACTIVATE=$1000,  
      DELTAMOVE=$100000,  
      MOUSEMOVE=16,  
      GADGETDOWN=$20,  
      VANILLAKEY=$200000,  
      WINDOWACTIVE=$2000,  
      GADGET0002=2,  
      GA_RELVERIFY=$80030016,  
      MENUVERIFY=$2000,  
      REQVERIFY=$800,  
      SIZEVERIFY=1,  
      SDOWNBACK=$70,  
      WDOWNBACK=$60,  
      RELVERIFY=1,  
      ZOOMED=$10000000,  
      REFRESHBITS=$C0,  
      GADGHIGHBITS=3,  
      GA_DISABLED=$8003000E,  
      WINDOWREFRESH=$1000000,  
      NOCAREREFRESH=$20000,  
      OTHER_REFRESH=$C0,  
      SIMPLE_REFRESH=$40,  
      SMART_REFRESH=0,  
      GADGDISABLED=$100,  
      MOUSEBUTTONS=8,  
      IA_DATA=$80020007,  
      GA_USERDATA=$80030011,  
      MENUSTATE=$8000,  
      IDCMPUPDATE=$800000,  
      NW_EXTENDED=$40000,  
      NEWPREFS=$4000,  
      GA_IMMEDIATE=$80030015,  
      GADGIMMEDIATE=2,  
      GTYPEMASK=7,  
      LABELMASK=$3000,  
      BACKDROP=$100,  
      DISKINSERTED=$8000,  
      GA_SELECTRENDER=$8003000C,  
      HILIGHTTEXTPEN=8,  
      BACKGROUNDPEN=7,  
      HIFILLTEXTPEN=6,  
      TEXTPEN=2,  
      IA_HIGHLIGHTPEN=$8002000A,  
      GA_LABELIMAGE=$80030023,  
      GA_FOLLOWMOUSE=$80030017,  
      GA_IMAGE=$8003000A,  
      REPORTMOUSE=$200,
```

```
FOLLOWMOUSE=8,
LABELIMAGE=$2000,
GADGIMAGE=4,
GADGHIMAGE=2,
PGA_HORIZPOT=$80031003,
SUPFRONT=$50,
WUPFRONT=$40,
IA_RESOLUTION=$8002000F,
LAYOUTA_ORIENTATION=$80038003,
REQCLEAR=$1000,
BORDERSNIFF=$8000,
STRINGEXTEND=$2000,
BOOLEXTEND=$2000,
WINDOWDRAG=2,
WINDOWCLOSE=8,
CLOSE=$80,
GA_SYSGADGET=$8003001D,
GA_ENDGADGET=$80030014,
GA_GZZGADGET=$8003000F,
CUSTOMGADGET=5,
STRGADGET=4,
PROPGADGET=3,
BOOLGADGET=1,
REQGADGET=$1000,
GZZGADGET=$2000,
SCRGADGET=$4000,
SYSGADGET=$8000,
ACTIVEGADGET=$4000,
ENDGADGET=4,
GIMMEZEROZERO=$400,
LABELSTRING=$1000,
GA_INTUITEXT=$80030022,
GA_TEXT=$80030009,
LABELITEXT=0,
LAYOUTA_LAYOUTOBJ=$80038001,
RMBTRAP=$10000,
INREQUEST=$4000,
DISKREMOVED=$10000,
IA_RECESSED=$80020015,
SDRAGGING=$30,
WDRAGGING=$20,
RAWKEY=$400,
GA_TOGGLESELECT=$8003001C,
TOGGLESELECT=$100,
SHADOWPEN=4,
IA_SHADOWPEN=$80020009,
IA_BGPEN=$80020006,
IA_FGPEN=$80020005,
LONGINT=$800,
GADGHBOX=1,
BLOCKPEN=1,
GA_DRAWINFO=$80030021,
GA_SPECIALINFO=$80030012,
GADGHNONE=3,
IA_TOP=$80020002,
PGA_TOP=$80031009,
GA_TOP=$80030003,
```

```
PGA_VISIBLE=$80031008,  
GADGHCOMP=0,  
IA_MODE=$80020012,  
HASZOOM=$20000000,  
PGA_FREEDOM=$80031001,  
GA_SELECTED=$80030013,  
GA_RELBOTTOM=$80030004,  
SIZEBBOTTOM=$20,  
SELECTED=$80,  
GRELBOTTOM=8,  
IA_HEIGHT=$80020004,  
GA_HIGHLIGHT=$8003000D,  
GA_RELHEIGHT=$80030008,  
GA_HEIGHT=$80030007,  
GA_RELRIGHT=$80030002,  
SIZEBRIGHT=16,  
STRINGRIGHT=$400,  
STRINGCENTER=$200,  
GRELHEIGHT=$40,  
GRELRIGHT=16,  
SHINEPEN=3,  
WINDOWSIZING=1,  
SIZING=16,  
REQSET=$80,  
PGA_BORDERLESS=$80031002,  
BORDERLESS=$800,  
IA_LEFT=$80020001,  
GA_LEFT=$80030001,  
STRINGLEFT=0,  
IA_EDGESONLY=$80020017,  
WINDOWTICKED=$4000000,  
PGA_TOTAL=$80031007,  
VISITOR=$80000000,  
GADGETUP=$40,  
NUMDRIPENS=12,  
IA_PENS=$8002000E,  
LONELYMESSAGE=$800000000,  
WBENCHMESSAGE=$20000,  
WINDOWDEPTH=4,  
PGA_VERTBODY=$80031006,  
PGA_HORIZBODY=$80031004,  
LAYOUTA_SPACING=$80038002,  
WBENCHWINDOW=$2000000,  
CHANGEWINDOW=$2000000,  
INTUITICKS=$400000,  
INACTIVIEWINDOW=$80000,  
ACTIVIEWINDOW=$40000,  
CLOSEWINDOW=$200,  
REFRESHWINDOW=4,  
PGA_VERTPOT=$80031005,  
IA_LINEWIDTH=$80020008,  
IA_WIDTH=$80020003,  
GA_RELWIDTH=$80030006,  
GA_WIDTH=$80030005,  
GRELWIDTH=$20,  
MENUHELP=$1000000,  
IA_DOUBLEEMBOSS=$80020016,
```

```

IA_OUTLINE=$80020014,
GA_BOTTOMBORDER=$8003001B,
GA_TOPBORDER=$8003001A,
GA_LEFTBORDER=$80030019,
GA_RIGHTBORDER=$80030018,
GA_BORDER=$8003000B,
BOTTOMBORDER=$80,
TOPBORDER=$40,
LEFTBORDER=$20,
RIGHTBORDER=16,
IA_APATTERN=$80020010,
IA_APATSIZE=$80020011,
NEWSIZE=2,
GA_NEXT=$80030020,
SUPER_BITMAP=$80,
GA_PREVIOUS=$8003001F

```

1.135 pointerclass.m

```

CONST POINTERA_DUMMY=$80039000,
POINTERYRESN_SCREENRESASPECT=5,
POINTERYRESN_HIGHASPECT=3,
POINTERXRESN_70NS=2,
POINTERYRESN_SCREENRES=4,
POINTERXRESN_SCREENRES=4,
POINTERA_YRESOLUTION=$80039006,
POINTERA_XRESOLUTION=$80039005,
POINTERYRESN_DEFAULT=0,
POINTERXRESN_DEFAULT=0,
POINTERYRESN_HIGH=2,
POINTERXRESN_35NS=3,
POINTERXRESN_LORES=5,
POINTERA_YOFFSET=$80039003,
POINTERA_XOFFSET=$80039002,
POINTERXRESN_HIRES=6,
POINTERA_WORDWIDTH=$80039004,
POINTERA_BITMAP=$80039001,
POINTERXRESN_140NS=1

```

1.136 preferences.m

```

(----) OBJECT preferences
(  0)  fontheight:CHAR
(  1)  printerport:CHAR
(  2)  baudrate:INT
(  4)  keyrptspeed:timeval (or ARRAY OF timeval)
( 12)  keyrptdelay:timeval (or ARRAY OF timeval)
( 20)  doubleclick:timeval (or ARRAY OF timeval)
( 28)  pointermatrix[36]:ARRAY OF INT
(100)  xoffset:CHAR
(101)  yoffset:CHAR
(102)  color17:INT

```

```
( 104)    color18:INT
( 106)    color19:INT
( 108)    pointerticks:INT
( 110)    color0:INT
( 112)    color1:INT
( 114)    color2:INT
( 116)    color3:INT
( 118)    viewxoffset:CHAR
( 119)    viewyoffset:CHAR
( 120)    viewinitx:INT
( 122)    viewinity:INT
( 124)    enablecli:INT
( 126)    printertype:INT
( 128)    printerfilename[30]:ARRAY OF CHAR
( 158)    printpitch:INT
( 160)    printquality:INT
( 162)    printspacing:INT
( 164)    printleftmargin:INT
( 166)    printrightmargin:INT
( 168)    printimage:INT
( 170)    printaspect:INT
( 172)    printshade:INT
( 174)    printthreshold:INT
( 176)    papersize:INT
( 178)    paperlength:INT
( 180)    papertype:INT
( 182)    serrrbits:CHAR
( 183)    serstopbuf:CHAR
( 184)    serparshk:CHAR
( 185)    lacewb:CHAR
( 186)    pad[12]:ARRAY OF CHAR
( 198)    prtdevname[16]:ARRAY OF CHAR
( 214)    defaultprtunit:CHAR
( 215)    defaultserunit:CHAR
( 216)    rowsizechange:CHAR
( 217)    columnsizechange:CHAR
( 218)    printflags:INT
( 220)    printmaxwidth:INT
( 222)    printmaxheight:INT
( 224)    printdensity:CHAR
( 225)    printxoffset:CHAR
( 226)    wb_width:INT
( 228)    wb_height:INT
( 230)    wb_depth:CHAR
( 231)    ext_size:CHAR
(----) ENDOBJECT      /* SIZEOF=232 */
```

```
CONST SPARITY_EVEN=1,
      TOPAZ_EIGHTY=8,
      ASPECT_HORIZ=0,
      IMAGE_NEGATIVE=1,
      IMAGE_POSITIVE=0,
      FINE=$800,
      BAUD_9600=5,
      MOUSE_ACCEL=$8000,
      DIAB_ADV_D25=5,
      CORRECT_GREEN=2,
```

```
SHSHAKE_BITS=15,
SPARITY_BITS=$F0,
SBUF_SIZE_BITS=15,
SSTOP_BITS=$F0,
SWRITE_BITS=15,
SREAD_BITS=$F0,
US_LETTER=0,
LETTER=$100,
SINGLE=$80,
SPARITY_MARK=3,
DIAB_630=4,
HP_LASERJET=11,
ANTI_ALIAS=$800,
MULTIPLY_DIMENSIONS=$80,
PIXEL_DIMENSIONS=$40,
ABSOLUTE_DIMENSIONS=$20,
BOUNDED_DIMENSIONS=16,
IGNORE_DIMENSIONS=0,
BAUD_19200=6,
SPARITY_SPACE=4,
SBUF_2048=2,
TOPAZ_SIXTY=9,
DITHERING_MASK=$600,
DIMENSIONS_MASK=$F0,
CORRECT_RGB_MASK=7,
DIAB_C_150=6,
CUSTOM=$40,
W_TRACTOR=$30,
N_TRACTOR=$20,
SHADE_BW=0,
BAUD_300=1,
CENTER_IMAGE=8,
CORRECT_BLUE=4,
DRAFT=0,
SBUF_8000=4,
SCREEN_DRAG=$4000,
FLOYD_DITHERING=$400,
HALFTONE_DITHERING=$200,
ORDERED_DITHERING=0,
BAUD_4800=4,
SBUF_4096=3,
US_LEGAL=16,
SHSHAKE_XON=0,
SPARITY_ODD=2,
CBM_MPS1000=3,
SHADE_COLOR=2,
SBUF_16000=5,
EURO_A0=$50,
EURO_A1=$60,
EURO_A2=$70,
EURO_A3=$80,
EURO_A4=$90,
EURO_A5=$A0,
ELITE=$400,
EPSON_JX_80=8,
EURO_A6=$B0,
EURO_A7=$C0,
```

```

CORRECT_RED=1,
EURO_A8=$D0,
HP_LASERJET_PLUS=12,
SHSHAKE_NONE=2,
SPARITY_NONE=0,
GREY_SCALE2=$1000,
SBUF_1024=1,
SERIAL_PRINTER=1,
PARALLEL_PRINTER=0,
LW_RESERVED=1,
BROTHER_15XL=2,
FANFOLD=0,
BAUD_2400=3,
EIGHT_LPI=$200,
SIX_LPI=0,
ASPECT_VERT=1,
BAUD_MIDI=7,
SHSHAKE_RTS=1,
SBUF_512=0,
EPSON=7,
LACEWB=1,
QUME_LP_20=10,
ALPHA_P_101=1,
OKIMATE_20=9,
BAUD_1200=2,
INTEGER_SCALING=$100,
PICA=0,
POINTERSIZE=$24,
DEVNAME_SIZE=16,
FILENAME_SIZE=30,
SHADE_GREYSCALE=1,
BAUD_110=0,
CUSTOM_NAME=0

```

1.137 screens.m

```

(----) OBJECT screenbuffer
( 0)  bitmap:PTR TO bitmap
( 4)  dbufinfo:PTR TO dbufinfo
(----) ENDOBJECT      /* SIZEOF=8 */

(----) OBJECT pubscreennode
( 0)  ln:ln (or ARRAY OF ln)
( 14) screen:PTR TO screen
( 18) flags:INT
( 20) size:INT
( 22) visitorcount:INT
( 24) sigtask:PTR TO tc
( 28) sigbit:CHAR
( 29) pad1:CHAR
(----) ENDOBJECT      /* SIZEOF=30 */

(----) OBJECT extnewscreen
( 0)  leftedge:INT
( 2)  topedge:INT

```

```

(  4)  width:INT
(  6)  height:INT
(  8)  depth:INT
( 10)  detailpen:CHAR
( 11)  blockpen:CHAR
( 12)  viewmodes:INT
( 14)  type:INT
( 16)  font:PTR TO textattr
( 20)  defaulttitle:PTR TO CHAR
( 24)  gadgets:PTR TO gadget
( 28)  custombitmap:PTR TO bitmap
( 32)  extension:PTR TO tagitem
(----) ENDOBJECT      /* SIZEOF=36 */

(----) OBJECT ns
(  0)  leftedge:INT
(  2)  topedge:INT
(  4)  width:INT
(  6)  height:INT
(  8)  depth:INT
( 10)  detailpen:CHAR
( 11)  blockpen:CHAR
( 12)  viewmodes:INT
( 14)  type:INT
( 16)  font:PTR TO textattr
( 20)  defaulttitle:PTR TO CHAR
( 24)  gadgets:PTR TO gadget
( 28)  custombitmap:PTR TO bitmap
(----) ENDOBJECT      /* SIZEOF=32 */

(----) OBJECT screen
(  0)  nextscreen:PTR TO screen
(  4)  firstwindow:PTR TO window
(  8)  leftedge:INT
( 10)  topedge:INT
( 12)  width:INT
( 14)  height:INT
( 16)  mousey:INT
( 18)  mousex:INT
( 20)  flags:INT
( 22)  title:PTR TO CHAR
( 26)  defaulttitle:PTR TO CHAR
( 30)  barheight:CHAR
( 31)  barvborder:CHAR
( 32)  barhborder:CHAR
( 33)  menuvborder:CHAR
( 34)  menuhborder:CHAR
( 35)  wbortop:CHAR
( 36)  wborleft:CHAR
( 37)  wborright:CHAR
( 38)  wborbottom:CHAR
( 40)  font:PTR TO textattr
( 44)  viewport:viewport (or ARRAY OF viewport)
( 84)  rastport:rastport (or ARRAY OF rastport)
(184)  bitmap:bitmap (or ARRAY OF bitmap)
(224)  layerinfo:layer_info (or ARRAY OF layer_info)
(326)  firstgadget:PTR TO gadget

```

```
( 330)    detailpen:CHAR
( 331)    blockpen:CHAR
( 332)    savecolor0:INT
( 334)    barlayer:PTR TO layer
( 338)    extdata:PTR TO CHAR
( 342)    userdata:PTR TO CHAR
(----) ENDOBJECT      /* SIZEOF=346 */

(----) OBJECT drawinfo
(   0)    version:INT
(   2)    numpens:INT
(   4)    pens:PTR TO INT
(   8)    font:PTR TO textfont
(  12)    depth:INT
(  14)    resolutionx:INT
(  16)    resolutiony:INT
(  18)    flags:LONG
(  22)    checkmark:PTR TO image
(  26)    amigakey:PTR TO image
(  30)    longreserved[5]:ARRAY OF LONG
(----) ENDOBJECT      /* SIZEOF=50 */

CONST SA_SYSFONT=$8000002C,
      SA_FONT=$8000002B,
      SA_DETAILPEN=$80000026,
      BARDETAILPEN=9,
      FILLPEN=5,
      DETAILPEN=0,
      SA_COLOMAPENTRIES=$8000003C,
      SA_TYPE=$8000002D,
      SCREENTYPE=15,
      PSNF_PRIVATE=1,
      OSCAN_STANDARD=2,
      SPOS_RELATIVE=0,
      SA_DUMMY=$80000020,
      SDEPTH_TOBACK=1,
      POPPUBSCREEN=2,
      CUSTOMSCREEN=15,
      PUBLICSCREEN=2,
      WBENCHSCREEN=1,
      SA_ERRORCODE=$8000002A,
      SA_PUBTASK=$80000031,
      SA_AUTOSCROLL=$80000039,
      AUTOSCROLL=$4000,
      SPOS_ABSOLUTE=1,
      OSERR_NOMEM=3,
      OSERR_ATTACHFAIL=8,
      NS_EXTENDED=$1000,
      SA_DISPLAYID=$80000032,
      SA_MINIMIZEISG=$80000049,
      SA_QUIET=$80000038,
      SCREENQUIET=$100,
      SA_VIDEOCONTROL=$80000044,
      SDEPTH_INFAMILY=2,
      SA_INTERLEAVED=$80000042,
      HIGHLIGHTTEXTPEN=8,
      BACKGROUNDPEN=7,
```

```
FILLTEXTPEN=6,
TEXTPEN=2,
OSERR_NOCHIPS=2,
PEN_C0=$FEFF,
PEN_C1=$FEFE,
PEN_C2=$FEFD,
PEN_C3=$FEFC,
SDEPTH_TOFRONT=0,
OSERR_NOTAVAILABLE=9,
SA_DRAGGABLE=$8000003E,
SA_PUBSIG=$80000030,
SA_COLORS=$80000029,
SPOS_FORCEDRAG=4,
BARTRIMPEN=11,
OSCAN_TEXT=1,
SA_OBSOLETE1=$80000035,
PENSHARED=$400,
SA_SHOWTITLE=$80000036,
SA_TITLE=$80000028,
SHOWTITLE=16,
SHANGHAI=1,
SHADOWPEN=4,
SA_BLOCKPEN=$80000027,
BARBLOCKPEN=10,
BLOCKPEN=1,
OSERR_NOCHIPMEM=4,
BEEPING=$20,
SA_COLORS32=$80000043,
SA_PARENT=$8000003D,
SA_EXCLUSIVE=$8000003F,
SA_TOP=$80000022,
SPOS_MAKEVISIBLE=2,
SA_FULLPALETTE=$8000003B,
OSERR_UNKNOWNMODE=6,
SA_LIKEWORKBENCH=$80000047,
SA_HEIGHT=$80000024,
STDSCREENHEIGHT=-1,
SA_RESERVED=$80000048,
SHINEPEN=3,
SA_BACKCHILD=$80000046,
SA_FRONTCHILD=$80000045,
OSERR_PUBNOTUNIQUE=5,
SA_LEFT=$80000021,
SDEPTH_CHILDONLY=2,
OSERR_NOMONITOR=1,
SA_SHAREPENS=$80000040,
SA_PENS=$8000003A,
NUMDRIPENS=12,
OSCAN_VIDEO=4,
SA_OVERSCAN=$80000034,
SCREENHIRES=$200,
SA_DEPTH=$80000025,
SA_BEHIND=$80000037,
SCREENBEHIND=$80,
DRIB_NEWLOOK=0,
DRIF_NEWLOOK=1,
SA_WIDTH=$80000023,
```

```

STDSCREENWIDTH=-1,
OSCAN_MAX=3,
SA_DCLIP=$80000033,
SA_BACKFILL=$80000041,
DRI_VERSION=2,
SB_COPY_BITMAP=2,
SB_SCREEN_BITMAP=1,
SA_BITMAP=$8000002E,
CUSTOMBITMAP=$40,
OSERR_TOODEEP=7,
MAXPUBSCREENNAME=$8B,
SA_PUBNAME=$8000002F

```

1.138 sghooks.m

```

(----) OBJECT sgwork
( 0)   gadget:PTR TO gadget
( 4)   stringinfo:PTR TO stringinfo
( 8)   workbuffer:PTR TO CHAR
(12)   prevbuffer:PTR TO CHAR
(16)   modes:LONG
(20)   ievent:PTR TO inputevent
(24)   code:INT
(26)   bufferpos:INT
(28)   numchars:INT
(30)   actions:LONG
(34)   longint:LONG
(38)   gadgetinfo:PTR TO gadgetinfo
(42)   editop:INT
(----) ENDOBJECT      /* SIZEOF=44 */

(----) OBJECT stringextend
( 0)   font:PTR TO textfont
( 4)   pens[2]:ARRAY OF CHAR
( 6)   activepens[2]:ARRAY OF CHAR
( 8)   initialmodes:LONG
(12)   edithook:PTR TO hook
(16)   workbuffer:PTR TO CHAR
(20)   reserved[4]:ARRAY OF LONG
(----) ENDOBJECT      /* SIZEOF=36 */

CONST SGAF_PREVACTIVE=$40,
      SGAB_PREVACTIVE=6,
      SGA_PREVACTIVE=$40,
      SGAF_NEXTACTIVE=$20,
      SGAB_NEXTACTIVE=5,
      SGA_NEXTACTIVE=$20,
      EO_SPECIAL=13,
      SGAF_REDISPLAY=16,
      SGAB_REDISPLAY=4,
      SGA_REDISPLAY=16,
      SGAF_BEEP=4,
      SGAB_BEEP=2,
      SGA_BEEP=4,
      EO_BADFORMAT=9,

```

```
SGH_KEY=1,  
EO_DELFORWARD=3,  
EO_DELBACKWARD=2,  
SGMF_FIXEDFIELD=2,  
SGMB_FIXEDFIELD=1,  
SGM_FIXEDFIELD=2,  
SGAF_END=2,  
SGAB_END=1,  
SGA_END=2,  
SGAF_USE=1,  
SGAB_USE=0,  
SGA_USE=1,  
EO_BIGCHANGE=10,  
SGH_CLICK=2,  
EO_CLEAR=12,  
EO_RESET=6,  
SGMF_REPLACE=1,  
SGMB_REPLACE=0,  
SGM_REPLACE=1,  
EO_MOVECURSOR=4,  
EO_ENTER=5,  
EO_NOOP=1,  
SGAF_REUSE=8,  
SGAB_REUSE=3,  
SGA_REUSE=8,  
EO_UNDO=11,  
SGMF_NOFILTER=4,  
SGMB_NOFILTER=2,  
SGM_NOFILTER=4,  
EO_INSERTCHAR=8,  
EO_REPLACECHAR=7,  
SGMF_EXITHELP=$80,  
SGMB_EXITHELP=7,  
SGM_EXITHELP=$80
```

1.139 libraries

amigaguide.m	asl.m
commodities.m	configregs.m
configvars.m	cybergraphics.m
diskfont.m	expansion.m
expansionbase.m	gadtools.m
gtlayout.m	iff.m
iffparse.m	locale.m
lowlevel.m	mathieeesp.m
mathlibrary.m	mathresource.m
midi.m	mui.m
muip.m	nofrag.m
nonvolatile.m	ppbase.m
realtime.m	reqbase.m
reqtools.m	translator.m

1.140 amigaguide.m

```
(----) OBJECT opexpungenode
(  0)  methodid:LONG
(  4)  attrs:PTR TO tagitem
(----) ENDOBJECT      /* SIZEOF=8 */

(----) OBJECT opnodeio
(  0)  methodid:LONG
(  4)  attrs:PTR TO tagitem
(  8)  node:PTR TO CHAR
( 12)  filename:PTR TO CHAR
( 16)  docbuffer:PTR TO CHAR
( 20)  buflen:LONG
( 24)  flags:LONG
(----) ENDOBJECT      /* SIZEOF=28 */

(----) OBJECT opfindhost
(  0)  methodid:LONG
(  4)  attrs:PTR TO tagitem
(  8)  node:PTR TO CHAR
( 12)  toc:PTR TO CHAR
( 16)  title:PTR TO CHAR
( 20)  next:PTR TO CHAR
( 24)  prev:PTR TO CHAR
(----) ENDOBJECT      /* SIZEOF=28 */

(----) OBJECT amigaguidehost
(  0)  dispatcher:hook (or ARRAY OF hook)
( 20)  reserved:LONG
( 24)  flags:LONG
( 28)  usecnt:LONG
( 32)  systemdata:LONG
( 36)  userdata:LONG
(----) ENDOBJECT      /* SIZEOF=40 */

(----) OBJECT xref
(  0)  node:ln (or ARRAY OF ln)
( 14)  pad:INT
( 16)  df:LONG
( 20)  file:PTR TO CHAR
( 24)  name:PTR TO CHAR
( 28)  line:LONG
(----) ENDOBJECT      /* SIZEOF=32 */

(----) OBJECT newamigaguide
(  0)  lock:LONG
(  4)  name:PTR TO CHAR
(  8)  screen:PTR TO screen
( 12)  pubscreen:PTR TO CHAR
( 16)  hostport:PTR TO CHAR
( 20)  clientport:PTR TO CHAR
( 24)  basename:PTR TO CHAR
( 28)  flags:LONG
( 32)  context:PTR TO LONG
( 36)  node:PTR TO CHAR
```

```
( 40)    line:LONG
( 44)    extens:PTR TO tagitem
( 48)    client:LONG
(----) ENDOBJECT      /* SIZEOF=52 */

(----) OBJECT amigaguidemsg
(  0)    msg:mn (or ARRAY OF mn)
( 20)    type:LONG
( 24)    data:LONG
( 28)    dsize:LONG
( 32)    dtype:LONG
( 36)    pri_ret:LONG
( 40)    sec_ret:LONG
( 44)    system1:LONG
( 48)    system2:LONG
(----) ENDOBJECT      /* SIZEOF=52 */

CONST HTF_NOACTIVATE=$20,
      AGA_ACTIVATE=$80000003,
      HTERR_CANT_CREATE_PORT=$6C,
      AGA_AREXXPORT=$80000009,
      APSH_TOOL_ID=$2AF8,
      XR_DEFINE=8,
      HTNA_HELPGROUP=$80000005,
      AGA_HELPGROUP=$80000005,
      HM_CLOSENODE=3,
      HM_OPENNODE=2,
      HM_FINDNODE=1,
      HTERR_CANT_OPEN_NODE=$67,
      HTERR_CANT_FIND_NODE=$66,
      HTF_CACHE_NODE=4,
      AGA_WORKNODE=$8000000C,
      HTNF_DONE=$40,
      HTNA_DUMMY=$80000000,
      AGA_DUMMY=$80000000,
      TOOLCMDID=$2B02,
      XR_TYPEDEF=7,
      HTNA_SCREEN=$80000001,
      TOOLCMDREPLYID=$2B03,
      HTNA_RECTANGLE=$80000003,
      SHUTDOWNMSGID=$2AFC,
      STARTUPMSGID=$2AF9,
      SHUTDOWNTOOLID=$2B04,
      INACTIVETOOLID=$2B00,
      ACTIVETOOLID=$2AFF,
      DEACTIVATETOOLID=$2AFE,
      ACTIVATETOOLID=$2AFD,
      LOGOUTTOOLID=$2AFB,
      LOGINTOOLID=$2AFA,
      HTH_OPEN=0,
      XR_MACRO=4,
      XR_FIELD=6,
      HTFC_SYSGADS=$80000000,
      HTERR_CANT_OPEN_DATABASE=$65,
      HTF_LOAD_INDEX=1,
      HTF_LOAD_ALL=2,
      HTNF_CLEAN=$20,
```

```

XR_FUNCTION=1,
HTF_CACHE_DB=8,
XR_GENERIC=0,
HTNF_ASCII=8,
HTH_CLOSE=1,
XR_STRUCT=5,
AGA_CONTEXT=$80000004,
AGA_WORKPATH=$8000000B,
AGA_PATH=$80000001,
HTNF_RESERVED1=2,
AGA_RESERVED1=$80000006,
HTNF_RESERVED2=4,
AGA_RESERVED2=$80000007,
HTNF_RESERVED3=16,
AGA_RESERVED3=$80000008,
AGA_XREFLIST=$80000002,
TOOLSTATUSID=$2B01,
XR_COMMAND=2,
HTERR_INVALID_COMMAND=$69,
HTERR_KEYWORD_NOT_FOUND=$71,
HTF_UNIQUE=16,
HTERR_CANT_COMPLETE=$6A,
HTNA_PENS=$80000002,
HTERR_NOT_ENOUGH_MEMORY=$64,
HTERR_PORT_CLOSED=$6B,
HTNF_KEEP=1,
HTERR_CANT_OPEN_WINDOW=$68,
XR_INCLUDE=3,
AGA_AREXXPORTNAME=$8000000A,
HM_EXPUNGE=10

```

1.141 asl.m

```

(----) OBJECT displaymode
(  0)   ln:ln (or ARRAY OF ln)
( 14)   dimensioninfo:dimensioninfo (or ARRAY OF dimensioninfo)
(102)   propertyflags:LONG
(----) ENDOBJECT      /* SIZEOF=106 */

(----) OBJECT screenmoderequester
(  0)   displayid:LONG
(  4)   displaywidth:LONG
(  8)   displayheight:LONG
( 12)   displaydepth:INT
( 14)   overscans:INT
( 16)   autoscroll:INT
( 18)   bitmapwidth:LONG
( 22)   bitmapheight:LONG
( 26)   leftedge:INT
( 28)   topedge:INT
( 30)   width:INT
( 32)   height:INT
( 34)   infoopened:INT
( 36)   infoleftedge:INT
( 38)   infotopedge:INT

```

```

( 40)    infowidth:INT
( 42)    infoheight:INT
( 44)    userdata:LONG
(----) ENDOBJECT      /* SIZEOF=48 */

(----) OBJECT fontrequester
(  0)    reserved0[8]:ARRAY OF CHAR
(  8)    attr:textattr (or ARRAY OF textattr)
( 16)    frontpen:CHAR
( 17)    backpen:CHAR
( 18)    drawmode:CHAR
( 19)    reserved1:CHAR
( 20)    userdata:LONG
( 24)    leftedge:INT
( 26)    topedge:INT
( 28)    width:INT
( 30)    height:INT
( 32)    tattr:tttextattr (or ARRAY OF tttextattr)
(----) ENDOBJECT      /* SIZEOF=44 */

(----) OBJECT filerequester
(  0)    reserved0[4]:ARRAY OF CHAR
(  4)    file:LONG
(  8)    drawer:LONG
( 12)    reserved1[10]:ARRAY OF CHAR
( 22)    leftedge:INT
( 24)    topedge:INT
( 26)    width:INT
( 28)    height:INT
( 30)    reserved2[2]:ARRAY OF CHAR
( 32)    numargs:LONG
( 36)    arglist:PTR TO wbarg
( 40)    userdata:LONG
( 44)    reserved3[8]:ARRAY OF CHAR
( 52)    pattern:PTR TO CHAR
(----) ENDOBJECT      /* SIZEOF=56 */

CONST ASL_DIR=$80080009,
      RF_DIR=8,
      ASLSM_DOOVERSCANTYPE=$80080070,
      ASLSM_INITIALOVERSCANTYPE=$80080068,
      FOF_PRIVATE=$20,
      RFF_PATGAD=1,
      FILE_PATGAD=1,
      FILB_PATGAD=0,
      ASL_HAIL=$80080001,
      ASL_EXTFLAGS1=$80080016,
      ASLFR_FLAGS1=$80080014,
      ASLSM_TEXTATTR=$80080033,
      ASLFO_TEXTATTR=$80080033,
      ASLFR_FLAGS2=$80080016,
      ASLFR_TEXTATTR=$80080033,
      ASL_DUMMY=$80080000,
      FONF_STYLES=4,
      FONB_STYLES=2,
      FIL1F_NOFILES=1,
      FIL1B_NOFILES=0,

```

```
ASL_FONTSTYLES=$8008000C,  
ASLSM_SCREEN=$80080028,  
ASLFO_SCREEN=$80080028,  
ASLFR_SCREEN=$80080028,  
ASLSM_DOAUTOSCROLL=$80080071,  
ASLSM_INITIALAUTOSCROLL=$80080069,  
RF_USERDATA=$28,  
ASLSM_USERDATA=$80080034,  
ASLFO_USERDATA=$80080034,  
ASLFR_USERDATA=$80080034,  
FRF_FILTERDRAWERS=2,  
FRB_FILTERDRAWERS=1,  
ASLFR_FILTERDRAWERS=$8008003F,  
ASLSM_INITIALDISPLAYID=$80080064,  
ASL_TOPEDGE=$80080004,  
ASL_LEFTEDGE=$80080003,  
RF_TOPEDGE=24,  
RF_LEFTEDGE=22,  
ASLSM_PROPERTYMASK=$80080073,  
ASLSM_INITIALINFOTOPEDGE=$8008006C,  
ASLSM_INITIALINFOLEFTEDGE=$8008006B,  
ASLSM_INITIALTOPEDGE=$80080004,  
ASLSM_INITIALLEFTEDGE=$80080003,  
ASLFO_INITIALTOPEDGE=$80080004,  
ASLFO_INITIALLEFTEDGE=$80080003,  
ASLFR_INITIALTOPEDGE=$80080004,  
ASLFR_INITIALLEFTEDGE=$80080003,  
ASL_FRONTPEN=$8008000E,  
FOF_DOFRONTPEN=1,  
FOB_DOFRONTPEN=0,  
ASLFO_MAXFRONTPEN=$80080042,  
ASLFO_DOFRONTPEN=$8008002C,  
ASLFO_INITIALFRONTPEN=$8008000E,  
ASL_CANCELTEXT=$80080013,  
ASL_OKTEXT=$80080012,  
ASLSM_NEGATIVETEXT=$80080013,  
ASLSM_POSITIVETEXT=$80080012,  
ASLSM_TITLETEXT=$80080001,  
ASLFO_NEGATIVETEXT=$80080013,  
ASLFO_POSITIVETEXT=$80080012,  
ASLFO_TITLETEXT=$80080001,  
ASLFR_NEGATIVETEXT=$80080013,  
ASLFR_POSITIVETEXT=$80080012,  
ASLFR_TITLETEXT=$80080001,  
ASL_SCREENMODEREQUEST=2,  
ASL_FONTREQUEST=1,  
ASL_FILEREQUEST=0,  
FOF_DOFONTSTYLE=4,  
FOB_DOFONTSTYLE=2,  
ASLFO_DOSTYLE=$8008002E,  
ASLFO_INITIALSTYLE=$8008000C,  
RFF_MULTISELECT=8,  
FILF_MULTISELECT=8,  
FILB_MULTISELECT=3,  
FRF_DOMULTISELECT=8,  
FRB_DOMULTISELECT=3,  
ASLFR_DOMULTISELECT=$8008002D,
```

```
FONF_BACKCOLOR=2,
FONF_FRONTCOLOR=1,
FONB_BACKCOLOR=1,
FONB_FRONTCOLOR=0,
RFF_DOCOLOR=$20,
ASLFR_INITIALDRAWER=$80080009,
ASL_BACKPEN=$8008000F,
FOF_DOBACKPEN=2,
FOB_DOBACKPEN=1,
ASLFO_MAXBACKPEN=$80080043,
ASLFO_DOBACKPEN=$8008002D,
ASLFO_INITIALBACKPEN=$8008000F,
ASL_MODELIST=$80080015,
RF_ARGLIST=$24,
ASLSM_CUSTOMSMLIST=$8008007B,
ASLFO_MODELIST=$80080015,
FONF_DOWILDFUNC=$80,
FONF_DOMSGFUNC=$40,
FONB_DOWILDFUNC=7,
FONB_DOMSGFUNC=6,
RFF_DOMSGFUNC=$40,
RFF_DOWILDFUNC=$80,
FILE_DOWILDFUNC=$80,
FILE_DOMSGFUNC=$40,
FILB_DOWILDFUNC=7,
FILB_DOMSGFUNC=6,
ASL_HOOKFUNC=$80080007,
ASLSM_FILTERFUNC=$8008007A,
ASLSM_INTUIMSGFUNC=$80080046,
FOF_FILTERFUNC=$80,
FOF_DOWILDFUNC=$80,
FOF_INTUIFUNC=$40,
FOF_DOMSGFUNC=$40,
FOB_FILTERFUNC=7,
FOB_INTUIFUNC=6,
ASLFO_HOOKFUNC=$80080007,
ASLFO_FILTERFUNC=$80080031,
ASLFO_INTUIMSGFUNC=$80080046,
FRE_INTUIFUNC=$40,
FRB_INTUIFUNC=6,
FRE_DOMSGFUNC=$40,
FRE_FILTERFUNC=$80,
FRB_FILTERFUNC=7,
FRE_DOWILDFUNC=$80,
ASLFR_HOOKFUNC=$80080007,
ASLFR_FILTERFUNC=$80080031,
ASLFR_INTUIMSGFUNC=$80080046,
FRE_DOPATTERNS=1,
FRB_DOPATTERNS=0,
ASLFR_DOPATTERNS=$8008002E,
RF_NUMARGS=$20,
FONF_DRAWMODE=8,
FONB_DRAWMODE=3,
FOF_DODRAWMODE=8,
FOB_DODRAWMODE=3,
ASLFO_DODRAWMODE=$8008002F,
ASLFO_INITIALDRAWMODE=$8008003B,
```

```
FRF_DOSAVEMODE=$20,
FRB_DOSAVEMODE=5,
ASLFR_DOSAVEMODE=$8008002C,
ASL_MAXHEIGHT=$80080011,
ASL_MINHEIGHT=$80080010,
ASL_FONTHEIGHT=$8008000B,
ASL_HEIGHT=$80080006,
RF_HEIGHT=28,
ASLSM_MAXHEIGHT=$80080077,
ASLSM_MINHEIGHT=$80080076,
ASLSM_DOHEIGHT=$8008006E,
ASLSM_INITIALDISPLAYHEIGHT=$80080066,
ASLSM_INITIALHEIGHT=$80080006,
ASLFO_MAXHEIGHT=$80080011,
ASLFO_MINHEIGHT=$80080010,
ASLFO_INITIALHEIGHT=$80080006,
ASLFR_INITIALHEIGHT=$80080006,
FRF_REJECTICONS=4,
FRB_REJECTICONS=2,
ASLFR_REJECTICONS=$8008003C,
FOF_FIXEDWIDTHONLY=16,
FOB_FIXEDWIDTHONLY=4,
ASLFO_FIXEDWIDTHONLY=$80080030,
FRF_DRAWERSONLY=1,
FRB_DRAWERSONLY=0,
ASLFR_DRAWERSONLY=$8008002F,
ASLFO_BACKPENS=$80080041,
ASLFO_FRONTPEIS=$80080040,
FIL1F_MATCHDIRS=2,
FIL1B_MATCHDIRS=1,
ASLSM_MAXDEPTH=$80080079,
ASLSM_MINDEPTH=$80080078,
ASLSM_DODEPTH=$8008006F,
ASLSM_INITIALDISPLAYDEPTH=$80080067,
ASLSM_INITIALINFOOPENED=$8008006A,
ASL_WINDOW=$80080002,
ASLSM_SLEEPWINDOW=$8008002B,
ASLSM_WINDOW=$80080002,
ASLFO_SLEEPWINDOW=$8008002B,
ASLFO_WINDOW=$80080002,
ASLFR_SLEEPWINDOW=$8008002B,
ASLFR_WINDOW=$80080002,
ASL_TB=$80080000,
ASL_FILE=$80080008,
RF_FILE=4,
ASLFR_INITIALFILE=$80080008,
FONF_FIXEDWIDTH=16,
FONB_FIXEDWIDTH=4,
ASL_WIDTH=$80080005,
RF_WIDTH=26,
ASLSM_MAXWIDTH=$80080075,
ASLSM_MINWIDTH=$80080074,
ASLSM_DOWIDTH=$8008006D,
ASLSM_INITIALDISPLAYWIDTH=$80080065,
ASLSM_INITIALWIDTH=$80080005,
ASLFO_INITIALWIDTH=$80080005,
ASLFR_INITIALWIDTH=$80080005,
```

```

FONF_NEWIDCMP=$20,
FONB_NEWIDCMP=5,
RFF_NEWIDCMP=16,
FILF_NEWIDCMP=16,
FILB_NEWIDCMP=4,
ASLSM_PRIVATEIDCMP=$8008002A,
FOF_PRIVATEIDCMP=$20,
FOB_PRIVATEIDCMP=5,
ASLFO_PRIVATEIDCMP=$8008002A,
FRF_PRIVATEIDCMP=16,
FRB_PRIVATEIDCMP=4,
ASLFR_PRIVATEIDCMP=$8008002A,
FILE_SAVE=$20,
FILB_SAVE=5,
ASL_PATTERN=$8008000A,
ASLFR_ACCEPTPATTERN=$8008003E,
ASLFR_REJECTPATTERN=$8008003D,
ASLFR_INITIALPATTERN=$8008000A,
ASLFO_INITIALSIZE=$8008000B,
RF_PAT=$34,
ASLSM_LOCALE=$80080032,
ASLFO_LOCALE=$80080032,
ASLFR_LOCALE=$80080032,
ASL_FUNCFLAGS=$80080014,
ASL_FONTFLAGS=$8008000D,
ASL_FONTNAME=$8008000A,
ASLSM_PROPERTYFLAGS=$80080072,
ASLSM_PUBSCREENNAME=$80080029,
ASLFO_FLAGS=$80080014,
ASLFO_INITIALFLAGS=$8008000D,
ASLFO_INITIALNAME=$8008000A,
ASLFO_PUBSCREENNAME=$80080029,
ASLFR_PUBSCREENNAME=$80080029

```

```
#define ASLNAME/0
```

1.142 commodities.m

```

(----) OBJECT inputxpression
( 0)   version:CHAR
( 1)   class:CHAR
( 2)   code:INT
( 4)   codemask:INT
( 6)   qualifier:INT
( 8)   qualmask:INT
(10)   qualsame:INT
(----) ENDOBJECT      /* SIZEOF=12 */

(----) OBJECT newbroker
( 0)   version:CHAR
( 1)   reservel:CHAR
( 2)   name:PTR TO CHAR
( 6)   title:PTR TO CHAR
(10)   descr:PTR TO CHAR
(14)   unique:INT

```

```
( 16)  flags:INT
( 18)  pri:CHAR
( 19)  reserve2:CHAR
( 20)  port:PTR TO mp
( 24)  reservedchannel:INT
(----) ENDOBJECT      /* SIZEOF=26 */
```

```
CONST CXCMD_KILL=23,
      COERR_BADTYPE=8,
      CXCMD_DISAPPEAR=21,
      CXCMD_APPEAR=19,
      CX_INVALID=0,
      CX_BROKER=6,
      COERR_ISNULL=1,
      CBD_DESCLLEN=$28,
      IXSYM_ALTMASK=$30,
      IXSYM_CAPSMASK=7,
      IXSYM_SHIFTMASK=3,
      CXM_IEVENT=$20,
      CX_CUSTOM=8,
      COF_SHOW_HIDE=4,
      CXCMD_ENABLE=17,
      CXCMD_DISABLE=15,
      IXSYM_ALT=4,
      CX_SIGNAL=4,
      CX_ZERO=9,
      CBD_TITLELEN=$28,
      CBD_NAMELEN=24,
      CBERR_SYSERR=1,
      IXSYM_CAPS=2,
      IXSYM_SHIFT=1,
      CXM_COMMAND=$40,
      CXCMD_LIST_CHG=27,
      CXCMD_UNIQUE=25,
      NBU_UNIQUE=1,
      NBU_DUPLICATE=0,
      CBERR_OK=0,
      IX_NORMALQUALS=$7FFF,
      COERR_BADFILTER=4,
      CX_TYPEFILTER=2,
      CX_FILTER=1,
      CX_TRANSLATE=5,
      CBERR_DUP=2,
      CX_DEBUG=7,
      COERR_NULLATTACH=2,
      NBU_NOTIFY=2,
      CBERR_VERSION=3,
      IX_VERSION=2,
      NB_VERSION=5,
      CX_SEND=3
```

```
#define NULL_IX/1
#define CxFilter/1
#define CxTranslate/1
#define CxDebug/1
#define CxCustom/2
#define CxSender/2
```

```
#define CxSignal/2
```

1.143 configregs.m

```
(----) OBJECT diagarea
(  0)  config:CHAR
(  1)  flags:CHAR
(  2)  size:INT
(  4)  diagpoint:INT
(  6)  bootpoint:INT
(  8)  name:INT
( 10)  reserved01:INT
( 12)  reserved02:INT
(----) ENDOBJECT      /* SIZEOF=14 */

(----) OBJECT expansioncontrol
(  0)  interrupt:CHAR
(  1)  z3_highbase:CHAR
(  2)  baseaddress:CHAR
(  3)  shutup:CHAR
(  4)  reserved14:CHAR
(  5)  reserved15:CHAR
(  6)  reserved16:CHAR
(  7)  reserved17:CHAR
(  8)  reserved18:CHAR
(  9)  reserved19:CHAR
( 10)  reserved1a:CHAR
( 11)  reserved1b:CHAR
( 12)  reserved1c:CHAR
( 13)  reserved1d:CHAR
( 14)  reserved1e:CHAR
( 15)  reserved1f:CHAR
(----) ENDOBJECT      /* SIZEOF=16 */

(----) OBJECT expansionrom
(  0)  type:CHAR
(  1)  product:CHAR
(  2)  flags:CHAR
(  3)  reserved03:CHAR
(  4)  manufacturer:INT
(  6)  serialnumber:LONG
( 10)  initdiagvec:INT
( 12)  reserved0c:CHAR
( 13)  reserved0d:CHAR
( 14)  reserved0e:CHAR
( 15)  reserved0f:CHAR
(----) ENDOBJECT      /* SIZEOF=16 */

CONST DAC_NEVER=0,
      ERFF_ZORRO_III=16,
      ERFB_ZORRO_III=4,
      ERT_ZORROIII=$80,
      ERTF_DIAGVALID=16,
      ERTB_DIAGVALID=4,
      ERT_TYPEBIT=6,
```

```
ERT_ZORROII=$C0,
EZ3_CONFIGAREAEND=$7FFFFFFF,
DAC_BINDTIME=$20,
DAC_CONFIGTIME=16,
DAC_BOOTTIME=$30,
EZ3_SIZEGRANULARITY=$80000,
ERFF_EXTENDED=$20,
ERFB_EXTENDED=5,
ERT_Z3_SSBIT=0,
ECIF_INTERRUPTING=$80,
ECIB_INTERRUPTING=7,
ERFF_MEMSPACE=$80,
ERFB_MEMSPACE=7,
ERT_Z3_SSMASK=15,
ERT_MEMMASK=7,
ERT_TYPEMASK=$C0,
E_SLOTMASK=$FFFF,
E_MEMORYBASE=$200000,
EZ3_EXPANSIONBASE=$FF000000,
E_EXPANSIONBASE=$E80000,
ECIF_INTENA=2,
ECIB_INTENA=1,
ECIF_RESET=8,
ECIB_RESET=3,
EZ3_CONFIGAREA=$40000000,
E_MEMORYSLOTS=$80,
E_EXPANSIONSLOTS=8,
E_SLOTSHIFT=16,
ERTF_MEMLIST=$20,
ERTB_MEMLIST=5,
ECIF_INT7PEND=$40,
ECIF_INT6PEND=$20,
ECIF_INT2PEND=16,
ECIB_INT7PEND=6,
ECIB_INT6PEND=5,
ECIB_INT2PEND=4,
ERT_MEMBIT=0,
ERFF_NOSHUTUP=$40,
ERFB_NOSHUTUP=6,
DAC_BUSWIDTH=$C0,
DAC_WORDWIDE=$80,
DAC_BYTEWIDE=$40,
DAC_NIBBLEWIDE=0,
ERT_Z3_SSSIZE=4,
ERT_MEMSIZE=3,
ERT_TYPESIZE=2,
E_MEMORYSIZE=$800000,
E_EXPANSIONSIZE=$80000,
E_SLOTSIZE=$10000,
ERTF_CHAINEDCONFIG=8,
ERTB_CHAINEDCONFIG=3,
ERT_NEWBOARD=$C0
```

```
#define ERT_SLOTSNEEDED/1
#define ERT_MEMNEEDED/1
#define EC_MEMADDR/1
```

1.144 configvars.m

```
(----) OBJECT currentbinding
(  0)  configdev:PTR TO configdev
(  4)  filename:PTR TO CHAR
(  8)  productstring:PTR TO CHAR
( 12)  tooltypes:PTR TO LONG
(----) ENDOBJECT      /* SIZEOF=16 */

(----) OBJECT configdev
(  0)  node:ln (or ARRAY OF ln)
( 14)  flags:CHAR
( 15)  pad:CHAR
( 16)  rom:expansionrom (or ARRAY OF expansionrom)
( 32)  boardaddr:LONG
( 36)  boardsize:LONG
( 40)  slotaddr:INT
( 42)  slotsize:INT
( 44)  driver:LONG
( 48)  nextcd:PTR TO configdev
( 52)  unused[4]:ARRAY OF LONG
(----) ENDOBJECT      /* SIZEOF=68 */

CONST CDF_PROCESSED=8,
      CDB_PROCESSED=3,
      CDF_SHUTUP=1,
      CDB_SHUTUP=0,
      CDF_CONFIGME=2,
      CDB_CONFIGME=1,
      CDF_BADMEMORY=4,
      CDB_BADMEMORY=2
```

1.145 cybergraphics.m

```
(----) OBJECT cybermodenode
(  0)  node:PTR TO LONG
(  4)  modetext[32]:ARRAY OF CHAR
( 36)  displayid:LONG
( 40)  width:LONG
( 44)  height:LONG
( 48)  depth:LONG
( 52)  displaytaglist:PTR TO LONG
(----) ENDOBJECT      /* SIZEOF=56 */

CONST PIXFMT_RGB24=9,
      CYBRMATTR_BPPIX=$80000002,
      CYBRIDATTR_BPPIX=$80000005,
      CYBRMREQ_CModelArray=$80040006,
      PIXFMT_ARGB32=11,
      PIXFMT_RGB15PC=3,
      PIXFMT_BGR15PC=4,
      CYBRMREQ_MinHeight=$80040004,
      CYBRMREQ_MaxHeight=$80040005,
      CYBRBIDTG_NominalHeight=$80050002,
```



```

PIXFMT_LUT8=0,
CYBRMREQ_MinDepth=$80040000,
CYBRMREQ_MaxDepth=$80040001,
CYBRBIDTG_Depth=$80050000,
CYBRMATTR_PIXFMT=$80000004,
CYBRIDATTR_PIXFMT=$80000001,
RECTFMT_RGBA=1,
CYBRMREQ_WinTitle=$80040014,
PIXFMT_RGB16PC=7,
PIXFMT_BGR16PC=8,
CYBRMREQ_MinWidth=$80040002,
CYBRMREQ_MaxWidth=$80040003,
CYBRBIDTG_NominalWidth=$80050001,
PIXFMT_BGR15=2,
PIXFMT_BGR16=6,
CYBRMATTR_XMOD=$80000001,
CYBRMATTR_DISPADR=$80000003,
PIXFMT_BGR24=10,
CYBRBIDTG_TB=$80050000,
CYBRMREQ_Screen=$8004001E,
RECTFMT_ARGB=2,
CYBRMATTR_HEIGHT=$80000006,
CYBRIDATTR_HEIGHT=$80000003,
CYBRBIDTG_MonitorID=$80050003,
RECTFMT_RGB=0,
PIXFMT_BGRA32=12,
CYBRMATTR_DEPTH=$80000007,
CYBRIDATTR_DEPTH=$80000004,
CYBRMREQ_OKText=$80040015,
CYBRMREQ_CancelText=$80040016,
CYBRMATTR_WIDTH=$80000005,
CYBRIDATTR_WIDTH=$80000002,
PIXFMT_RGB15=1,
PIXFMT_RGB16=5,
CYBRMREQ_TB=$80040000

```

1.146 diskfont.m

```

(----) OBJECT afh
( 0)   numentries:INT
(----) ENDOBJECT      /* SIZEOF=2 */

(----) OBJECT taf
( 0)   type:INT
( 2)   attr:tttextattr (or ARRAY OF tttextattr)
(----) ENDOBJECT      /* SIZEOF=14 */

(----) OBJECT af
( 0)   type:INT
( 2)   attr:textattr (or ARRAY OF textattr)
(----) ENDOBJECT      /* SIZEOF=10 */

(----) OBJECT diskfonthead
( 0)   df:ln (or ARRAY OF ln)
( 14)  fileid:INT

```

```

( 16)    revision:INT
( 18)    segment:LONG
( 22)    name[32]:ARRAY OF CHAR
( 54)    tf:textfont (or ARRAY OF textfont)
(----) ENDOBJECT      /* SIZEOF=106 */

(----) OBJECT fch
(  0)    fileid:INT
(  2)    numentries:INT
(----) ENDOBJECT      /* SIZEOF=4 */

(----) OBJECT tfc
(  0)    filename[254]:ARRAY OF CHAR
( 254)    tagcount:INT
( 256)    ysize:INT
( 258)    style:CHAR
( 259)    flags:CHAR
(----) ENDOBJECT      /* SIZEOF=260 */

(----) OBJECT fc
(  0)    filename[256]:ARRAY OF CHAR
( 256)    ysize:INT
( 258)    style:CHAR
( 259)    flags:CHAR
(----) ENDOBJECT      /* SIZEOF=260 */

CONST DFH_ID=$F80,
      OFCH_ID=$F03,
      TFCH_ID=$F02,
      FCH_ID=$F00,
      AFF_TTATTR=$10000,
      MAXFONTPATH=$100,
      AFF_TAGGED=$10000,
      AFB_TAGGED=16,
      DFH_TAGLIST=18,
      AFF_SCALED=4,
      AFB_SCALED=2,
      AFF_MEMORY=1,
      AFB_MEMORY=0,
      AFF_DISK=2,
      AFB_DISK=1,
      AFF_BITMAP=8,
      AFB_BITMAP=3,
      MAXFONTNAME=$20

```

1.147 expansion.m

```

CONST ADN_F_STARTPROC=1,
      ADN_B_STARTPROC=0

#define EXPANSIONNAME/0

```

1.148 expansionbase.m

```
(----) OBJECT expansionbase
(  0)   lib:lib (or ARRAY OF lib)
( 34)   flags:CHAR
( 35)   private01:CHAR
( 36)   private02:LONG
( 40)   private03:LONG
( 44)   private04:currentbinding (or ARRAY OF currentbinding)
( 60)   private05:lh (or ARRAY OF lh)
( 74)   mountlist:lh (or ARRAY OF lh)
(----) ENDOBJECT      /* SIZEOF=88 */

(----) OBJECT bootnode
(  0)   ln:ln (or ARRAY OF ln)
( 14)   flags:INT
( 16)   devicenode:LONG
(----) ENDOBJECT      /* SIZEOF=20 */

CONST EE_OK=0,
      EBF_SILENTSTART=$40,
      EBB_SILENTSTART=6,
      EBF_START_CC0=$80,
      EBB_START_CC0=7,
      EBF_BADMEM=4,
      EBB_BADMEM=2,
      EBF_SHORTMEM=2,
      EBB_SHORTMEM=1,
      EE_BADMEM=$2C,
      EBF_KICKBACK33=16,
      EBB_KICKBACK33=4,
      EBF_KICKBACK36=$20,
      EBB_KICKBACK36=5,
      EBF_DOSFLAG=8,
      EBB_DOSFLAG=3,
      EBF_CLOGGED=1,
      EBB_CLOGGED=0,
      EE_NOMEMORY=$2A,
      EE_NOEXPANSION=$29,
      EE_NOBOARD=$2B,
      EE_LASTBOARD=$28
```

1.149 gadtools.m

```
(----) OBJECT lvdrawmsg
(  0)   methodid:LONG
(  4)   rastport:PTR TO rastport
(  8)   drawinfo:PTR TO drawinfo
( 12)   bounds:rectangle (or ARRAY OF rectangle)
( 20)   state:LONG
(----) ENDOBJECT      /* SIZEOF=24 */

(----) OBJECT newmenu
(  0)   type:CHAR
```

```
( 1)   pad:CHAR
( 2)   label:PTR TO CHAR
( 6)   commkey:PTR TO CHAR
(10)   flags:INT
(12)   mutualexclude:LONG
(16)   userdata:LONG
(----) ENDOBJECT      /* SIZEOF=20 */

(----) OBJECT newgadget
( 0)   leftedge:INT
( 2)   topedge:INT
( 4)   width:INT
( 6)   height:INT
( 8)   gadgettext:PTR TO CHAR
(12)   textattr:PTR TO textattr
(16)   gadgetid:INT
(18)   flags:LONG
(22)   visualinfo:LONG
(26)   userdata:LONG
(----) ENDOBJECT      /* SIZEOF=30 */

CONST GTBB_FRAME TYPE=$8008004D,
      IM_SUB=$83,
      NM_SUB=3,
      PLACETEXT_BELOW=8,
      GTMN_AMIGAKEY=$80080042,
      GTNW_ACTIVE=$8008000F,
      GTCY_ACTIVE=$8008000F,
      GTMX_ACTIVE=$8008000A,
      GTMENU_INVALID=2,
      NM_FLAGMASK_V39=$FFFFFF3D,
      NM_BARLABEL=-1,
      NG_HIGHLABEL=$20,
      GTMN_TEXTATTR=$80080031,
      PLACETEXT_ABOVE=4,
      LVR_NORMAL=0,
      GTMN_NEWLOOKMENUS=$80080043,
      NWAY_KIND=7,
      TEXT_KIND=13,
      STRING_KIND=12,
      SLIDER_KIND=11,
      SCROLLER_KIND=9,
      PALETTE_KIND=8,
      CYCLE_KIND=7,
      NUMBER_KIND=6,
      MX_KIND=5,
      LISTVIEW_KIND=4,
      INTEGER_KIND=3,
      CHECKBOX_KIND=2,
      BUTTON_KIND=1,
      GENERIC_KIND=0,
      NM_IGNORE=$40,
      GTNM_FORMAT=$8008004B,
      GTSL_LEVELFORMAT=$8008002A,
      LVR_SELECTEDDISABLED=8,
      LVR_NORMALDISABLED=2,
      NM_ITEMDISABLED=16,
```

```
NM_MENUDISABLED=1,
GTMENU_NOMEM=3,
GTMN_CHECKMARK=$80080041,
GT_UNDESCORE=$80080040,
GTNM_MAXNUMBERLEN=$8008004C,
IM_ITEM=$82,
NM_ITEM=2,
GTSC_ARROWS=$8008003B,
BBFT_ICONDROPOBOX=3,
GADTOOLMASK=$FFFF7FFF,
NM_FLAGMASK=$FFFFFF39,
GTVI_NWTAGS=$80080002,
GT_TAGBASE=$80080000,
GTNM_FRONT PEN=$80080048,
GTTX_FRONT PEN=$80080048,
GTMN_FRONT PEN=$80080032,
GTMENU_TRIMMED=1,
NM_END=0,
MENU_IMAGE=$80,
GADTOOLBIT=$8000,
GTPA_COLORTABLE=$80080052,
GTSL_JUSTIFICATION=$80080051,
GTNM_JUSTIFICATION=$8008004A,
GTTX_JUSTIFICATION=$8008004A,
GTPA_NUMCOLORS=$80080046,
PLACETEXT_IN=16,
GTST_STRING=$8008002D,
NM_COMMANDSTRING=4,
GTTX_COPYTEXT=$8008000C,
GTTX_TEXT=$8008000B,
GTIN_NUMBER=$8008002F,
GTNM_NUMBER=$8008000D,
LV_DRAW=$202,
GTMN_SECONDARYERROR=$8008003F,
GTNW_LABELS=$8008000E,
GTCY_LABELS=$8008000E,
GTMX_LABELS=$80080009,
GTLV_LABELS=$80080006,
NUM_KINDS=14,
GTBB_RECESSED=$80080033,
GTSL_MIN=$80080026,
NM_TITLE=1,
GTPA_COLOR=$80080011,
GT_RESERVED0=$80080037,
LVCB_UNKNOWN=1,
GT_RESERVED1=$80080038,
GTMN_FULLMENU=$8008003E,
GTMN_MENU=$8008003C,
GTNM_BACKPEN=$80080049,
GTTX_BACKPEN=$80080049,
GTNM_CLIPPED=$80080055,
GTTX_CLIPPED=$80080055,
GT_VISUALINFO=$80080034,
GTMX_TITLEPLACE=$80080047,
GTSL_DISPFUNC=$8008002C,
GTSL_LEVELPLACE=$8008002B,
GTSC_TOP=$80080015,
```

```
GTLV_TOP=$80080005,  
GTLV_MAKEVISIBLE=$8008004E,  
GTSC_VISIBLE=$80080017,  
LVR_SELECTED=1,  
GTLV_SELECTED=$80080036,  
GTLV_SHOWSELECTED=$80080035,  
INTERHEIGHT=4,  
BBFT_BUTTON=1,  
GTJ_CENTER=2,  
GTJ_RIGHT=1,  
GTPA_INDICATORHEIGHT=$80080014,  
CHECKBOX_HEIGHT=11,  
MX_HEIGHT=9,  
PLACETEXT_RIGHT=2,  
GTSL_MAXPIXELLEN=$80080050,  
GTSL_MAXLEVELLEN=$80080029,  
GTMX_SCALED=$80080045,  
GTCB_SCALED=$80080044,  
GTJ_LEFT=0,  
GTIN_MAXCHARS=$80080030,  
GTST_MAXCHARS=$8008002E,  
PLACETEXT_LEFT=1,  
GTLV_READONLY=$80080007,  
GTCB_CHECKED=$80080004,  
GT_PRIVATE0=$80080003,  
GTSC_TOTAL=$80080016,  
LVCB_OK=0,  
GTPA_COLOROFFSET=$80080012,  
GTPA_DEPTH=$80080010,  
GTMX_SPACING=$8008003D,  
GTIN_EDITHOOK=$80080037,  
GTST_EDITHOOK=$80080037,  
GTVI_NEWWINDOW=$80080001,  
INTERWIDTH=8,  
BBFT_RIDGE=2,  
GTPA_INDICATORWIDTH=$80080013,  
GTLV_SCROLLWIDTH=$80080008,  
CHECKBOX_WIDTH=26,  
MX_WIDTH=17,  
GTSC_OVERLAP=$80080018,  
NWAYIDCMP=$40,  
GTSL_MAX=$80080027,  
TEXTIDCMP=0,  
STRINGIDCMP=$40,  
SLIDERIDCMP=$70,  
SCROLLERIDCMP=$70,  
PALETTEIDCMP=$40,  
CYCLEIDCMP=$40,  
NUMBERIDCMP=0,  
MXIDCMP=$20,  
LISTVIEWIDCMP=$400078,  
INTEGERIDCMP=$40,  
CHECKBOXIDCMP=$40,  
BUTTONIDCMP=$40,  
ARROWIDCMP=$400068,  
GTNM_BORDER=$8008003A,  
GTTX_BORDER=$80080039,
```

```
GTSL_LEVEL=$80080028
```

```
#define MENU_USERDATA/1
#define GTMENUITEM_USERDATA/1
#define GTMENU_USERDATA/1
```

1.150 gtlayout.m

```
/* this module contains 176 bytes of code! */
```

```
/* ... and 1 reloc entries */
```

```
PROC elt_gvi(handle)
PROC fixed_right(f)
PROC fixed_left(f)
PROC elt_gdi(handle)
PROC to_fixed(l,r)
PROC elt_gs(handle)
```

```
(----) OBJECT layouthandle
( 0)   screen:PTR TO screen
( 4)   drawinfo:PTR TO drawinfo
( 8)   window:PTR TO window
(12)   visualinfo:LONG
(16)   amigaglyph:PTR TO image
(20)   checkglyph:PTR TO image
(24)   userdata:LONG
(28)   menu:PTR TO menu
(----) ENDOBJECT      /* SIZEOF=32 */
```

```
(----) OBJECT helpmsg
( 0)   handle:PTR TO layouthandle
( 4)   objectid:LONG
(----) ENDOBJECT      /* SIZEOF=8 */
```

```
(----) OBJECT refreshmsg
( 0)   id:LONG
( 4)   left:LONG
( 8)   top:LONG
(12)   width:LONG
(16)   height:LONG
(----) ENDOBJECT      /* SIZEOF=20 */
```

```
CONST LH_FONT=$80000029,
      LATD_BUTTONTYPE=$80000056,
      LA_TYPE=$80000028,
      LAGA_INFOLENGTH=$80000046,
      LH_AUTOACTIVATE=$8000002A,
      LABO_CLASSINSTANCE=$8000007A,
      PLACE_BELOW=16,
      LAWN_USERPORT=$8000002F,
      LAGA_PERCENT=$80000024,
      HISTORYHOOK_DISCARD_OLDEST=0,
      LAGR_IDENTX=$80000082,
      LAGR_IDENTITY=$80000086,
```

```
LA_LASTLABEL=$8000002D,  
LA_FIRSTLABEL=$8000002C,  
LAMN_LASTLABEL=$8000002D,  
LAMN_FIRSTLABEL=$8000002C,  
LAMX_LASTLABEL=$8000002D,  
LAMX_FIRSTLABEL=$8000002C,  
LACY_LASTLABEL=$8000002D,  
LACY_FIRSTLABEL=$8000002C,  
LALV_LASTLABEL=$8000002D,  
LALV_FIRSTLABEL=$8000002C,  
LABX_LASTLABEL=$8000002D,  
LABX_FIRSTLABEL=$8000002C,  
LA_HIGHLABEL=$8000001F,  
LAMN_TEXTATTR=$80004280,  
LABO_TAGTESTATTR=$80000078,  
LALV_TEXTATTR=$8000008A,  
ALIGNTEXT_CENTERED=1,  
PLACE_ABOVE=4,  
LH_EXITFLUSH=$8000006C,  
LH_CLONINGPERMITTED=$8000003D,  
LA_ID=$80000027,  
BOOPSI_KIND=$39,  
LEVEL_KIND=$38,  
TAPEDECK_KIND=$37,  
GAUGE_KIND=$36,  
PASSWORD_KIND=$35,  
YBAR_KIND=$34,  
XBAR_KIND=$33,  
FRACTION_KIND=$32,  
BOX_KIND=$31,  
FRAME_KIND=$30,  
END_KIND=$2F,  
VERTICAL_KIND=$2E,  
HORIZONTAL_KIND=$2D,  
LAMN_SCREEN=$8000427F,  
LABO_TAGSCREEN=$80000084,  
TDBT_PLAY=$100,  
LA_DRAWBOX=$8000000B,  
LAMN_CODE=$80004278,  
LABX_DRAWBOX=$8000000B,  
LAFR_DRAWBOX=$8000000B,  
LAVL_LEVELFORMAT=$8008002A,  
TDBT_PAUSE=$20,  
LAMN_CHECKIT=$80004275,  
LAMN_DISABLED=$80004274,  
LAWN_AUTOREFRESH=$80000037,  
LH_USERDATA=$80000074,  
LAMN_USERDATA=$80004273,  
TDBT_RECORD=$30,  
LA_NOKEY=$8000001E,  
LABX_ROWS=$80000001,  
LABX_RESERVESPACE=$80000048,  
LA_EXTRASPACE=$80000004,  
LALV_MAXGROWX=$8000004D,  
LALV_MAXGROWY=$8000004E,  
LAWN_MENUTAGS=$800036B4,  
TDBT_FORWARD=2,
```

```
TDBT_BACKWARD=1,
TDBT_STOP=16,
LABO_OBJECT=$80000085,
LA_PAGESELECTOR=$8000004F,
TDBT_EJECT=$80,
LABX_INDEX=$8000000E,
LAWN_BELOWMOUSE=$80000035,
LA_LABELTABLE=$80000062,
LAMN_LABELTABLE=$80000062,
LAMX_LABELTABLE=$80000062,
LACY_LABELTABLE=$80000062,
LAST_CURSORPOSITION=$80000069,
LALV_LABELTABLE=$80000062,
LABX_LABELTABLE=$80000062,
LA_FRACTION=$80000044,
STORE_FRACTION=$80000044,
LAWN_FLUSH TOP=$800036B1,
LA_BOOL=$80000041,
STORE_BOOL=$80000041,
LA_LASTGADGET=$8000001C,
LAPW_LASTGADGET=$8000001C,
LAST_LASTGADGET=$8000001C,
LAIN_LASTGADGET=$8000001C,
LAFC_LASTGADGET=$8000001C,
LA_LABELTOP=$80000073,
LAPW_STRING=$8008002D,
LAMN_COMMANDTEXT=$80004270,
LAMN_KEYTEXT=$8000426E,
LAMN_SUBTEXT=$8000426C,
LAMN_ITEMTEXT=$8000426A,
LAMN_TITLETEXT=$80004268,
LAWN_TITLETEXT=$8000005C,
LAGA_INFOTEXT=$80000047,
LABX_ALIGNTEXT=$8000001B,
LABX_TEXT=$8000000F,
LA_LABELTEXT=$80000025,
LA_FULLCHECK=$80000016,
LAVL_FULLCHECK=$80000016,
LASL_FULLCHECK=$80000016,
LAMX_AUTOPAGEID=$80000067,
LACY_AUTOPAGEID=$80000067,
LAFC_NUMBER=$80000015,
LA_CURSORKEY=$80000023,
LAMX_TABKEY=$80000076,
LACY_TABKEY=$80000076,
LALV_CURSORKEY=$80000023,
LAMN_ERROR=$8000427E,
TDBT_REWIND=$40,
LA_LABELS=$80000021,
LA_EXTRALABELS=$8000001A,
LALV_LABELS=$80000021,
LALV_EXTRALABELS=$8000001A,
LABX_LABELS=$8000000C,
LATD_PRESSED=$80000058,
LA_MIN=$80000017,
LAWN_TITLE=$8000005C,
LAVL_MIN=$80080026,
```

```
LAIN_MIN=$80000017,
LAFC_MIN=$80000017,
LA_UBYTE=$80000040,
STORE_UBYTE=$80000040,
LA_BYTE=$8000003F,
STORE_BYTE=$8000003F,
INCREMENTERMSG_INITIAL=0,
FIXED_UNITY=$2710,
LAMN_COMMANDID=$80004271,
LAMN_HANDLE=$80004281,
LAMN_LAYOUTHANDLE=$80004281,
LALV_RESIZEX=$8000006D,
LA_HISTORYLINES=$8000003B,
LA_LINES=$80000001,
LABT_LINES=$8000008C,
LAPA_LINES=$80000001,
LAPW_HISTORYLINES=$8000003B,
LAST_HISTORYLINES=$8000003B,
LAIN_HISTORYLINES=$8000003B,
LALV_MINLINES=$80000070,
LALV_RESIZEY=$8000006E,
LALV_LINES=$80000001,
LAFC_HISTORYLINES=$8000003B,
LABX_LINES=$8000000D,
LAGR_ACTIVEPAGE=$8000003A,
INCREMENTERMSG_INCREMENT=1,
INCREMENTERMSG_DECREMENT=-1,
LA_MENU=$80000019,
LAWN_MENU=$80000019,
LAGR_LASTATTRIBUTES=$8000002E,
LABO_TAGDRAWINFO=$80000079,
LAVL_DISPFUNC=$8008002C,
LAVL_LEVELPLACE=$8008002B,
LA_LABELPLACE=$80000003,
LH_MENUGLYPHS=$8000004C,
LH_BLOCKPARENT=$80000054,
LH_PARENT=$80000053,
LAWN_BLOCKPARENT=$80000052,
LAWN_PARENT=$80000051,
LABO_TAGCURRENT=$80000077,
LAGR_FRAME=$80000068,
LA_STRPTR=$80000045,
STORE_STRPTR=$80000045,
LATD_TICK=$8000008B,
LAWN_TOP=$80000031,
LA_TOP=$80000011,
ALIGNF_EXTRA_TOP=$28,
ALIGNF_TOP=4,
LAMN_QUALIFIER=$80004279,
LA_EXTRAFAT=$8000001D,
LABT_EXTRAFAT=$8000001D,
LA_SMALLPALETTE=$80000020,
LAPA_SMALLPALETTE=$80000020,
LAWN_SMARTZOOM=$8000005B,
LAWN_ZOOM=$80000032,
ALIGNF_EXTRA_BOTTOM=$50,
ALIGNF_BOTTOM=8,
```

```
LAWN_EXTRAHEIGHT=$8000005F,  
LABO_FULLHEIGHT=$80000088,  
LABO_RELFONTHEIGHT=$80000083,  
LABO_EXACTHEIGHT=$80000080,  
LAFR_INNERHEIGHT=$8000000A,  
LA_HEIGHT=$80000013,  
ALIGNF_EXTRA_RIGHT=10,  
ALIGNF_RIGHT=1,  
ALIGNTEXT_RIGHT=2,  
PLACE_RIGHT=2,  
LA_LABELID=$80000026,  
LAMN_CHECKMARKGLYPH=$8000427D,  
LAMN_AMIGAGLYPH=$8000427C,  
LAST_TAG=$8000008F,  
LATD_SMALLER=$80000059,  
LAWN_FLUSHLEFT=$800036B0,  
LAWN_LEFT=$80000030,  
LALV_FLUSHLABELLEFT=$80000071,  
LALV_MINCHARS=$8000006F,  
Lafc_MAXCHARS=$80000014,  
LA_LABELLEFT=$80000072,  
LA_LEFT=$80000010,  
LA_LABELCHARS=$8000006B,  
LA_CHARS=$80000002,  
ALIGNF_EXTRA_LEFT=20,  
ALIGNF_LEFT=2,  
ALIGNTEXT_LEFT=0,  
PLACE_LEFT=1,  
LAWN_SHOW=$800036B2,  
LAMN_CHECKED=$80004276,  
LA_SPREAD=$80000006,  
LA_PRIVATE1=$80000064,  
LAGR_SPREAD=$80000006,  
LA_PRIVATE2=$80000065,  
LH_SIMPLECLONE=$8000005A,  
LH_EXACTCLONE=$8000004B,  
PLACE_IN=8,  
LA_RETURNKEY=$80000022,  
LABT_RETURNKEY=$80000022,  
LA_ULONG=$80000044,  
STORE_ULONG=$80000044,  
LA_LONG=$80000043,  
STORE_LONG=$80000043,  
LAWN_BOUNDS=$8000005D,  
LA_PICKER=$80000005,  
LAPA_PICKER=$80000089,  
LAPA_USEPICKER=$80000089,  
LAST_PICKER=$80000005,  
LATX_USEPICKER=$80000005,  
LATX_PICKER=$80000005,  
LA_UWORD=$80000042,  
STORE_UWORD=$80000042,  
LA_WORD=$80000041,  
STORE_WORD=$80000041,  
LA_HISTORYHOOK=$80000050,  
LH_EDITHOOK=$8000004A,  
LH_LOCALEHOOK=$80000004,
```

```
LAWN_ALIGNWINDOW=$80000061,  
LAWN_HELPHOOK=$80000049,  
LAWN_MOVETOWINDOW=$80000036,  
LABO_ACTIVATEHOOK=$8D,  
LAGA_NOTICKS=$8000008F,  
LAPW_HISTORYHOOK=$80000050,  
LAST_HISTORYHOOK=$80000050,  
LAIN_INCREMENTERHOOK=$80000055,  
LAIN_HISTORYHOOK=$80000050,  
LAFC_HISTORYHOOK=$80000050,  
LAFR_REFRESHHOOK=$80000075,  
LAMN_ID=$8000427B,  
LH_RAWKEYFILTER=$8000008E,  
LH_EXPAND=$80000066,  
LABT_ESCKEY=$80000038,  
LAMN_KEYID=$8000426F,  
ALIGNTEXT_PAD=3,  
LAMN_TOGGLE=$80004277,  
LATD_TOGGLE=$80000057,  
TDBTLAST=$200,  
LAMN_CHAR=$8000427A,  
LAWN_MENUTEMPLATE=$800036B3,  
LASC_THIN=$8000003E,  
LAMN_TITLEID=$80004269,  
LAWN_TITLEID=$80000063,  
LAWN_EXTRAWIDTH=$8000005E,  
LABO_FULLWIDTH=$80000087,  
LABO_EXACTWIDTH=$8000007F,  
LAFR_INNERWIDTH=$80000009,  
LA_WIDTH=$80000012,  
LAMN_ITEMID=$8000426B,  
LA_MAX=$80000018,  
LAWN_IDCMP=$80000060,  
LAVL_MAX=$80080027,  
LAIN_MAX=$80000018,  
LAFC_MAX=$80000018,  
LABT_LASTLINE=$8000002D,  
LABT_FIRSTLINE=$8000002C,  
LA_SAMESIZE=$80000008,  
LAXB_FULLSIZE=$80000032,  
LALV_LOCKSIZE=$8000006A,  
LAGR_SAMESIZE=$80000008,  
LATX_LOCKSIZE=$8000006A,  
LAMN_MUTUALEXCLUDE=$80004272,  
LAWN_MAXPEN=$80000034,  
TDBT_NEXT=8,  
LA_LINK=$80000007,  
NIL_LINK=-2,  
LABO_LINK=$80000007,  
LABO_TAGLINK=$80000081,  
LAST_LINK=$80000007,  
LAIN_USEINCREMENTERS=$80000039,  
LALV_LINK=$80000007,  
TDBT_PREVIOUS=4,  
LABO_CLASSLIBRARYNAME=$8000007C,  
LABO_CLASSNAME=$8000007B,  
LAMN_SUBID=$8000426D,
```

```

LAVL_LEVEL=$80080028

#define Lt_GetVisualInfo/1
#define Lt_GetDrawInfo/1
#define Lt_SetAutoActivate/2
#define Lt_GetScreen/1
#define LAMN_ITEM_UserData/1
#define LAMN_MENU_UserData/1
#define Lt_GetString/2

```

1.151 iff.m

```

CONST IFFVERSION=22,
      IFFL_ERROR_BADTASK=-1,
      IFFL_ERROR_OPEN=16,
      IFFL_ERROR_READ=17,
      IFFL_ERROR_NOMEM=18,
      IFFL_ERROR_NOTIFF=19,
      IFFL_ERROR_WRITE=20,
      IFFL_ERROR_NOILBM=24,
      IFFL_ERROR_NOBMHD=25,
      IFFL_ERROR_NOBODY=26,
      IFFL_ERROR_BADCOMPRESSION=28,
      IFFL_ERROR_NOANHD=29,
      IFFL_ERROR_NODLTA=30,
      ID_FORM=$464F524D,
      ID_CAT=$43415420,
      ID_LIST=$4C495354,
      ID_PROP=$50524F50,
      ID_ANIM=$414E494D,
      ID_ANHD=$414E4844,
      ID_ANNO=$414E4E4F,
      ID_BMHD=$424D4844,
      ID_BODY=$424F4459,
      ID_CAMG=$43414D47,
      ID_CLUT=$434C5554,
      ID_CMAP=$434D4150,
      ID_CRNG=$43524E47,
      ID_CTBL=$4354424C,
      ID_DLTA=$444C5441,
      ID_ILBM=$494C424D,
      ID_SHAM=$5348414D,
      ID_8SVX=$38535658,
      ID_ATAK=$4154414B,
      ID_NAME=$4E414D45,
      ID_RLSE=$524C5345,
      ID_VHDR=$56484452,
      IFFL_MODE_READ=0,
      IFFL_MODE_WRITE=1,
      IFFL_COMPR_NONE=0,
      IFFL_COMPR_BYTERUN1=1,
      IFFL_COMPR_FIBDELTA=$101

```

```

(----) OBJECT bmh
(  0)   width:INT

```

```

(  2)  height:INT
(  4)  xpos:INT
(  6)  ypos:INT
(  8)  nplanes:CHAR
(  9)  masking:CHAR
( 10)  compression:CHAR
( 11)  pad1:CHAR
( 12)  transpcol:INT
( 14)  xaspect:CHAR
( 15)  yaspect:CHAR
( 16)  pagewidth:INT
( 18)  pageheight:INT
(----) ENDOBJECT      /* SIZEOF=20 */

(----) OBJECT anh
(  0)  operation:CHAR
(  1)  mask:CHAR
(  2)  w:INT
(  4)  h:INT
(  6)  x:INT
(  8)  y:INT
( 10)  abstime:LONG
( 14)  reltime:LONG
( 18)  interleave:CHAR
( 19)  pad0:CHAR
( 20)  bits:LONG
( 24)  pad:CHAR
(----) ENDOBJECT      /* SIZEOF=25 */

```

1.152 iffparse.m

```

(----) OBJECT clipboardhandle
(  0)  iocr:ioclipreq (or ARRAY OF ioclipreq)
( 52)  cbport:mp (or ARRAY OF mp)
( 86)  satisfyport:mp (or ARRAY OF mp)
(----) ENDOBJECT      /* SIZEOF=120 */

(----) OBJECT collectionitem
(  0)  next:PTR TO collectionitem
(  4)  size:LONG
(  8)  data:LONG
(----) ENDOBJECT      /* SIZEOF=12 */

(----) OBJECT storedproperty
(  0)  size:LONG
(  4)  data:LONG
(----) ENDOBJECT      /* SIZEOF=8 */

(----) OBJECT localcontextitem
(  0)  mln:mln (or ARRAY OF mln)
(  8)  id:LONG
( 12)  type:LONG
( 16)  ident:LONG
(----) ENDOBJECT      /* SIZEOF=20 */

```

```

(----) OBJECT contextnode
( 0)   mln:mln (or ARRAY OF mln)
( 8)   id:LONG
(12)   type:LONG
(16)   size:LONG
(20)   scan:LONG
(----) ENDOBJECT      /* SIZEOF=24 */

(----) OBJECT iffstreamcmd
( 0)   command:LONG
( 4)   buf:PTR TO CHAR
( 8)   nbytes:LONG
(----) ENDOBJECT      /* SIZEOF=12 */

(----) OBJECT iffhandle
( 0)   stream:LONG
( 4)   flags:LONG
( 8)   depth:LONG
(----) ENDOBJECT      /* SIZEOF=12 */

CONST IFFLCI_EXITHANDLER=$65786864,
      IFFLCI_ENTRYHANDLER=$656E6864,
      IFFERR_NOSCOPE=-3,
      IFFSCC_WRITE=3,
      IFFCMD_WRITE=3,
      IFFERR_WRITE=-6,
      IFFF_WRITE=1,
      IFFF_RWBITS=1,
      IFFERR_NOMEM=-4,
      ID_CAT=$43415420,
      ID_NULL=$20202020,
      IFFERR_MANGLED=-8,
      IFFCMD_PURGELCI=7,
      IFFLCI_COLLECTION=$636F6C6C,
      IFFERR_EOC=-2,
      IFFERR_EOF=-1,
      IFFSLI_ROOT=1,
      IFFERR_SYNTAX=-9,
      IFFSCC_CLEANUP=1,
      IFFCMD_CLEANUP=1,
      ID_FORM=$464F524D,
      IFF_RETURN2CLIENT=-12,
      IFFSCC_SEEK=4,
      IFFCMD_SEEK=4,
      IFFERR_SEEK=-7,
      IFFF_RSEEK=4,
      IFFF_FSEEK=2,
      IFFSIZE_UNKNOWN=-1,
      ID_LIST=$4C495354,
      IFFSLI_PROP=3,
      IFFLCI_PROP=$70726F70,
      ID_PROP=$50524F50,
      IFFSLI_TOP=2,
      IFFF_RESERVED=$FFFF0000,
      IFFCMD_ENTRY=5,
      IFFCMD_EXIT=6,
      IFFPARSE_RAWSTEP=2,

```

```

IFFPARSE_STEP=1,
IFFSCC_READ=2,
IFFCMD_READ=2,
IFFERR_READ=-5,
IFFF_READ=0,
IFFPARSE_SCAN=0,
IFFERR_NOTIFF=-10,
IFFSCC_INIT=0,
IFFCMD_INIT=0,
IFFERR_NOHOOK=-11

```

1.153 locale.m

```

(----) OBJECT catalog
(  0)   ln:ln (or ARRAY OF ln)
( 14)   pad:INT
( 16)   language:PTR TO CHAR
( 20)   codeset:LONG
( 24)   version:INT
( 26)   revision:INT
(----) ENDOBJECT      /* SIZEOF=28 */

(----) OBJECT locale
(  0)   localename:PTR TO CHAR
(  4)   languagename:PTR TO CHAR
(  8)   preflanguages[10]:ARRAY OF LONG
( 48)   flags:LONG
( 52)   codeset:LONG
( 56)   countrycode:LONG
( 60)   telephonecode:LONG
( 64)   gmtoffset:LONG
( 68)   measuringsystem:CHAR
( 69)   calendartype:CHAR
( 70)   reserved0[2]:ARRAY OF CHAR
( 72)   datetimetypeformat:PTR TO CHAR
( 76)   dateformat:PTR TO CHAR
( 80)   timeformat:PTR TO CHAR
( 84)   shortdatetimetypeformat:PTR TO CHAR
( 88)   shortdateformat:PTR TO CHAR
( 92)   shorttimeformat:PTR TO CHAR
( 96)   decimalpoint:PTR TO CHAR
(100)   groupseparator:PTR TO CHAR
(104)   fracgroupseparator:PTR TO CHAR
(108)   grouping:PTR TO CHAR
(112)   fracgrouping:PTR TO CHAR
(116)   mondecimalpoint:PTR TO CHAR
(120)   mongroupseparator:PTR TO CHAR
(124)   monfracgroupseparator:PTR TO CHAR
(128)   mongrouping:PTR TO CHAR
(132)   monfracgrouping:PTR TO CHAR
(136)   monfracdigits:CHAR
(137)   monintfracdigits:CHAR
(138)   reserved1[2]:ARRAY OF CHAR
(140)   moncs:PTR TO CHAR
(144)   monsmallcs:PTR TO CHAR

```

```
( 148)    monintcs:PTR TO CHAR
( 152)    monpositivesign:PTR TO CHAR
( 156)    monpositivespacesep:CHAR
( 157)    monpositivesignpos:CHAR
( 158)    monpositivecspos:CHAR
( 159)    reserved2:CHAR
( 160)    monnegativesign:PTR TO CHAR
( 164)    monnegativespacesep:CHAR
( 165)    monnegativesignpos:CHAR
( 166)    monnegativecspos:CHAR
( 167)    reserved3:CHAR
(----) ENDOBJECT      /* SIZEOF=168 */
```

```
(----) OBJECT localebase
(   0)    lib:lib (or ARRAY OF lib)
(  34)    syspatches:INT
(----) ENDOBJECT      /* SIZEOF=36 */
```

```
CONST ABMON_1=27,
      MON_1=15,
      ABMON_2=28,
      MON_2=16,
      CT_7MON=1,
      ABMON_3=29,
      MON_3=17,
      PM_STR=$2A,
      AM_STR=$29,
      NOSTR=$28,
      ABMON_4=30,
      MON_4=18,
      ABMON_5=31,
      MON_5=19,
      ABMON_6=$20,
      MON_6=20,
      ABMON_7=$21,
      MON_7=21,
      ABMON_8=$22,
      MON_8=22,
      ABMON_9=$23,
      MON_9=23,
      TODAYSTR=$30,
      YESTERDAYSTR=$2F,
      CSP_PRECEDES=0,
      CLOSEQUOTE=$2E,
      OPENQUOTE=$2D,
      SS_SPACE=1,
      SS_NOSPACE=0,
      MS_AMERICAN=1,
      OC_TAGBASE=$80090000,
      CSP_SUCCEEDS=1,
      TOMORROWSTR=$31,
      SP_SUCC_ALL=2,
      SP_PREC_ALL=1,
      CT_7FRI=5,
      OC_BUILTINCODESET=$80090002,
      CT_7SUN=0,
      SC_ASCII=0,
```

```

MAXSTRMSG=$33,
FUTURESTR=$32,
CT_7TUE=2,
ABDAY_1=8,
DAY_1=1,
ABDAY_2=9,
DAY_2=2,
ABDAY_3=10,
DAY_3=3,
ABDAY_4=11,
DAY_4=4,
OC_LANGUAGE=$80090004,
OC_BUILTINLANGUAGE=$80090001,
SP_PARENS=0,
ABDAY_5=12,
DAY_5=5,
ABDAY_6=13,
DAY_6=6,
ABDAY_7=14,
DAY_7=7,
CT_7THU=4,
MS_IMPERIAL=2,
YESSTR=$27,
SC_COLLATE1=1,
SC_COLLATE2=2,
MS_ISO=0,
MS_BRITISH=3,
CT_7SAT=6,
OC_VERSION=$80090003,
HARDHYPHEN=$2C,
SOFTHYPHEN=$2B,
ABMON_10=$24,
MON_10=24,
SP_SUCC_CURR=4,
SP_PREC_CURR=3,
ABMON_11=$25,
MON_11=25,
ABMON_12=$26,
MON_12=26,
CT_7WED=3

```

1.154 lowlevel.m

```

(----) OBJECT keyquery
(  0)  keycode:INT
(  2)  pressed:INT
(----) ENDOBJECT      /* SIZEOF=4 */

CONST SJA_TYPE=$80C00101,
      LLKB_RAMIGA=23,
      LLKB_LAMIGA=22,
      LLKF_RAMIGA=$800000,
      LLKF_LAMIGA=$400000,
      RAWKEY_PORT3_JOY_DOWN=$37A,
      RAWKEY_PORT2_JOY_DOWN=$27A,

```

```
RAWKEY_PORT1_JOY_DOWN=$17A,  
RAWKEY_PORT0_JOY_DOWN=$7A,  
JPF_DOWN=4,  
JPB_DOWN=2,  
JPB_JOY_DOWN=2,  
JPF_JOY_DOWN=4,  
SJA_REINITIALIZE=$80C00102,  
SCON_STOPINPUT=$80C00003,  
JP_TYPE_GAMECTLR=$10000000,  
SJA_TYPE_GAMECTLR=1,  
SCON_DUMMY=$80C00000,  
SCON_DUMMY=$80C00000,  
SJA_DUMMY=$80C00100,  
LANG_GREEK=16,  
LANG_GERMAN=3,  
JP_TYPE_JOYSTK=$30000000,  
SJA_TYPE_JOYSTK=3,  
RAWKEY_PORT3_BUTTON_GREEN=$376,  
RAWKEY_PORT2_BUTTON_GREEN=$276,  
RAWKEY_PORT1_BUTTON_GREEN=$176,  
RAWKEY_PORT0_BUTTON_GREEN=$76,  
JPB_BUTTON_GREEN=20,  
JPF_BUTTON_GREEN=$100000,  
RAWKEY_PORT3_BUTTON_PLAY=$373,  
RAWKEY_PORT2_BUTTON_PLAY=$273,  
RAWKEY_PORT1_BUTTON_PLAY=$173,  
RAWKEY_PORT0_BUTTON_PLAY=$73,  
JPF_UP=8,  
JPB_BUTTON_PLAY=17,  
JPF_BUTTON_PLAY=$20000,  
LLKB_LALT=20,  
LLKF_LALT=$100000,  
RAWKEY_PORT3_BUTTON_REVERSE=$374,  
RAWKEY_PORT2_BUTTON_REVERSE=$274,  
RAWKEY_PORT1_BUTTON_REVERSE=$174,  
RAWKEY_PORT0_BUTTON_REVERSE=$74,  
JPB_BUTTON_REVERSE=18,  
JPF_BUTTON_REVERSE=$40000,  
LANG_ITALIAN=6,  
LLKB_CAPSLOCK=18,  
LLKF_CAPSLOCK=$40000,  
JP_TYPE_NOTAVAIL=0,  
JP_MOUSE_MASK=$FFFF,  
JP_MVERT_MASK=$FF00,  
JP_MHORZ_MASK=$FF,  
JP_DIRECTION_MASK=15,  
JP_BUTTON_MASK=$FE0000,  
JP_TYPE_MASK=$F0000000,  
LLKB_CONTROL=19,  
LLKF_CONTROL=$80000,  
RAWKEY_PORT3_BUTTON_FORWARD=$375,  
RAWKEY_PORT2_BUTTON_FORWARD=$275,  
RAWKEY_PORT1_BUTTON_FORWARD=$175,  
RAWKEY_PORT0_BUTTON_FORWARD=$75,  
JPB_BUTTON_FORWARD=19,  
JPF_BUTTON_FORWARD=$80000,  
LANG_AMERICAN=1,
```

```
RAWKEY_PORT3_BUTTON_YELLOW=$377,
RAWKEY_PORT2_BUTTON_YELLOW=$277,
RAWKEY_PORT1_BUTTON_YELLOW=$177,
RAWKEY_PORT0_BUTTON_YELLOW=$77,
JPB_BUTTON_YELLOW=21,
JPF_BUTTON_YELLOW=$200000,
JP_TYPE_MOUSE=$20000000,
SJA_TYPE_MOUSE=2,
LANG_ARABIC=15,
LANG_FINNISH=11,
LANG_DANISH=8,
LANG_SPANISH=5,
RAWKEY_PORT3_JOY_UP=$379,
RAWKEY_PORT2_JOY_UP=$279,
RAWKEY_PORT1_JOY_UP=$179,
RAWKEY_PORT0_JOY_UP=$79,
JPB_JOY_UP=3,
JPF_JOY_UP=8,
RAWKEY_PORT3_BUTTON_BLUE=$372,
RAWKEY_PORT2_BUTTON_BLUE=$272,
RAWKEY_PORT1_BUTTON_BLUE=$172,
RAWKEY_PORT0_BUTTON_BLUE=$72,
SCON_REMCREATEKEYS=$80C00005,
SCON_ADDCREATEKEYS=$80C00004,
JPB_BUTTON_BLUE=23,
JPF_BUTTON_BLUE=$800000,
LANG_DUTCH=9,
LANG_PORTUGUESE=7,
SCON_CDREBOOT=$80C00002,
SCON_KILLREQ=$80C00001,
CDREBOOT_DEFAULT=2,
JPB_UP=3,
LANG_CHINESE=14,
LANG_JAPANESE=13,
LANG_ENGLISH=2,
LLKB_RSHIFT=17,
LLKB_LSHIFT=16,
LLKF_RSHIFT=$20000,
LLKF_LSHIFT=$10000,
LANG_UNKNOWN=0,
JP_TYPE_UNKNOWN=$40000000,
RAWKEY_PORT3_BUTTON_RED=$378,
RAWKEY_PORT2_BUTTON_RED=$278,
RAWKEY_PORT1_BUTTON_RED=$178,
RAWKEY_PORT0_BUTTON_RED=$78,
JPB_BUTTON_RED=22,
JPF_BUTTON_RED=$400000,
LLKB_RALT=21,
LLKF_RALT=$200000,
CDREBOOT_ON=1,
CDREBOOT_OFF=0,
SCON_TAKEOVERSYS=$80C00000,
JPF_BTN1=$800000,
JPB_BTN1=23,
JPF_BTN2=$400000,
JPB_BTN2=22,
JPF_BTN3=$200000,
```

```

JPB_BTN3=21,
JPF_BTN4=$100000,
JPB_BTN4=20,
JPF_BTN5=$80000,
JPB_BTN5=19,
JPF_BTN6=$40000,
JPB_BTN6=18,
JPF_BTN7=$20000,
JPB_BTN7=17,
LANG_FRENCH=4,
RAWKEY_PORT3_JOY_RIGHT=$37B,
RAWKEY_PORT2_JOY_RIGHT=$27B,
RAWKEY_PORT1_JOY_RIGHT=$17B,
RAWKEY_PORT0_JOY_RIGHT=$7B,
JPF_RIGHT=1,
JPB_RIGHT=0,
JPB_JOY_RIGHT=0,
JPF_JOY_RIGHT=1,
LANG_NORWEGIAN=10,
RAWKEY_PORT3_JOY_LEFT=$37C,
RAWKEY_PORT2_JOY_LEFT=$27C,
RAWKEY_PORT1_JOY_LEFT=$17C,
RAWKEY_PORT0_JOY_LEFT=$7C,
JPF_LEFT=2,
JPB_LEFT=1,
JPB_JOY_LEFT=1,
JPF_JOY_LEFT=2,
LANG_KOREAN=18,
LANG_SWEDISH=12,
SJA_TYPE_AUTOSENSE=0,
LANG_HEBREW=17

```

1.155 mathieesp.m

```

#define FPHALF/0
#define Round/1
#define E/0
#define Trunc/1
#define ItoF/1
#define PI/0
#define FPZERO/0
#define FPONE/0
#define FPTEN/0
#define LOG10/0
#define PI2/0
#define PI4/0
#define TWO_PI/0

```

1.156 mathlibrary.m

```

(----) OBJECT mathieebase
( 0) libnode:lib (or ARRAY OF lib)

```

```
( 34)   reserved[18]:ARRAY OF CHAR
( 52)   taskopenlib:LONG
( 56)   taskcloselib:LONG
(----) ENDOBJECT      /* SIZEOF=60 */
```

1.157 mathresource.m

```
(----) OBJECT mathieeerresource
(  0)   node:ln (or ARRAY OF ln)
( 14)   flags:INT
( 16)   baseaddr:PTR TO INT
( 20)   dblbasinit:LONG
( 24)   dbltransinit:LONG
( 28)   sglbasinit:LONG
( 32)   sgltransinit:LONG
( 36)   extbasinit:LONG
( 40)   exttransinit:LONG
(----) ENDOBJECT      /* SIZEOF=44 */
```

```
CONST MATHIEEERESOURCEF_EXTBAS=16,
      MATHIEEERESOURCEF_SGLBAS=4,
      MATHIEEERESOURCEF_DBLBAS=1,
      MATHIEEERESOURCEF_EXTTRANS=$20,
      MATHIEEERESOURCEF_SGLTRANS=8,
      MATHIEEERESOURCEF_DBLTRANS=2
```

1.158 midi.m

```
CONST MIDIVERSION=7,
      RIM_MAXCOUNT=3
```

```
(----) OBJECT rimatch
(  0)   flags:CHAR
(  1)   match:substructure
(----) ENDOBJECT      /* SIZEOF=4 */
```

```
CONST RIMF_COUNTBITS=3,
      RIMF_EXTID=$40,
      RIMF_EXCLUDE=$80
```

```
(----) OBJECT mrouteinfo
(  0)   msgflags:INT
(  2)   chanflags:INT
(  4)   chanoffset:CHAR
(  5)   noteoffset:CHAR
(  6)   sysexmatch:substructure
( 10)   ctrlmatch:substructure
(----) ENDOBJECT      /* SIZEOF=14 */
```

```
CONST MMF_CHAN=$FF,
      MMF_NOTEOFF=1,
      MMF_NOTEON=2,
```

```

    MMF_POLYPRESS=4,
    MMF_CTRL=8,
    MMF_PROG=16,
    MMF_CHANPRESS=$20,
    MMF_PITCHBEND=$40,
    MMF_MODE=$80,
    MMF_SYSCOM=$100,
    MMF_SYSRT=$200,
    MMF_SYSEX=$400,
    MMF_ALL=$7FF

(----) OBJECT mroutepr
(   0)   mln:substructure
(   8)   route:LONG
(----) ENDOBJECT      /* SIZEOF=12 */

(----) OBJECT mroute
(   0)   source:LONG
(   4)   dest:LONG
(   8)   srouteptr:substructure
(  20)   drouteptr:substructure
(  32)   routeinfo:substructure
(----) ENDOBJECT      /* SIZEOF=46 */

(----) OBJECT msource
(   0)   ln:substructure
(  14)   image:LONG
(  18)   rplist:substructure
(  30)   userdata:LONG
(  34)   routemsgflags:INT
(  36)   routechanflags:INT
(----) ENDOBJECT      /* SIZEOF=38 */

CONST NT_MSOURCE=$20,
      NT_RESMSOURCE=$21

(----) OBJECT mdest
(   0)   ln:substructure
(  14)   image:LONG
(  18)   rplist:substructure
(  30)   destport:LONG
(  34)   userdata:LONG
(  38)   defaultrouteinfo:substructure
(----) ENDOBJECT      /* SIZEOF=52 */

CONST NT_MDEST=$22,
      NT_RESMDDEST=$23

(----) OBJECT midipacket
(   0)   mn:substructure
(  20)   type:INT
(  22)   length:INT
(  24)   reserved:substructure
(  28)   midimsg:substructure
(----) ENDOBJECT      /* SIZEOF=32 */

(----) OBJECT mlistsignal

```

```
( 0)    mln:substructure
( 8)    sigtask:LONG
(12)    sigbit:CHAR
(13)    flags:CHAR
(----) ENDOBJECT      /* SIZEOF=14 */
```

```
CONST MLSF_SOURCE=1,
      MLSF_DEST=2,
      MS_NOTEOFF=$80,
      MS_NOTEON=$90,
      MS_POLYPRESS=$A0,
      MS_CTRL=$B0,
      MS_MODE=$B0,
      MS_PROG=$C0,
      MS_CHANPRESS=$D0,
      MS_PITCHBEND=$E0,
      MS_SYSEX=$F0,
      MS_QTRFRAME=$F1,
      MS_SONGPOS=$F2,
      MS_SONGSELECT=$F3,
      MS_TUNEREQ=$F6,
      MS_EOX=$F7,
      MS_CLOCK=$F8,
      MS_START=$FA,
      MS_CONTINUE=$FB,
      MS_STOP=$FC,
      MS_ACTVSENSE=$FE,
      MS_RESET=$FF,
      MIDDLEC=$3C,
      DEFAULTVELOCITY=$40,
      PITCHBENDCENTER=$2000,
      MCLKSPERQTR=24,
      MCLKSPERSP=6,
      MCCENTER=$40,
      MC_MODWHEEL=1,
      MC_BREATH=2,
      MC_FOOT=4,
      MC_PORTATIME=5,
      MC_DATAENTRY=6,
      MC_VOLUME=7,
      MC_BALANCE=8,
      MC_PAN=10,
      MC_EXPRESSION=11,
      MC_GENERAL1=16,
      MC_GENERAL2=17,
      MC_GENERAL3=18,
      MC_GENERAL4=19,
      MC_SUSTAIN=$40,
      MC_PORTA=$41,
      MC_SUSTENUTO=$42,
      MC_SOFTPEDAL=$43,
      MC_HOLD2=$45,
      MC_GENERAL5=$50,
      MC_GENERAL6=$51,
      MC_GENERAL7=$52,
      MC_GENERAL8=$53,
      MC_EXTDEPTH=$5B,
```

MC_TREMOLODEPTH=\$5C,
MC_CHORUSDEPTH=\$5D,
MC_CELESTEDEPTH=\$5E,
MC_PHASERDEPTH=\$5F,
MC_DATAINCR=\$60,
MC_DATADECR=\$61,
MC_NRPNL=\$62,
MC_NRPNH=\$63,
MC_RPNL=\$64,
MC_RPNH=\$65,
MM_MAX=\$78,
MM_MIN=\$79,
MM_RESETCTRL=\$79,
MM_LOCAL=\$7A,
MM_ALLOFF=\$7B,
MM_OMNIOFF=\$7C,
MM_OMNION=\$7D,
MM_MONO=\$7E,
MM_POLY=\$7F,
MRP_PBSENS=0,
MRP_FINETUNE=1,
MRP_COURSETUNE=2,
MTCQ_FRAMEL=0,
MTCQ_FRAMEH=16,
MTCQ_SECL=\$20,
MTCQ_SECH=\$30,
MTCQ_MINL=\$40,
MTCQ_MINH=\$50,
MTCQ_HOURL=\$60,
MTCQ_HOURH=\$70,
MTCQ_TYPEMASK=\$70,
MTCQ_DATAMASK=15,
MTCH_TYPEMASK=\$60,
MTCH_HOURLMASK=31,
MTCT_24FPS=0,
MTCT_25FPS=\$20,
MTCT_30FPS_DROP=\$40,
MTCT_30FPS_NONDROP=\$60,
MID_XAMERICA=0,
MID_SEQUENTIAL=1,
MID_IDP=2,
MID_OCTAVEPLATEAU=3,
MID_MOOG=4,
MID_PASSPORT=5,
MID_LEXICON=6,
MID_KURZWEIL=7,
MID_FENDER=8,
MID_AKG=10,
MID_VOYCE=11,
MID_WAVEFRAME=12,
MID_ADA=13,
MID_GARFIELD=14,
MID_ENSONIQ=15,
MID_OBERHEIM=16,
MID_APPLE=17,
MID_GREYMATTER=18,
MID_PALMTREE=20,

MID_JLCOOPER=21,
MID_LOWREY=22,
MID_ADAMSSMITH=23,
MID_EMU=24,
MID_HARMONY=25,
MID_ART=26,
MID_BALDWIN=27,
MID_EVENTIDE=28,
MID_INVENTRONICS=29,
MID_CLARITY=31,
MIDX_DIGITALMUSIC=7,
MIDX_IOTA=8,
MIDX_IVL=11,
MIDX_SOUTHERNMUSIC=12,
MIDX_LAKEBUTLER=13,
MIDX_DOD=16,
MIDX_PERFECTFRET=20,
MIDX_OPCODE=22,
MIDX_SPATIALSOUND=24,
MIDX_KMX=25,
MIDX_AXXES=\$20,
MID_PASSAC=\$20,
MID_SIEL=\$21,
MID_SYNTHAXE=\$22,
MID_HOHNER=\$24,
MID_TWISTER=\$25,
MID_SOLTON=\$26,
MID_JELLINGHAUS=\$27,
MID_SOUTHWORTH=\$28,
MID_PPG=\$29,
MID_JEN=\$2A,
MID_SSL=\$2B,
MID_AUDIOVERITRIEB=\$2C,
MID_ELKA=\$2F,
MID_DYNACORD=\$30,
MID_KAWAI=\$40,
MID_ROLAND=\$41,
MID_KORG=\$42,
MID_YAMAHA=\$43,
MID_CASIO=\$44,
MID_MORIDAIRA=\$45,
MID_KAMIYA=\$46,
MID_AKAI=\$47,
MID_JAPANVICTOR=\$48,
MID_MEISOSHA=\$49,
MID_HOSHINOAKIKI=\$4A,
MID_FUJITSU=\$4B,
MID_SONY=\$4C,
MID_NISSHINONPA=\$4D,
MID_SYSTEMPRODUCT=\$4F,
MID_NC=\$7D,
MID_NRT=\$7E,
MID_RT=\$7F

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```
(----) OBJECT __dummyxfc2__
(  0)   mnd:mui_notifydata (or ARRAY OF mui_notifydata)
( 28)   mad:mui_areadata (or ARRAY OF mui_areadata)
(----) ENDOBJECT      /* SIZEOF=68 */

(----) OBJECT mui_customclass
(  0)   mcc_userdata:LONG
(  4)   mcc_utilitybase:PTR TO lib
(  8)   mcc_dosbase:PTR TO lib
( 12)   mcc_gfxbase:PTR TO lib
( 16)   mcc_intuitionbase:PTR TO lib
( 20)   mcc_super:PTR TO iclass
( 24)   mcc_class:PTR TO iclass
(----) ENDOBJECT      /* SIZEOF=28 */

(----) OBJECT mui_renderinfo
(  0)   mri_windowobject:PTR TO LONG
(  4)   mri_screen:PTR TO screen
(  8)   mri_drawinfo:PTR TO drawinfo
( 12)   mri_pens:PTR TO INT
( 16)   mri_window:PTR TO window
( 20)   mri_rastport:PTR TO rastport
(----) ENDOBJECT      /* SIZEOF=24 */

(----) OBJECT mui_areadata
(  0)   mad_renderinfo:PTR TO mui_renderinfo
(  4)   priv6:LONG
(  8)   mad_font:PTR TO textfont
( 12)   mad_minmax:mui_minmax (or ARRAY OF mui_minmax)
( 24)   mad_box:ibox (or ARRAY OF ibox)
( 32)   mad_addleft:CHAR
( 33)   mad_addtop:CHAR
( 34)   mad_subwidth:CHAR
( 35)   mad_subheight:CHAR
( 36)   mad_flags:LONG
(----) ENDOBJECT      /* SIZEOF=40 */

(----) OBJECT mui_minmax
(  0)   minwidth:INT
(  2)   minheight:INT
(  4)   maxwidth:INT
(  6)   maxheight:INT
(  8)   defwidth:INT
( 10)   defheight:INT
(----) ENDOBJECT      /* SIZEOF=12 */

(----) OBJECT mui_notifydata
(  0)   mnd_globalinfo:PTR TO mui_globalinfo
(  4)   mnd_userdata:LONG
(  8)   priv1:LONG
( 12)   priv2:LONG
( 16)   priv3:LONG
( 20)   priv4:LONG
( 24)   priv5:LONG
```

```

(----) ENDOBJECT      /* SIZEOF=28 */

(----) OBJECT mui_globalinfo
(   0)   priv0:LONG
(   4)   mgi_applicationobject:PTR TO LONG
(----) ENDOBJECT      /* SIZEOF=8 */

(----) OBJECT mui_boopsiquery
(   0)   mbq_methodid:LONG
(   4)   mbq_screen:PTR TO screen
(   8)   mbq_flags:LONG
(  12)   mbq_minwidth:LONG
(  16)   mbq_minheight:LONG
(  20)   mbq_maxwidth:LONG
(  24)   mbq_maxheight:LONG
(  28)   mbq_defwidth:LONG
(  32)   mbq_defheight:LONG
(  36)   mbq_renderinfo:PTR TO mui_renderinfo
(----) ENDOBJECT      /* SIZEOF=40 */

(----) OBJECT mui_scrmodelist_entry
(   0)   sme_name:PTR TO CHAR
(   4)   sme_modeid:LONG
(----) ENDOBJECT      /* SIZEOF=8 */

(----) OBJECT mui_palette_entry
(   0)   mpe_id:LONG
(   4)   mpe_red:LONG
(   8)   mpe_green:LONG
(  12)   mpe_blue:LONG
(  16)   mpe_group:LONG
(----) ENDOBJECT      /* SIZEOF=20 */

(----) OBJECT mui_command
(   0)   mc_name:PTR TO CHAR
(   4)   mc_template:PTR TO CHAR
(   8)   mc_parameters:LONG
(  12)   mc_hook:PTR TO hook
(  16)   mc_reserved[5]:ARRAY OF LONG
(----) ENDOBJECT      /* SIZEOF=36 */

CONST MUIA_Application_Iconified=$8042A07F,
      MUIA_Popasl_Type=$8042DF3D,
      MUIA_Dirlist_SortType=$804228BC,
      MUIA_Boopsi_TagDrawInfo=$8042BAE7,
      MUIA_Application_BrokerPri=$8042C8D0,
      MUIO_Menuitem=14,
      MUIA_Application_UseRexx=$80422387,
      MUIE_NoARexx=5,
      MBQF_HORIZ=1,
      MUII_LASTPAT=$8E,
      MUIV_Listview_MultiSelect_None=0,
      MUIA_Register_Frame=$8042349B,
      MUIV_List_CursorType_None=0,
      MUIA_Gauge_Current=$8042F0DD,
      MUIA_Bitmap_Transparent=$80422805,
      MUIV_InputMode_None=0,

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```
MUIV_Frame_None=0,
MUIA_Frame=$8042AC64,
MUIV_Window_ActiveObject_None=0,
MUIE_OK=0,
MUIO_Label_DoubleFrame=$200,
MUIO_Label_SingleFrame=$100,
MUIA_Coloradjust_ModeID=$8042EC59,
MUIV_Frame_Prop=7,
MUIKEY_PAGEDOWN=5,
MUIKEY_DOWN=3,
MUIA_Menuitem_Trigger=$80426F32,
MUII_ListSelCur=10,
MUIA_Popasl_Active=$80421B37,
MUIA_Cycle_Active=$80421788,
MUIA_Radio_Active=$80429B41,
MUIA_Dirlist_NumBytes=$80429E26,
MUIA_List_Active=$8042391C,
MUIA_Application_Active=$804260AB,
MUIV_Colorpanel_SetColor_Active=-1,
MUIV_Colorpanel_GetColor_Active=-1,
MUIV_List_Exchange_Active=-1,
MUIV_List_Move_Active=-1,
MUIV_List_Redraw_Active=-1,
MUIV_List_Select_Active=-1,
MUIV_List_GetEntry_Active=-1,
MUIV_List_Jump_Active=-1,
MUIV_List_Remove_Active=-1,
MUIV_List_Insert_Active=-1,
MUIM_List_Jump=$8042BAAB,
MUIA_Poplist_Array=$8042084C,
MUIA_List_Visible=$8042191F,
MUIA_List_SourceArray=$8042C0A0,
MUIA_Prop_Visible=$8042FEA6,
MUIO_Label_LeftAligned=$400,
MUIO_MenustripNM=13,
MUIA_ShowMe=$80429BA8,
MUIA_Slider_Min=$8042E404,
MUIV_Listview_MultiSelect_Always=3,
MUIA_Window_Sleep=$8042E7DB,
MUIA_Application_Sleep=$80425711,
MUIA_Group_PageMode=$80421A5F,
MUIA_InputMode=$8042FB04,
MUII_ListCursor=8,
MPEN_SHADOW=4,
MPEN_HALF_SHADOW=3,
MUII_HSHADOWSHADOW=$8E,
MUII_SHADOW=$81,
MUIV_List_Active_Bottom=-3,
MUIM_List_NextSelected=$80425F17,
MUIA_Selected=$8042654B,
MUIA_InnerBottom=$8042F2C0,
MUIM_AskMinMax=$80423874,
MUIV_List_Exchange_Bottom=-2,
MUIV_List_Move_Bottom=-2,
MUIV_List_Jump_Bottom=-2,
MUIV_List_Remove_Selected=-3,
MUIV_List_Insert_Bottom=-3,
```

MUIA_Popobject_Light=\$8042A5A3,
MUIA_Popstring_Button=\$8042D0B9,
MUIV_Listview_ScrollerPos_Right=2,
MUIA_Virtgroup_Height=\$80423038,
MUIA_Group_SameHeight=\$8042037E,
MUIA_List_AdjustHeight=\$8042850D,
MUIA_Boopsi_MinHeight=\$80422C93,
MUIA_Boopsi_MaxHeight=\$8042757F,
MUIV_String_Format_Right=2,
MUIV_String_Format_Center=1,
MUIA_Bitmap_Height=\$80421560,
MUIA_Image_FontMatchHeight=\$80429F26,
MUIV_Frame_ImageButton=2,
MUIV_Frame_Button=1,
MUIV_Font_Big=-6,
MUIA_Weight=\$80421D1F,
MUIA_VertWeight=\$804298D0,
MUIA_InnerRight=\$804297FF,
MUIA_HorizWeight=\$80426DB9,
MUIA_Height=\$80423237,
MUIA_FixHeight=\$8042A92B,
MUIA_Window_SizeRight=\$80424780,
MUIA_Window_Height=\$80425846,
MUIA_Window_AltHeight=\$8042CCE3,
MUIA_Application_Copyright=\$8042EF4D,
MUII_RadioButton=16,
MUII_ArrowRight=14,
MUIO_PopButton=8,
MUIO_Button=2,
MUIA_Popobject_Object=\$804293E3,
MUIA_Boopsi_Object=\$80420178,
MUIA_String_Reject=\$8042179C,
MUIA_WindowObject=\$8042669E,
MUIA_ApplicationObject=\$8042D3EE,
MUIA_Window_RootObject=\$8042CBA5,
MUIA_Window_NeedsMouseObject=\$8042372A,
MUIA_Window_MouseObject=\$8042BF9B,
MUIA_Window_DefaultObject=\$804294D7,
MUIA_Window_ActiveObject=\$80427925,
MUIA_Application_DropObject=\$80421266,
MUIA_Application_DiskObject=\$804235CB,
MUII_HSHADOWBACK=\$8C,
MUII_HSHINEBACK=\$8B,
MUII_SHINEBACK=\$89,
MUII_FILLBACK=\$87,
MUII_SHADOWBACK=\$84,
MUIE_InvalidWindowObject=3,
MUIKEY_WINDOW_PREV=19,
MUIKEY_GADGET_PREV=15,
MUIKEY_LINESTART=12,
MUIA_Dirlist_Directory=\$8042EA41,
MUIM_List_GetEntry=\$804280EC,
MUIA_Group_Child=\$804226E6,
MUIA_Text_SetMin=\$80424E10,
MUIA_Background=\$8042545B,
MUIA_Family_Child=\$8042C696,
MUIA_Image_FontMatch=\$8042815D,

```
MUIA_Window_Borderless=$80429B79,  
MUIV_Window_Width_Scaled=$FFFFFFC18,  
MUIV_Window_Height_Scaled=$FFFFFFC18,  
MUIV_Window_AltWidth_Scaled=$FFFFFFC18,  
MUIV_Window_AltHeight_Scaled=$FFFFFFC18,  
MUIA_Dirlist_RejectIcons=$80424808,  
MUIV_Listview_ScrollerPos_Left=1,  
MUIA_Virtgroup_Left=$80429371,  
MUIA_Floattext_SkipChars=$80425C7D,  
MUIV_String_Format_Left=0,  
MUIA_InnerLeft=$804228F8,  
MUII_ArrowLeft=13,  
MUIA_Dirlist_FilesOnly=$8042896A,  
MUIA_Dirlist_DrawersOnly=$8042B379,  
MUIM_Show=$8042CC84,  
MUIA_Menuitem_Shortcut=$80422030,  
MUIM_Family_Transfer=$8042C14A,  
MUIM_Dirlist_ReRead=$80422D71,  
MUIA_Application_Broker=$8042DBCE,  
MUIM_Setup=$80428354,  
MADF_DRAWUPDATE=2,  
MUIA_Coloradjust_Red=$80420EAA,  
MUIA_Scrollgroup_FreeVert=$804224F2,  
MUIA_Colorfield_Red=$804279F6,  
MUIA_Image_FreeVert=$8042EA28,  
MUIA_FixHeightTxt=$804276F2,  
MUIA_AppMessage=$80421955,  
MUIV_Frame_Count=13,  
MUII_Count=$28,  
MUIKEY_PRESS=0,  
MUIA_Scrollgroup_FreeHoriz=$804292F3,  
MUIA_Group_Horiz=$8042536B,  
MUIA_Scale_Horiz=$8042919A,  
MUIA_Gauge_Horiz=$804232DD,  
MUIA_Prop_Horiz=$8042F4F3,  
MUIA_String_Integer=$80426E8A,  
MUIA_Image_FreeHoriz=$8042DA84,  
MUIA_FramePhantomHoriz=$8042ED76,  
MUIM_WriteLong=$80428D86,  
MUIO_Radio=5,  
MUIA_Virtgroup_Top=$80425200,  
MUIV_List_Active_Top=-2,  
MUIA_Prop_Slider=$80429C3A,  
MUIA_Bodychunk_Depth=$8042C392,  
MUIV_Frame_Slider=12,  
MUIV_List_Exchange_Top=0,  
MUIV_List_Move_Top=0,  
MUIV_List_Jump_Top=0,  
MUIV_List_Insert_Top=0,  
MUIV_Notify_Self=1,  
MUIO_Slider=6,  
MUIV_List_Active_Off=-1,  
MUIA_Bodychunk_Body=$8042CA67,  
MUIA_Window_Menustrip=$8042855E,  
MUIA_Application_Menustrip=$804252D9,  
MUIV_List_Select_Off=0,  
MUIE_OutOfGfxMemory=2,
```

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MUIE_OutOfMemory=1,
MUIA_Group_VertSpacing=$8042E1BF,
MUIA_Group_Spacing=$8042866D,
MUIA_Group_HorizSpacing=$8042C651,
MUIA_Application_UseCommodities=$80425EE5,
MUIA_Image_Spec=$804233D5,
MUIA_Popasl_StopHook=$8042D8D2,
MUIA_Popasl_StartHook=$8042B703,
MUIA_Popobject_WindowHook=$8042F194,
MUIA_Popobject_StrObjHook=$8042FBE1,
MUIA_Popobject_ObjStrHook=$8042DB44,
MUIA_Popstring_OpenHook=$80429D00,
MUIA_Popstring_CloseHook=$804256BF,
MUIA_Dirlist_FilterHook=$8042AE19,
MUIA_List_MultiTestHook=$8042C2C6,
MUIA_List_DisplayHook=$8042B4D5,
MUIA_List_DestructHook=$804297CE,
MUIA_List_ConstructHook=$8042894F,
MUIA_List_CompareHook=$80425C14,
MUIA_Boopsi_TagWindow=$8042E11D,
MUIA_String_EditHook=$80424C33,
MUIA_Rectangle_HBar=$8042C943,
MUIA_Window=$80421591,
MUIA_Window_Window=$80426A42,
MUIA_Window_RefWindow=$804201F4,
MUIA_Window_AppWindow=$804280CF,
MUIA_Application_Window=$8042BFEO,
MUIA_Application_RexxHook=$80427C42,
MUIA_Application_BrokerHook=$80428F4B,
MUIM_CallHook=$8042B96B,
MUIV_Notify_Window=2,
MUIO_HBar=11,
MUIA_String_MaxLen=$80424984,
MUII_Cycle=17,
MUIO_Cycle=4,
MUII_Network=28,
MUIA_Boopsi_Class=$80426999,
MUIA_Popstring_Toggle=$80422B7A,
MUIV_Group_ActivePage_Last=-1,
MUIV_Dirlist_SortDirs_Last=1,
MUIA_List_Title=$80423E66,
MUIV_InputMode_Toggle=3,
MUIV_Font_Title=-5,
MUIA_FrameTitle=$8042D1C7,
MUIA_Window_Title=$8042AD3D,
MUIA_Window_ScreenTitle=$804234B0,
MUIA_Application_Title=$804281B8,
MUIA_Menuitem_Toggle=$80424D5C,
MUIA_Menuitem_Title=$804218BE,
MUIA_Menu_Title=$8042A0E3,
MUIV_List_Select_Toggle=2,
MUIV_List_Remove_Last=-2,
MUIO_BarTitle=15,
MUIA_Text_HiChar=$804218FF,
MUIA_ControlChar=$8042120B,
MADF_DRAWOBJECT=1,
MUIA_Application_HelpFile=$804293F4,
```

```
MUIA_HelpFile=$80423A6E,  
MUII_PopFile=19,  
MUIA_Virtgroup_Width=$80427C49,  
MUIA_Group_SameWidth=$8042B3EC,  
MUIA_List_AdjustWidth=$8042354A,  
MUIA_Boopsi_MinWidth=$80428FB2,  
MUIA_Boopsi_MaxWidth=$8042BCB1,  
MUIA_Bitmap_Width=$8042EB3A,  
MUIA_Image_FontMatchWidth=$804239BF,  
MUIA_Width=$8042B59C,  
MUIA_FixWidth=$8042A3F1,  
MUIA_Window_Width=$8042DCAE,  
MUIA_Window_AltWidth=$804260F4,  
MUIV_Listview_MultiSelect_Shifted=2,  
MUIA_Application_MenuHelp=$8042540B,  
MUIM_Application_ShowHelp=$80426479,  
MUIA_Floattext_Justify=$8042DC03,  
MUIM_Application_Save=$804227EF,  
MUIA_NoNotify=$804237F9,  
MUIA_HelpLine=$8042A825,  
MUIM_Notify=$8042C9CB,  
MUIM_KillNotify=$8042D240,  
MUIA_Dirlist_RejectPattern=$804259C7,  
MUIA_Dirlist_AcceptPattern=$8042760A,  
MUIA_Bodychunk_Compression=$8042DE5F,  
MUIA_Application_Version=$8042B33F,  
MUIA_Version=$80422301,  
MUIA_Revision=$80427EAA,  
MUIV_Cycle_Active_Next=-1,  
MUIV_Group_ActivePage_Next=-3,  
MUIV_Window_ActiveObject_Next=-1,  
MUIA_Menuitem_Exclude=$80420BC6,  
MUIV_List_Exchange_Next=-3,  
MUIV_List_Move_Next=-3,  
MUI_RXERR_BADDEFINITION=-1,  
MUIA_Bitmap_Bitmap=$804279BD,  
MUIKEY_UP=2,  
MUIV_NotTriggerValue=$49893133,  
MUIV_TriggerValue=$49893131,  
MUIV_List_Exchange_Previous=-4,  
MUIV_List_Move_Previous=-4,  
MUIMASTER_VMIN=10,  
MUIV_Dirlist_SortType_Name=0,  
MUIA_Slider_Level=$8042AE3A,  
MUIV_List_Active_PageUp=-6,  
MUIKEY_WINDOW_CLOSE=17,  
MUIA_Font=$8042BE50,  
MUIV_Application_Load_ENV=0,  
MUIV_Application_Save_ENV=0,  
MUIA_Palette_Entries=$8042A3D8,  
MUIA_Cycle_Entries=$80420629,  
MUIA_Radio_Entries=$8042B6A1,  
MUIV_List_CursorType_Rect=2,  
MUIA_List_Entries=$80421654,  
MUIA_Prop_Entries=$8042FBDB,  
MUIA_ExportID=$8042D76E,  
MUIKEY_PAGEUP=4,
```

MPEN_TEXT=5,
MUIA_Window_Activate=\$80428D2F,
MUI_RXERR_BADSYNTAX=-4,
MUIM_Application_Load=\$8042F90D,
MUIA_Rectangle_VBar=\$80422204,
MUIO_VBar=12,
MUIA_Palette_Names=\$8042C3A2,
MUIA_Scrollgroup_Contents=\$80421261,
MUIM_List_Move=\$804253C2,
MUIM_List_Remove=\$8042647E,
MUIA_String_Contents=\$80428FFD,
MUIA_Text_Contents=\$8042F8DC,
MUIV_Frame_PopUp=10,
MUIM_Family_Remove=\$8042F8A9,
MUII_PopUp=18,
MUIV_List_Active_PageDown=-7,
MUIV_List_Active_Down=-5,
MUIA_Application_BrokerPort=\$8042E0AD,
MUII_TapeDown=\$27,
MUII_ArrowDown=12,
MUIV_Dirlist_Status_Valid=2,
MUIV_Dirlist_Status_Invalid=0,
MUIV_Frame_Virtual=11,
MUIM_Window_SetCycleChain=\$80426510,
MUIKEY_POPUP=21,
MUIA_Register_Titles=\$804297EC,
MUIA_InnerTop=\$80421EB6,
MUIA_Listview_Input=\$8042682D,
MUIM_HandleInput=\$80422A1A,
MUIM_Application_Input=\$8042D0F5,
MUIO_Label=1,
MUIV_Frame_Group=9,
MUIA_Popobject_Volatile=\$804252EC,
MUIA_HelpNode=\$80420B85,
MUIM_Set=\$8042549A,
MUIV_Window_TopEdge_Centered=-1,
MUIV_Window_LeftEdge_Centered=-1,
MUIV_Window_AltTopEdge_Centered=-1,
MUIV_Window_AltLeftEdge_Centered=-1,
MUIM_Application_PushMethod=\$80429EF8,
MUIM_Application_InputBuffered=\$80427E59,
MUIO_Label_Centered=\$800,
MUIA_Application_RexxMsg=\$8042FD88,
MUII_TapeUp=\$26,
MUIA_Slider_Max=\$8042D78A,
MUIA_Gauge_Max=\$8042BCDB,
MUIA_String_DisplayPos=\$8042CCBF,
MUIV_InputMode_RelVerify=1,
MUIV_Font_Normal=-1,
MUIA_Window_NoMenus=\$80429DF5,
MUIM_Window_ToBack=\$8042152E,
MUIM_Window_ScreenToBack=\$8042913D,
MUII_SliderBack=\$24,
MUII_GroupBack=\$23,
MUII_TapePlayBack=31,
MUII_PopUpBack=27,
MUII_SelectedBack=7,

```
MUII_PopupBack=6,  
MUII_PropBack=5,  
MUII_TextBack=4,  
MUII_ListBack=3,  
MUII_ButtonBack=2,  
MUII_RequesterBack=1,  
MUII_WindowBack=0,  
MUIV_Cycle_Active_Prev=-2,  
MUIV_Group_ActivePage_Prev=-2,  
MUIV_Window_ActiveObject_Prev=-2,  
MUIA_Application_DoubleStart=$80423BC6,  
MUIV_List_NextSelected_Start=-1,  
MUIA_Dirlist_NumFiles=$8042A6F0,  
MUIKEY_RELEASE=-2,  
MUIA_Coloradjust_Green=$804285AB,  
MUIA_Colorfield_Green=$80424466,  
MUIA_Boopsi_TagScreen=$8042BC71,  
MUIA_Window_Screen=$8042DF4F,  
MUIA_Window_PublicScreen=$804278E4,  
MUII_TapePlay=30,  
MUIV_List_CursorType_Bar=1,  
MUIA_List_Format=$80423C0A,  
MUIA_String_Format=$80427484,  
MUIA_Application_SingleTask=$8042A2C8,  
MUII_TapePause=$20,  
MUIE_SingleTask=6,  
MUIA_Group_Columns=$8042F416,  
MUIA_Dirlist_Status=$804240DE,  
MUIA_Slider_Reverse=$8042F2A0,  
MUIA_Application_Author=$80424842,  
MUIV_EveryTime=$49893131,  
MUIA_Disabled=$80423661,  
MUIA_Menuitem_Enabled=$8042AE0F,  
MUIA_Menu_Enabled=$8042ED48,  
MUIA_Menustrip_Enabled=$8042815B,  
MUIA_Text_SetMax=$80424D0A,  
MUIA_Application_Commands=$80428648,  
MUIA_Window_ID=$804201BD,  
MUIA_UserData=$80420313,  
MUIM_SetUDData=$8042C920,  
MUIM_GetUDData=$8042ED0C,  
MUIM_FindUDData=$8042C196,  
MUIM_List_InsertSingle=$804254D5,  
MUIA_Listview_List=$8042BCCE,  
MUIA_String_AttachedList=$80420FD2,  
MUIV_Frame_InputList=6,  
MUIV_Frame_ReadList=5,  
MUIV_Font_List=-2,  
MUII_CheckMark=15,  
MUIO_Checkmark=3,  
MUIV_Dirlist_SortType_Date=1,  
MUIA_Image_State=$8042A3AD,  
MUIA_ShowSelState=$8042CAAC,  
MUIM_Window_SetMenuState=$80422B5E,  
MUIM_Window_GetMenuState=$80420D2F,  
MUIM_Application_SetMenuState=$80428BEF,  
MUIM_Application_GetMenuState=$8042A58F,
```

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MUIA_Dirlist_NumDrawers=$80429CB8,  
MUIA_Dirlist_FilterDrawers=$80424AD2,  
MUII_TapeRecord=$22,  
MUIA_Boopsi_ClassID=$8042BFA3,  
MUIM_NoNotifySet=$8042216F,  
MUIM_MultiSet=$8042D356,  
MUII_FILLBACK2=$8A,  
MUIA_Listview_ScrollerPos=$8042B1B4,  
MUIA_String_BufferPos=$80428B6C,  
MUIKEY_NONE=-1,  
MUIA_Boopsi_Smart=$8042B8D7,  
MUI_RXERR_UNKNOWNCOMMAND=-3,  
MUI_MAXMAX=$2710,  
MUIM_Popstring_Open=$804258BA,  
MUIA_Group_Rows=$8042B68F,  
MUIV_Frame_Gauge=8,  
MUIA_Window_Open=$80428AA0,  
MBQ_MUI_MAXMAX=$2710,  
MUII_SliderKnob=$25,  
MUII_PropKnob=21,  
MUIKEY_TOP=6,  
MUIV_Dirlist_Status_Reading=1,  
MUIKEY_GADGET_OFF=16,  
MUIA_Slider_Quiet=$80420B26,  
MUIA_List_Quiet=$8042D8C7,  
MUIA_Application_ForceQuit=$804257DF,  
MUIV_Application_ReturnID_Quit=-1,  
MUIM_Family_AddHead=$8042E200,  
MUIV_InputMode_Immediate=2,  
MUIV_Font_Inherit=0,  
MUIO_VSpace=10,  
MUIO_HSpace=9,  
MUIA_String_Acknowledge=$8042026C,  
MUIA_TopEdge=$8042509B,  
MUIA_RightEdge=$8042BA82,  
MUIA_LeftEdge=$8042BEC6,  
MUIA_BottomEdge=$8042E552,  
MUIA_Window_TopEdge=$80427C66,  
MUIA_Window_LeftEdge=$80426C65,  
MUIA_Window_AltTopEdge=$8042E99B,  
MUIA_Window_AltLeftEdge=$80422D65,  
MUIV_List_Select_Ask=3,  
MUIM_List_Sort=$80422275,  
MUIA_Window_InputEvent=$804247D8,  
MUIM_Family_Sort=$80421C49,  
MUIV_Group_ActivePage_First=0,  
MUIV_Dirlist_SortDirs_First=0,  
MUIA_List_First=$804238D4,  
MUIA_Prop_First=$8042D4B2,  
MUIA_Window_Backdrop=$8042C0BB,  
MUIV_List_Remove_First=0,  
MUIV_List_Insert_Sorted=-2,  
MUII_Chip=25,  
MUIKEY_BOTTOM=7,  
MUIKEY_WORDRIGHT=11,  
MUIKEY_RIGHT=9,  
MUIA_Application_Base=$8042E07A,
```

```
MUII_TapeStop=$21,
MUIV_Window_TopEdge_Moused=-2,
MUIV_Window_LeftEdge_Moused=-2,
MUIV_Window_AltTopEdge_Moused=-2,
MUIV_Window_AltLeftEdge_Moused=-2,
MUIM_Application_ReturnID=$804276EF,
MUIE_MissingLibrary=4,
MUIA_Group_SameSize=$80420860,
MUIV_Dirlist_SortType_Size=2,
MUIA_Floattext_TabSize=$80427D17,
MPEN_BACKGROUND=2,
MUIA_Popobject_Follow=$80424CB5,
MUIA_Image_OldImage=$80424F3D,
MUII_BACKGROUND=$80,
MUIV_Font_Tiny=-3,
MUIA_Timer=$80426435,
MUIA_Listview_SelectChange=$8042178F,
MUIM_List_Exchange=$8042468C,
MUIV_Window_AltTopEdge_NoChange=$FFFFFFC18,
MUIV_Window_AltLeftEdge_NoChange=$FFFFFFC18,
MUIM_Hide=$8042F20F,
MUIA_Listview_DoubleClick=$80424635,
MUIA_String_Secret=$80428769,
MUIM_Window_ToFront=$8042554F,
MUIM_Window_ScreenToFront=$804227A4,
MUIA_Palette_Groupable=$80423E67,
MUIA_List_InsertPosition=$8042D0CD,
MUIA_Bitmap_MappingTable=$8042E23D,
MUIA_Window_MenuAction=$80427521,
MUIA_Application_MenuAction=$80428961,
MUIA_Application_Description=$80421FC6,
MUIV_Notify_Application=3,
MC_TEMPLATE_ID=-1,
MUIKEY_WORDLEFT=10,
MUIKEY_LEFT=8,
MUIA_Coloradjust_RGB=$8042F899,
MUIA_Colorfield_RGB=$8042677A,
MUIA_Menuitem_Checked=$8042562A,
MUIM_List_Clear=$8042AD89,
MUIA_Coloradjust_Blue=$8042B8A3,
MUIA_Colorfield_Blue=$8042D3B0,
MUIV_List_Select_On=1,
MUIKEY_LINEEND=13,
MUIA_Bitmap_SourceColors=$80425360,
MUIM_Popstring_Close=$8042DC52,
MUIM_Family_AddTail=$8042D752,
MUIKEY_COUNT=22,
MPEN_COUNT=8,
MUIA_Dirlist_SortDirs=$8042BBB9,
MUIA_Dirlist_MultiSelDirs=$80428653,
MUIA_String_Accept=$8042E3E1,
MUIM_BoopsiQuery=$80427157,
MUIA_Window_SizeGadget=$8042E33D,
MUIA_Window_DepthGadget=$80421923,
MUIA_Window_CloseGadget=$8042A110,
MUIA_Colorfield_Pen=$8042713A,
MUIA_Popstring_String=$804239EA,
```

```
MUIV_List_DestructHook_String=-1,
MUIV_List_CopyHook_String=-1,
MUIV_List_ConstructHook_String=-1,
MUIV_Frame_String=4,
MUIA_Application_RexxString=$8042D711,
MUIM_WriteString=$80424BF4,
MUIM_SetAsString=$80422590,
MUII_Volume=26,
MUIO_String=7,
MUIA_Floattext_Text=$8042D16A,
MUIA_Gauge_InfoText=$8042BF15,
MUIV_Frame_Text=3,
MUIV_Font_Fixed=-4,
MUI_RXERR_OUTOFMEMORY=-2,
MPEN_ACTIVEOBJ=7,
MUIM_Window_SetMenuCheck=$80422243,
MUIM_Window_GetMenuCheck=$80420414,
MUIM_Application_SetMenuCheck=$8042A707,
MUIM_Application_GetMenuCheck=$8042C0A7,
MUIA_Window_DragBar=$8042045D,
MUII_Disk=24,
MUII_HardDisk=23,
MUIA_Dirlist_SortHighLow=$80421896,
MUIA_Boopsi_Remember=$8042F4BD,
MUIA_FixWidthTxt=$8042D044,
MUIM_Cleanup=$8042D985,
MUIA_Window_CloseRequest=$8042E86E,
MUIV_Application_Load_ENVARC=-1,
MUIV_Application_Save_ENVARC=-1,
MUIA_Listview_DefClickColumn=$8042B296,
MUIA_Listview_ClickColumn=$8042D1B3,
MUIM_List_Redraw=$80427993,
MUIM_Draw=$80426F3F,
MUIV_List_Active_Up=-4,
MUIV_Listview_ScrollerPos_Default=0,
MUIV_Listview_MultiSelect_Default=1,
MUIV_Window_Width_Default=$FFFFFFC17,
MUIV_Window_Height_Default=$FFFFFFC17,
MPEN_HALFSHINE=1,
MPEN_SHINE=0,
MUIA_Pressed=$80423535,
MUIA_Window_FancyDrawing=$8042BD0E,
MUII_HSHINESHINE=$8D,
MUII_FILLSHINE=$88,
MUII_SHADOWSHINE=$86,
MUII_SHINE=$82,
MUIKEY_TOGGLE=1,
MUIV_Palette_Entry_End=-1,
MUIV_List_NextSelected_End=-1,
MUI_TRUE=1,
MUIV_Dirlist_SortDirs_Mix=2,
MUIA_Text_PreParse=$8042566D,
MUIA_Gauge_Divide=$8042D8DF,
MUIV_List_Redraw_All=-2,
MUIV_List_Select_All=-2,
MUIKEY_HELP=20,
MUIA_Menuitem_Checkit=$80425ACE,
```

```
MUII_ArrowUp=11,  
MUIA_Listview_MultiSelect=$80427E08,  
MUIM_List_Select=$804252D8,  
MUIA_Bodychunk_Masking=$80423B0E,  
MUII_ListSelect=9,  
MPEN_FILL=6,  
MUII_SHADOWFILL=$85,  
MUII_FILL=$83,  
MUIKEY_WINDOW_NEXT=18,  
MUIKEY_GADGET_NEXT=14,  
MUII_Assign=29,  
MUIM_List_Insert=$80426C87,  
MUIM_Family_Insert=$80424D34,  
MUIA_Group_ActivePage=$80424199,  
MUIA_Dirlist_Path=$80426176,  
MUIV_Window_Menu_NoMenu=-1,  
MUIA_Window_Menu=$8042DB94,  
MUIA_Application_Menu=$80420E1F,  
MUII_Drawer=22,  
MUII_PopDrawer=20
```

```
#define muiRenderInfo/1  
#define muiGlobalInfo/1  
#define _rp/1  
#define setmutex/2  
#define MUIC_Menuitem/0  
#define GroupFrame/0  
#define VirtualFrame/0  
#define GaugeFrame/0  
#define SliderFrame/0  
#define PropFrame/0  
#define InputListFrame/0  
#define ReadListFrame/0  
#define StringFrame/0  
#define TextFrame/0  
#define ImageButtonFrame/0  
#define ButtonFrame/0  
#define NoFrame/0  
#define MUIC_Prop/0  
#define _dri/1  
#define _top/1  
#define MUIV_Window_Width_Visible/1  
#define MUIV_Window_Height_Visible/1  
#define MUIV_Window_AltWidth_Visible/1  
#define MUIV_Window_AltHeight_Visible/1  
#define MUIC_Palette/0  
#define MUIC_Listview/0  
#define _mbottom/1  
#define _bottom/1  
#define MUIV_Window_Width_MinMax/1  
#define MUIV_Window_Height_MinMax/1  
#define MUIV_Window_AltWidth_MinMax/1  
#define MUIV_Window_AltHeight_MinMax/1  
#define _mright/1  
#define _mheight/1  
#define _subheight/1  
#define _right/1
```

```
#define _height/1
#define PopButton/1
#define KeyButton/2
#define SimpleButton/1
#define VCenter/1
#define HCenter/1
#define _addtop/1
#define ScrmodelistObject/0
#define Popas1Object/0
#define PoplistObject/0
#define PopobjectObject/0
#define PopstringObject/0
#define ScrollgroupObject/0
#define VirtgroupObject/0
#define RegisterObject/0
#define GroupObject/0
#define PaletteObject/0
#define ColoradjustObject/0
#define ColorpanelObject/0
#define ColorfieldObject/0
#define BoopsiObject/0
#define ScaleObject/0
#define GaugeObject/0
#define CycleObject/0
#define SliderObject/0
#define DirlistObject/0
#define FloattextObject/0
#define VolumelistObject/0
#define RadioObject/0
#define ListviewObject/0
#define ScrollbarObject/0
#define StringObject/0
#define PropObject/0
#define ListObject/0
#define RectangleObject/0
#define TextObject/0
#define ApplicationObject/0
#define NotifyObject/0
#define BodychunkObject/0
#define BitmapObject/0
#define ImageObject/0
#define WindowObject/0
#define MenuItemObject/0
#define MenuObject/0
#define MenustripObject/0
#define MUIC_Popobject/0
#define Child/0
#define MUIC_Scrollbar/0
#define _mleft/1
#define _addleft/1
#define _left/1
#define get/3
#define MUIC_Register/0
#define KeyRadio/3
#define Radio/2
#define MUIC_Radio/0
#define _mtop/1
```

```
#define setslider/2
#define KeySlider/4
#define Slider/3
#define MUIC_Slider/0
#define MUIC_Menustrip/0
#define GroupSpacing/1
#define InnerSpacing/2
#define _window/1
#define SubWindow/0
#define MUIC_Window/0
#define setcycle/2
#define KeyCycle/2
#define Cycle/1
#define MUIC_Cycle/0
#define _app/1
#define GroupFrameT/1
#define End/0
#define _mwidth/1
#define _subwidth/1
#define _width/1
#define MUIC_Notify/0
#define MenuObjectT/1
#define MUIC_Bitmap/0
#define MUIC_Scale/0
#define _flags/1
#define _font/1
#define PageGroupV/0
#define RowGroupV/1
#define ColGroupV/1
#define HGroupV/0
#define VGroupV/0
#define _win/1
#define WindowContents/0
#define KeyLLabel/2
#define KeyLabel/2
#define LLabel/1
#define Label/1
#define RegisterGroup/1
#define PageGroup/0
#define RowGroup/1
#define ColGroup/1
#define HGroup/0
#define VGroup/0
#define MUIC_Scrollgroup/0
#define MUIC_Virtgroup/0
#define MUIC_Group/0
#define _screen/1
#define MUIV_Window_Width_Screen/1
#define MUIV_Window_Height_Screen/1
#define MUIV_Window_AltWidth_Screen/1
#define MUIV_Window_AltHeight_Screen/1
#define MUIX_PH/0
#define muiUserData/1
#define muiAreaData/1
#define muiNotifyData/1
#define MUIC_Rectangle/0
#define setcheckmark/2
```

```
#define KeyCheckMark/2
#define CheckMark/1
#define MUIC_Poplist/0
#define MUIC_Dirlist/0
#define MUIC_Scrmodelist/0
#define MUIC_Volumelist/0
#define MUIC_List/0
#define MUIX_PT/0
#define MUIC_Colorpanel/0
#define MUIC_Gauge/0
#define VSpace/1
#define HSpace/1
#define HVSpace/0
#define StringMUI/2
#define MUIC_Boopsi/0
#define MUIC_Colorfield/0
#define MUIC_Family/0
#define set/3
#define MUIC_Image/0
#define MUIC_Coloradjust/0
#define MUIC_Application/0
#define MUIX_B/0
#define KeyLLabel1/2
#define KeyLabel1/2
#define LLabel1/1
#define Label1/1
#define MUIX_C/0
#define KeyLLabel2/2
#define KeyLabel2/2
#define LLabel2/1
#define Label2/1
#define MUIX_I/0
#define MUIP_BoopsiQuery/0
#define MUIX_L/0
#define setstring/2
#define KeyString/3
#define MUIC_Popstring/0
#define MUIC_String/0
#define MUIX_N/0
#define MUIC_Floatttext/0
#define MUIC_Text/0
#define MUIC_Area/0
#define MUIX_R/0
#define MUIX_U/0
#define MUIC_Bodychunk/0
#define nnset/3
#define MUIC_Popasl/0
#define MUIV_Window_TopEdge_Delta/1
#define MUIV_Window_AltTopEdge_Delta/1
#define MUIC_Menu/0
#define MUIMASTER_NAME/0
```

1.160 muip.m

```
(----) OBJECT muip_popstring_close
( 0) id:LONG
( 4) result:LONG
(----) ENDOBJECT /* SIZEOF=8 */

(----) OBJECT muip_list_select
( 0) id:LONG
( 4) pos:LONG
( 8) seltype:LONG
(12) state:PTR TO LONG
(----) ENDOBJECT /* SIZEOF=16 */

(----) OBJECT muip_list_remove
( 0) id:LONG
( 4) pos:LONG
(----) ENDOBJECT /* SIZEOF=8 */

(----) OBJECT muip_list_redraw
( 0) id:LONG
( 4) pos:LONG
(----) ENDOBJECT /* SIZEOF=8 */

(----) OBJECT muip_list_nextselected
( 0) id:LONG
( 4) pos:PTR TO LONG
(----) ENDOBJECT /* SIZEOF=8 */

(----) OBJECT muip_list_move
( 0) id:LONG
( 4) from:LONG
( 8) to:LONG
(----) ENDOBJECT /* SIZEOF=12 */

(----) OBJECT muip_list_jump
( 0) id:LONG
( 4) pos:LONG
(----) ENDOBJECT /* SIZEOF=8 */

(----) OBJECT muip_list_insertsingle
( 0) id:LONG
( 4) entry:LONG
( 8) pos:LONG
(----) ENDOBJECT /* SIZEOF=12 */

(----) OBJECT muip_list_insert
( 0) id:LONG
( 4) entries:PTR TO LONG
( 8) count:LONG
(12) pos:LONG
(----) ENDOBJECT /* SIZEOF=16 */

(----) OBJECT muip_list_getentry
( 0) id:LONG
( 4) pos:LONG
( 8) entry:PTR TO LONG
(----) ENDOBJECT /* SIZEOF=12 */
```

```
(----) OBJECT muip_list_exchange
( 0) id:LONG
( 4) pos1:LONG
( 8) pos2:LONG
(----) ENDOBJECT /* SIZEOF=12 */

(----) OBJECT muip_setup
( 0) id:LONG
( 4) renderinfo:PTR TO mui_renderinfo
(----) ENDOBJECT /* SIZEOF=8 */

(----) OBJECT muip_handlerinput
( 0) id:LONG
( 4) imsg:PTR TO intuimessage
( 8) muikey:LONG
(----) ENDOBJECT /* SIZEOF=12 */

(----) OBJECT muip_draw
( 0) id:LONG
( 4) flags:LONG
(----) ENDOBJECT /* SIZEOF=8 */

(----) OBJECT muip_askminmax
( 0) id:LONG
( 4) minmaxinfo:PTR TO mui_minmax
(----) ENDOBJECT /* SIZEOF=8 */

(----) OBJECT muip_window_setmenustate
( 0) id:LONG
( 4) menuid:LONG
( 8) stat:LONG
(----) ENDOBJECT /* SIZEOF=12 */

(----) OBJECT muip_window_setmenucheck
( 0) id:LONG
( 4) menuid:LONG
( 8) stat:LONG
(----) ENDOBJECT /* SIZEOF=12 */

(----) OBJECT muip_window_setcyclechain
( 0) id:LONG
( 4) obj:PTR TO LONG
(----) ENDOBJECT /* SIZEOF=8 */

(----) OBJECT muip_window_getmenustate
( 0) id:LONG
( 4) menuid:LONG
(----) ENDOBJECT /* SIZEOF=8 */

(----) OBJECT muip_window_getmenucheck
( 0) id:LONG
( 4) menuid:LONG
(----) ENDOBJECT /* SIZEOF=8 */

(----) OBJECT muip_application_showhelp
( 0) id:LONG
```

```
( 4) window:PTR TO LONG
( 8) name:PTR TO CHAR
(12) node:PTR TO CHAR
(16) line:LONG
(----) ENDOBJECT      /* SIZEOF=20 */

(----) OBJECT muip_application_setmenustate
( 0) id:LONG
( 4) menuid:LONG
( 8) stat:LONG
(----) ENDOBJECT      /* SIZEOF=12 */

(----) OBJECT muip_application_setmenucheck
( 0) id:LONG
( 4) menuid:LONG
( 8) stat:LONG
(----) ENDOBJECT      /* SIZEOF=12 */

(----) OBJECT muip_application_save
( 0) id:LONG
( 4) name:LONG
(----) ENDOBJECT      /* SIZEOF=8 */

(----) OBJECT muip_application_returnid
( 0) id:LONG
( 4) retid:LONG
(----) ENDOBJECT      /* SIZEOF=8 */

(----) OBJECT muip_application_pushmethod
( 0) id:LONG
( 4) dest:PTR TO LONG
( 8) count:LONG
(----) ENDOBJECT      /* SIZEOF=12 */

(----) OBJECT muip_application_load
( 0) id:LONG
( 4) name:LONG
(----) ENDOBJECT      /* SIZEOF=8 */

(----) OBJECT muip_application_input
( 0) id:LONG
( 4) signal:LONG
(----) ENDOBJECT      /* SIZEOF=8 */

(----) OBJECT muip_application_getmenustate
( 0) id:LONG
( 4) menuid:LONG
(----) ENDOBJECT      /* SIZEOF=8 */

(----) OBJECT muip_application_getmenucheck
( 0) id:LONG
( 4) menuid:LONG
(----) ENDOBJECT      /* SIZEOF=8 */

(----) OBJECT muip_family_transfer
( 0) id:LONG
( 4) family:PTR TO LONG
```

```
(----) ENDOBJECT      /* SIZEOF=8 */

(----) OBJECT muip_family_sort
(  0)   id:LONG
(  4)   obj:PTR TO LONG
(----) ENDOBJECT      /* SIZEOF=8 */

(----) OBJECT muip_family_remove
(  0)   id:LONG
(  4)   obj:PTR TO LONG
(----) ENDOBJECT      /* SIZEOF=8 */

(----) OBJECT muip_family_insert
(  0)   id:LONG
(  4)   obj:PTR TO LONG
(  8)   pred:PTR TO LONG
(----) ENDOBJECT      /* SIZEOF=12 */

(----) OBJECT muip_family_addtail
(  0)   id:LONG
(  4)   obj:PTR TO LONG
(----) ENDOBJECT      /* SIZEOF=8 */

(----) OBJECT muip_family_addhead
(  0)   id:LONG
(  4)   obj:PTR TO LONG
(----) ENDOBJECT      /* SIZEOF=8 */

(----) OBJECT muip_writestring
(  0)   id:LONG
(  4)   str:PTR TO CHAR
(  8)   memory:PTR TO CHAR
(----) ENDOBJECT      /* SIZEOF=12 */

(----) OBJECT muip_writelong
(  0)   id:LONG
(  4)   val:LONG
(  8)   memory:PTR TO LONG
(----) ENDOBJECT      /* SIZEOF=12 */

(----) OBJECT muip_setudata
(  0)   id:LONG
(  4)   udata:LONG
(  8)   attr:LONG
( 12)   val:LONG
(----) ENDOBJECT      /* SIZEOF=16 */

(----) OBJECT muip_setasstring
(  0)   id:LONG
(  4)   attr:LONG
(  8)   format:PTR TO CHAR
( 12)   val:LONG
(----) ENDOBJECT      /* SIZEOF=16 */

(----) OBJECT muip_set
(  0)   id:LONG
(  4)   attr:LONG
```

```

( 8)   val:LONG
(----) ENDOBJECT      /* SIZEOF=12 */

(----) OBJECT muip_notify
( 0)   id:LONG
( 4)   trigattr:LONG
( 8)   trigval:LONG
(12)   destobj:LONG
(16)   followparams:LONG
(----) ENDOBJECT      /* SIZEOF=20 */

(----) OBJECT muip_nonotifyset
( 0)   id:LONG
( 4)   attr:LONG
( 8)   format:PTR TO CHAR
(12)   val:LONG
(----) ENDOBJECT      /* SIZEOF=16 */

(----) OBJECT muip_multiset
( 0)   id:LONG
( 4)   attr:LONG
( 8)   val:LONG
(12)   obj:LONG
(----) ENDOBJECT      /* SIZEOF=16 */

(----) OBJECT muip_killnotify
( 0)   id:LONG
( 4)   trigattr:LONG
(----) ENDOBJECT      /* SIZEOF=8 */

(----) OBJECT muip_getudata
( 0)   id:LONG
( 4)   udata:LONG
( 8)   attr:LONG
(12)   storage:PTR TO LONG
(----) ENDOBJECT      /* SIZEOF=16 */

(----) OBJECT muip_findudata
( 0)   id:LONG
( 4)   udata:LONG
(----) ENDOBJECT      /* SIZEOF=8 */

(----) OBJECT muip_callhook
( 0)   id:LONG
( 4)   hook:PTR TO hook
( 8)   param1:LONG
(----) ENDOBJECT      /* SIZEOF=12 */

```

1.161 nofrag.m

```

(----) OBJECT nofragbase
( 0)   lib:substructure
(----) ENDOBJECT      /* SIZEOF=34 */

```

```
CONST NOFRAG_VERSION=2,
```

```

        NOFRAG_REVISION=2

(----) OBJECT memoryblock
(  0)  next:LONG
(  4)  previous:LONG
(  8)  requirements:LONG
( 12)  bytesused:LONG
(----) ENDOBJECT      /* SIZEOF=16 */

(----) OBJECT memoryitem
(  0)  next:LONG
(  4)  previous:LONG
(  8)  block:LONG
( 12)  size:LONG
(----) ENDOBJECT      /* SIZEOF=16 */

(----) OBJECT blocklist
(  0)  first:LONG
(  4)  end:LONG
(  8)  last:LONG
(----) ENDOBJECT      /* SIZEOF=12 */

(----) OBJECT itemlist
(  0)  first:LONG
(  4)  end:LONG
(  8)  last:LONG
(----) ENDOBJECT      /* SIZEOF=12 */

(----) OBJECT memorychain
(  0)  blocks:substructure
( 12)  items:substructure
( 24)  blocksize:LONG
(----) ENDOBJECT      /* SIZEOF=28 */

CONST MINALLOC=16

```

1.162 nonvolatile.m

```

(----) OBJECT nventry
(  0)  node:mln (or ARRAY OF mln)
(  8)  name:PTR TO CHAR
( 12)  size:LONG
( 16)  protection:LONG
(----) ENDOBJECT      /* SIZEOF=20 */

(----) OBJECT nvinfo
(  0)  maxstorage:LONG
(  4)  freestorage:LONG
(----) ENDOBJECT      /* SIZEOF=8 */

CONST NVERR_FAIL=3,
      NVERR_FATAL=4,
      NVERR_WRITEPROT=2,
      NVEF_DELETE=1,
      NVEB_DELETE=0,

```



```

NVERR_BADNAME=1,
NVEF_APPNAME=$80000000,
NVEB_APPNAME=31

```

```
#define SizeNVData/1
```

1.163 ppbase.m

```
CONST PPVERSION=$23
```

```

(----) OBJECT ppbase
(  0)   lib:substructure
( 34)   flags:CHAR
( 35)   pad:CHAR
( 36)   seglist:LONG
(----) ENDOBJECT      /* SIZEOF=40 */

```

```

CONST DECR_COL0=0,
      DECR_COL1=1,
      DECR_POINTER=2,
      DECR_SCROLL=3,
      DECR_NONE=4,
      PP_OPENERR=-1,
      PP_READERR=-2,
      PP_NOMEMORY=-3,
      PP_CRYPTED=-4,
      PP_PASSERR=-5,
      PP_UNKNOWNPP=-6,
      PP_EMPTYFILE=-7,
      SPEEDUP_BUFFLARGE=0,
      SPEEDUP_BUFFMEDIUM=1,
      SPEEDUP_BUFFSMALL=2,
      CRUN_FAST=0,
      CRUN_MEDIOCRE=1,
      CRUN_GOOD=2,
      CRUN_VERYGOOD=3,
      CRUN_BEST=4,
      PP_CRUNCHABORTED=0,
      PP_BUFFEROVERFLOW=-1

```

1.164 realtime.m

```

(----) OBJECT realtimebase
(  0)   lib:lib (or ARRAY OF lib)
( 34)   reserved0[2]:ARRAY OF CHAR
( 36)   time:LONG
( 40)   timefrac:LONG
( 44)   reserved1:INT
( 46)   tickerr:INT
(----) ENDOBJECT      /* SIZEOF=48 */

```

```
(----) OBJECT pmstate
```

```

( 0)    method:LONG
( 4)    oldstate:LONG
(----) ENDOBJECT      /* SIZEOF=8 */

(----) OBJECT pmtime
( 0)    method:LONG
( 4)    time:LONG
(----) ENDOBJECT      /* SIZEOF=8 */

(----) OBJECT player
( 0)    ln:ln (or ARRAY OF ln)
( 14)   reserved0:CHAR
( 15)   reserved1:CHAR
( 16)   hook:PTR TO hook
( 20)   source:PTR TO conductor
( 24)   task:PTR TO tc
( 28)   metrictime:LONG
( 32)   alarmtime:LONG
( 36)   userdata:LONG
( 40)   playerid:INT
( 42)   flags:INT
(----) ENDOBJECT      /* SIZEOF=44 */

(----) OBJECT conductor
( 0)    ln:ln (or ARRAY OF ln)
( 14)   reserved0:INT
( 16)   players:mlh (or ARRAY OF mlh)
( 28)   clocktime:LONG
( 32)   starttime:LONG
( 36)   externaltime:LONG
( 40)   maxexternaltime:LONG
( 44)   metronome:LONG
( 48)   reserved1:INT
( 50)   flags:INT
( 52)   state:CHAR
(----) ENDOBJECT      /* SIZEOF=54 */

CONST CONDUCTB_PRIVATE=3,
      CONDUCTF_PRIVATE=8,
      PLAYERB_ALARMSET=1,
      PLAYERF_ALARMSET=2,
      PLAYER_ERRORCODE=$8000004F,
      PLAYER_ALARMSIGTASK=$80000046,
      PLAYER_ALARMTIME=$8000004C,
      PLAYER_PRIORITY=$80000043,
      PLAYER_USERDATA=$8000004A,
      PM_STATE=1,
      PLAYER_EXTSYNC=$8000004E,
      PLAYERB_EXTSYNC=4,
      PLAYERF_EXTSYNC=16,
      PLAYER_QUIET=$80000049,
      PLAYERB_QUIET=2,
      PLAYERF_QUIET=4,
      PLAYER_BASE=$80000040,
      RTE_PLAYING=$324,
      RTE_NOCONDUCTOR=$322,
      PLAYER_CONDUCTOR=$80000044,

```

```

CONDSTATE_PAUSED=1,
CONDUCTB_EXTERNAL=0,
CONDUCTF_EXTERNAL=1,
RTE_NOTIMER=$323,
PM_POSITION=2,
PM_SHUTTLE=3,
CONDSTATE_SHUTTLE=-2,
REALTIME_TICKERR_MIN=$FFFFFFD3F,
PLAYER_READY=$80000045,
PLAYERB_READY=0,
PLAYERF_READY=1,
PLAYER_ID=$8000004B,
TICK_FREQ=$4B0,
CONDSTATE_STOPPED=0,
PM_TICK=0,
CONDUCTB_GOTTICK=1,
CONDUCTF_GOTTICK=2,
RT_CONDUCTORS=0,
PLAYER_CONDUCTED=$80000047,
PLAYERB_CONDUCTED=3,
PLAYERF_CONDUCTED=8,
CONDSTATE_RUNNING=3,
PLAYER_ALARM=$8000004D,
CONDSTATE_LOCATE=2,
RTE_NOMEMORY=$321,
PLAYER_HOOK=$80000041,
PLAYER_ALARMSIGBIT=$80000048,
CONDSTATE_LOCATE_SET=-3,
CONDUCTB_METROSET=2,
CONDUCTF_METROSET=4,
REALTIME_TICKERR_MAX=$2C1,
PLAYER_NAME=$80000042,
CONDSTATE_METRIC=-1

```

1.165 reqbase.m

```

CONST REQVERSION=2,
PAIRSSIZE=20

(----) OBJECT gadgetblock
(  0)  gadget:substructure
( 44)  border:substructure
( 60)  pairs:substructure
( 80)  text:substructure
(----) ENDOBJECT      /* SIZEOF=100 */

(----) OBJECT stringblock
(  0)  gadget:substructure
( 44)  info:substructure
( 80)  border:substructure
( 96)  pairs:substructure
(----) ENDOBJECT      /* SIZEOF=116 */

(----) OBJECT propblock
(  0)  gadget:substructure

```

```
( 44)    info:substructure
( 66)    image:substructure
(----) ENDOBJECT      /* SIZEOF=86 */

(----) OBJECT sliderblock
(  0)    arrowupplt:substructure
( 44)    imageupplt:substructure
( 64)    arrowdnrt:substructure
(108)    imagednrt:substructure
(128)    prop:substructure
(----) ENDOBJECT      /* SIZEOF=214 */

(----) OBJECT twoimageblock
(  0)    gadget:substructure
( 44)    image1:substructure
( 64)    image2:substructure
(----) ENDOBJECT      /* SIZEOF=84 */

CONST ATTITUDEB=16,
      HORIZSLIDER=0,
      VERTSLIDER=$10000

(----) OBJECT trstructure
(  0)    text:LONG
(  4)    controls:LONG
(  8)    window:LONG
( 12)    middletext:LONG
( 16)    positivetext:LONG
( 20)    negativetext:LONG
( 24)    title:LONG
( 28)    keymask:INT
( 30)    textcolor:INT
( 32)    detailcolor:INT
( 34)    blockcolor:INT
( 36)    versionnumber:INT
( 38)    timeout:INT
( 40)    abortmask:LONG
( 44)    rful:INT
(----) ENDOBJECT      /* SIZEOF=46 */

CONST GLNODEFAULTB=0,
      GLNODEFAULTM=1

(----) OBJECT getlongstruct
(  0)    titlebar:LONG
(  4)    defaultval:LONG
(  8)    minlimit:LONG
( 12)    maxlimit:LONG
( 16)    result:LONG
( 20)    window:LONG
( 24)    versionnumber:INT
( 26)    flags:LONG
( 30)    rfu2:LONG
(----) ENDOBJECT      /* SIZEOF=34 */

(----) OBJECT getstringstruct
(  0)    titlebar:LONG
```

```

(  4)  stringbuffer:LONG
(  8)  window:LONG
( 12)  stringsize:INT
( 14)  visiblesize:INT
( 16)  versionnumber:INT
( 18)  flags:LONG
( 22)  rfu1:LONG
( 26)  rfu2:LONG
( 30)  rfu3:LONG
(----) ENDOBJECT      /* SIZEOF=34 */

(----) OBJECT extendedcolorrequesterstruct
(  0)  defcolor:LONG
(  4)  window:LONG
(  8)  rfu1:LONG
( 12)  rfu2:LONG
( 16)  rfu3:LONG
( 20)  rfu4:LONG
( 24)  rfu5:LONG
(----) ENDOBJECT      /* SIZEOF=28 */

CONST DSIZE=$82,
      FCHARS=30,
      WILDLENGTH=30,
      FRQSHOWINFOB=0,
      FRQEXTSELECTB=1,
      FRQCACHINGB=2,
      FRQGETFONTSB=3,
      FRQINFOGADGETB=4,
      FRQHIDEWILDSB=5,
      FRQABSOLUTEEXYB=6,
      FRQCACHEPURGEB=7,
      FRQNOHALFCACHEB=8,
      FRQNOSORTB=9,
      FRQNODRAGB=10,
      FRQSAVINGB=11,
      FRQLOADINGB=12,
      FRQDIRONLYB=13,
      FRQSHOWINFOM=1,
      FRQEXTSELECTM=2,
      FRQCACHINGM=4,
      FRQGETFONTSM=8,
      FRQINFOGADGETM=16,
      FRQHIDEWILDSM=$20,
      FRQABSOLUTEEXYM=$40,
      FRQCACHEPURGEM=$80,
      FRQNOHALFCACHEM=$100,
      FRQNOSORTM=$200,
      FRQNODRAGM=$400,
      FRQSAVINGM=$800,
      FRQLOADINGM=$1000,
      FRQDIRONLYM=$2000

(----) OBJECT esstructure
(  0)  nextfile:LONG
(  4)  namelength:INT
(  6)  pad:INT

```

```
( 8)    node:LONG
(----) ENDOBJECT      /* SIZEOF=12 */

(----) OBJECT reqfilerequester
( 0)    versionnumber:INT
( 2)    title:LONG
( 6)    dir:LONG
(10)    file:LONG
(14)    pathname:LONG
(18)    window:LONG
(22)    maxextendedselect:INT
(24)    numlines:INT
(26)    numcolumns:INT
(28)    devcolumns:INT
(30)    flags:LONG
(34)    dirnamescolor:INT
(36)    filenamescolor:INT
(38)    devicenamescolor:INT
(40)    fontnamescolor:INT
(42)    fontsizescolor:INT
(44)    detailcolor:INT
(46)    blockcolor:INT
(48)    gadgettextcolor:INT
(50)    textmessagecolor:INT
(52)    stringnamecolor:INT
(54)    stringgadgetcolor:INT
(56)    boxbordercolor:INT
(58)    gadgetboxcolor:INT
(60)    rfu_stuff:substructure
(96)    dirdatestamp:substructure
(108)   windowleftedge:INT
(110)   windowtopedge:INT
(112)   fontysize:INT
(114)   fontstyle:INT
(116)   extendedselect:LONG
(120)   hide:substructure
(152)   show:substructure
(184)   filebufferpos:INT
(186)   filedisppos:INT
(188)   dirbufferpos:INT
(190)   dirdisppos:INT
(192)   hidebufferpos:INT
(194)   hidedisppos:INT
(196)   showbufferpos:INT
(198)   showdisppos:INT
(200)   memory:LONG
(204)   memory2:LONG
(208)   lock:LONG
(212)   privatedirbuffer:substructure
(344)   fileinfoblock:LONG
(348)   numentries:INT
(350)   numhiddenentries:INT
(352)   filestartnumber:INT
(354)   devicestartnumber:INT
(----) ENDOBJECT      /* SIZEOF=356 */

(----) OBJECT reqscrollstruct
```

```

( 0)   topentrynumber:LONG
( 4)   numentries:LONG
( 8)   linespacing:INT
(10)   numlines:LONG
(14)   propgadget:LONG
(18)   redrawall:LONG
(22)   readmore:LONG
(26)   scrollanddraw:LONG
(30)   versionnumber:INT
(32)   rful:LONG
(36)   rfu2:LONG
(----) ENDOBJECT      /* SIZEOF=40 */

(----) OBJECT arrows
( 0)   arrowup:substructure
(20)   arrowdown:substructure
(40)   arrowleft:substructure
(58)   arrowright:substructure
(76)   r:substructure
(96)   g:substructure
(116)  b:substructure
(136)  h:substructure
(156)  s:substructure
(176)  v:substructure
(----) ENDOBJECT      /* SIZEOF=196 */

(----) OBJECT reqlib
( 0)   lib:substructure
(34)   syslib:LONG
(38)   doslib:LONG
(42)   intuilib:LONG
(46)   gfxlib:LONG
(50)   seglist:LONG
(54)   images:LONG
(58)   flags:CHAR
(59)   pad:CHAR
(60)   consoleddev:LONG
(64)   consolehandle:LONG
(68)   rexsysbase:LONG
(----) ENDOBJECT      /* SIZEOF=NONE !!! */

```

1.166 reqtools.m

```

CONST REQTOOLSVERSION=$26,
    RTPREF_FILEREQ=0,
    RTPREF_FONTREQ=1,
    RTPREF_PALETTEREQ=2,
    RTPREF_SCREENMODEREQ=3,
    RTPREF_VOLUMEREQ=4,
    RTPREF_OTHERREQ=5,
    RTPREF_NR_OF_REQ=6

(----) OBJECT reqdefaults
( 0)   size:LONG
( 4)   reqpos:LONG

```

```
( 8) leftoffset:INT
(10) topoffset:INT
(12) minentries:INT
(14) maxentries:INT
(----) ENDOBJECT      /* SIZEOF=16 */

(----) OBJECT reqtoolsprefs
( 0) prefssize:LONG
( 4) prefss semaphore:substructure
(50) flags:LONG
(54) reqdefaults:substructure
(----) ENDOBJECT      /* SIZEOF=150 */

CONST RTPREFS_SIZE=$64,
      RTPREF_DIRSFIRST=1,
      RTPREF_DIRSMIXED=2,
      RTPREF_IMMSORT=4,
      RTPREF_NOSCRTOFRONT=8,
      RTPREF_NOLED=16

(----) OBJECT reqtoolsbase
( 0) lib:substructure
(34) rtflags:CHAR
(35) pad:substructure
(38) seglist:LONG
(42) intuitionbase:LONG
(46) gfxbase:LONG
(50) dosbase:LONG
(54) gadtoolsbase:LONG
(58) utilitybase:LONG
(62) realopen cnt:INT
(64) availfontslck:INT
(66) availfontshdr:LONG
(70) fontsassigntype:LONG
(74) fontsassignlck:LONG
(78) fontsassignlist:LONG
(82) reqtoolsprefs:substructure
(232) prefspad:INT
(----) ENDOBJECT      /* SIZEOF=234 */

CONST RT_FILEREQ=0,
      RT_REQINFO=1,
      RT_FONTREQ=2,
      RT_SCREENMODEREQ=3

(----) OBJECT rtfilerequester
( 0) reqpos:LONG
( 4) leftoffset:INT
( 6) topoffset:INT
( 8) flags:LONG
(12) private1:LONG
(16) dir:LONG
(20) matchpat:LONG
(24) defaultfont:LONG
(28) waitpointer:LONG
(32) lockwindow:LONG
(36) shareidcmp:LONG
```

```
( 40)   intuimsgfunc:LONG
( 44)   reserved1:INT
( 46)   reserved2:INT
( 48)   reserved3:INT
( 50)   reqheight:INT
(----) ENDOBJECT      /* SIZEOF=NONE !!! */

(----) OBJECT rtfilelist
(  0)   next:LONG
(  4)   strlen:LONG
(  8)   name:LONG
(----) ENDOBJECT      /* SIZEOF=12 */

(----) OBJECT rtvolumeentry
(  0)   type:LONG
(  4)   name:LONG
(----) ENDOBJECT      /* SIZEOF=8 */

(----) OBJECT rtfontrequester
(  0)   reqpos:LONG
(  4)   leftoffset:INT
(  6)   topoffset:INT
(  8)   flags:LONG
( 12)   privatel:LONG
( 16)   attr:substructure
( 24)   defaultfont:LONG
( 28)   waitpointer:LONG
( 32)   lockwindow:LONG
( 36)   shareidcmp:LONG
( 40)   intuimsgfunc:LONG
( 44)   reserved1:INT
( 46)   reserved2:INT
( 48)   reserved3:INT
( 50)   reqheight:INT
(----) ENDOBJECT      /* SIZEOF=NONE !!! */

(----) OBJECT rtscreenmoderequester
(  0)   reqpos:LONG
(  4)   leftoffset:INT
(  6)   topoffset:INT
(  8)   flags:LONG
( 12)   privatel:LONG
( 16)   displayid:LONG
( 20)   displaywidth:INT
( 22)   displayheight:INT
( 24)   defaultfont:LONG
( 28)   waitpointer:LONG
( 32)   lockwindow:LONG
( 36)   shareidcmp:LONG
( 40)   intuimsgfunc:LONG
( 44)   reserved1:INT
( 46)   reserved2:INT
( 48)   reserved3:INT
( 50)   reqheight:INT
( 52)   displaydepth:INT
( 54)   overscantype:INT
( 56)   autoscroll:LONG
```

```
(----) ENDOBJECT      /* SIZEOF=NONE !!! */

(----) OBJECT rtreqinfo
(  0)   reqpos:LONG
(  4)   leftoffset:INT
(  6)   topoffset:INT
(  8)   width:LONG
( 12)   reqtitle:LONG
( 16)   flags:LONG
( 20)   defaultfont:LONG
( 24)   waitpointer:LONG
( 28)   lockwindow:LONG
( 32)   shareidcmp:LONG
( 36)   intuimsgfunc:LONG
(----) ENDOBJECT      /* SIZEOF=NONE !!! */

(----) OBJECT rthandlerinfo
(  4)   waitmask:LONG
(  8)   donotwait:LONG
(----) ENDOBJECT      /* SIZEOF=NONE !!! */

CONST CALL_HANDLER=$80000000,
      RT_TAGBASE=$80000000,
      RT_WINDOW=$80000001,
      RT_IDCMPFLAGS=$80000002,
      RT_REQPOS=$80000003,
      RT_LEFTOFFSET=$80000004,
      RT_TOPOFFSET=$80000005,
      RT_PUBSCRNAME=$80000006,
      RT_SCREEN=$80000007,
      RT_REQHANDLER=$80000008,
      RT_DEFAULTFONT=$80000009,
      RT_WAITPOINTER=$8000000A,
      RT_UNDESCORE=$8000000B,
      RT_SHAREIDCMP=$8000000C,
      RT_LOCKWINDOW=$8000000D,
      RT_SCREENTOFRONT=$8000000E,
      RT_TEXTATTR=$8000000F,
      RT_INTUIMSGFUNC=$80000010,
      RT_LOCALE=$80000011,
      RTEZ_REQTITLE=$80000014,
      RTEZ_FLAGS=$80000016,
      RTEZ_DEFAULTRESPONSE=$80000017,
      RTGL_MIN=$8000001E,
      RTGL_MAX=$8000001F,
      RTGL_WIDTH=$80000020,
      RTGL_SHOWDEFAULT=$80000021,
      RTGL_GADFMT=$80000022,
      RTGL_GADFMTARGS=$80000023,
      RTGL_INVISIBLE=$80000024,
      RTGL_BACKFILL=$80000025,
      RTGL_TEXTFMT=$80000026,
      RTGL_TEXTFMTARGS=$80000027,
      RTGL_CENTERTEXT=$80000064,
      RTGL_FLAGS=$80000016,
      RTGS_WIDTH=$80000020,
      RTGS_ALLOWEMPTY=$80000050,
```

```
RTGS_GADFMT=$80000022,  
RTGS_GADFMTARGS=$80000023,  
RTGS_INVISIBLE=$80000024,  
RTGS_BACKFILL=$80000025,  
RTGS_TEXTFMT=$80000026,  
RTGS_TEXTFMTARGS=$80000027,  
RTGS_CENTERTEXT=$80000064,  
RTGS_FLAGS=$80000016,  
RTFI_FLAGS=$80000028,  
RTFI_HEIGHT=$80000029,  
RTFI_OKTEXT=$8000002A,  
RTFI_VOLUMEREQUEST=$8000002B,  
RTFI_FILTERFUNC=$8000002C,  
RTFI_ALLOWEMPTY=$8000002D,  
RTFO_FLAGS=$80000028,  
RTFO_HEIGHT=$80000029,  
RTFO_OKTEXT=$8000002A,  
RTFO_SAMPLEHEIGHT=$8000003C,  
RTFO_MINHEIGHT=$8000003D,  
RTFO_MAXHEIGHT=$8000003E,  
RTFO_FILTERFUNC=$8000002C,  
RTSC_FLAGS=$80000028,  
RTSC_HEIGHT=$80000029,  
RTSC_OKTEXT=$8000002A,  
RTSC_PROPERTYFLAGS=$8000005A,  
RTSC_PROPERTYMASK=$8000005B,  
RTSC_MINWIDTH=$8000005C,  
RTSC_MAXWIDTH=$8000005D,  
RTSC_MINHEIGHT=$8000005E,  
RTSC_MAXHEIGHT=$8000005F,  
RTSC_MINDEPTH=$80000060,  
RTSC_MAXDEPTH=$80000061,  
RTSC_FILTERFUNC=$8000002C,  
RTFI_DIR=$80000032,  
RTFI_MATCHPAT=$80000033,  
RTFI_ADDENTRY=$80000034,  
RTFI_REMOVEENTRY=$80000035,  
RTFO_FONTNAME=$8000003F,  
RTFO_FONTHEIGHT=$80000040,  
RTFO_FONTSTYLE=$80000041,  
RTFO_FONTFLAGS=$80000042,  
RTSC_MODEFROMSCREEN=$80000050,  
RTSC_DISPLAYID=$80000051,  
RTSC_DISPLAYWIDTH=$80000052,  
RTSC_DISPLAYHEIGHT=$80000053,  
RTSC_DISPLAYDEPTH=$80000054,  
RTSC_OVERSCANTYPE=$80000055,  
RTSC_AUTOSCROLL=$80000056,  
RTPA_COLOR=$80000046,  
RTRH_ENDREQUEST=$8000003C,  
REQPOS_POINTER=0,  
REQPOS_CENTERWIN=1,  
REQPOS_CENTERSCR=2,  
REQPOS_TOPLEFTWIN=3,  
REQPOS_TOPLEFTSCR=4,  
REQ_CANCEL=0,  
REQ_OK=1,
```

```

FREQF_NOBUFFER=4,
FREQF_MULTISELECT=1,
FREQF_SAVE=2,
FREQF_NOFILES=8,
FREQF_PATGAD=16,
FREQF_SELECTDIRS=$1000,
FREQF_FIXEDWIDTH=$20,
FREQF_COLORFONTS=$40,
FREQF_CHANGEPALETTE=$80,
FREQF_LEAVEPALETTE=$100,
FREQF_SCALE=$200,
FREQF_STYLE=$400,
SCREQF_SIZEGADS=$2000,
SCREQF_DEPTHGAD=$4000,
SCREQF_NONSTDMODES=$8000,
SCREQF_GUIMODES=$10000,
SCREQF_AUTOSCROLLGAD=$40000,
SCREQF_OVERSCANGAD=$80000,
EZREQF_NORETURNKEY=1,
EZREQF_LAMIGAQUAL=2,
EZREQF_CENTERTEXT=4,
GLREQF_CENTERTEXT=4,
GLREQF_HIGHLIGHTTEXT=8,
GSREQF_CENTERTEXT=4,
GSREQF_HIGHLIGHTTEXT=8,
VREQF_NOASSIGNS=1,
VREQF_NODISKS=2,
VREQF_ALLDISKS=4,
RTFI_HOOK=12,
RTFO_HOOK=12,
REQHOOK_WILDFILE=0,
REQHOOK_WILDFONT=1,
FREQF_DOWILDFUNC=$800

```

1.167 translator.m

```

CONST TR_NOMEM=-2,
      TR_NOTUSED=-1,
      TR_MAKEBAD=-4

```

1.168 other

battclock.m	battmem.m
cia.m	disk.m
ecode.m	misc.m
potgo.m	split.m

1.169 battclock.m

```
/* this module contains 56 bytes of code! */

PROC writeBattClock(time)
PROC readBattClock()
PROC resetBattClock()

DEF battclockbase
```

1.170 battmem.m

```
/* this module contains 92 bytes of code! */

PROC releaseBattSemaphore()
PROC obtainBattSemaphore()
PROC writeBattMem(buffer,offset,length)
PROC readBattMem(buffer,offset,length)

DEF battmembase
```

1.171 cia.m

```
/* this module contains 92 bytes of code! */

PROC ableICR(resource,mask)
PROC setICR(resource,mask)
PROC remICRVector(resource,icRBit,interrupt)
PROC addICRVector(resource,icRBit,interrupt)
```

1.172 disk.m

```
/* this module contains 120 bytes of code! */

PROC giveUnit()
PROC getUnit(unitPointer)
PROC freeUnit(unitNum)
PROC allocUnit(unitNum)
PROC readUnitID(unitNum)
PROC getUnitID(unitNum)

DEF diskbase
```

1.173 ecode.m

```
/* this module contains 1148 bytes of code! */

/* ... and 2 reloc entries */
```

```
PROC eCodeSwapArgs(func)
PROC eCodeIntServer(func)
PROC eCodeASLHook(func)
PROC eCodeCollision(func)
PROC eCodeDispose(mem)
PROC eCodeIntHandler(func)
PROC eCode(func)
PROC eCodeTask(func)
PROC eCodeCxCustom(func)
PROC eCodePreserve(func)
PROC eCodeSoftInt(func)
```

1.174 misc.m

```
/* this module contains 48 bytes of code! */

PROC freeMiscResource(unitNum)
PROC allocMiscResource(unitNum, name)

DEF miscbase
```

1.175 potgo.m

```
/* this module contains 68 bytes of code! */

PROC freePotBits(bits)
PROC allocPotBits(bits)
PROC writePotgo(word, mask)

DEF potgobase
```

1.176 split.m

```
/* this module contains 452 bytes of code! */

/* ... and 3 reloc entries */

PROC argSplit(str=0)
```

1.177 prefs

font.m	icontrol.m
input.m	locale.m
overscan.m	palette.m
pointer.m	prefhdr.m
printergfx.m	printerps.m
printertext.m	screenmode.m

```
serial.m          sound.m
wbpattern.m
```

1.178 font.m

```
(----) OBJECT fontprefs
(  0)   reserved[3]:ARRAY OF LONG
( 12)   reserved2:INT
( 14)   type:INT
( 16)   frontpen:CHAR
( 17)   backpen:CHAR
( 18)   drawmode:CHAR
( 20)   textattr:textattr (or ARRAY OF textattr)
( 28)   name[128]:ARRAY OF CHAR
(----) ENDOBJECT      /* SIZEOF=156 */

CONST FP_SCREENFONT=2,
      FP_SYSFONT=1,
      FP_WBFONT=0,
      ID_FONT=$464F4E54,
      FONTNAMESIZE=$80
```

1.179 icontrol.m

```
(----) OBJECT icontrolprefs
(  0)   reserved[4]:ARRAY OF LONG
( 16)   timeout:INT
( 18)   metadrag:INT
( 20)   flags:LONG
( 24)   wbtToFront:CHAR
( 25)   frontToBack:CHAR
( 26)   reqtrue:CHAR
( 27)   reqfalse:CHAR
(----) ENDOBJECT      /* SIZEOF=28 */

CONST ICF_COERCE_COLORS=1,
      ICB_COERCE_COLORS=0,
      ICF_COERCE_LACE=2,
      ICB_COERCE_LACE=1,
      ID_ICTL=$4943544C,
      ICF_MENUSNAP=8,
      ICB_MENUSNAP=3,
      ICF_STRGAD_FILTER=4,
      ICB_STRGAD_FILTER=2,
      ICF_MODEPROMOTE=16,
      ICB_MODEPROMOTE=4
```

1.180 input.m

```
(----) OBJECT inputprefs
(  0)   keymap[16]:ARRAY OF CHAR
( 16)   pointerticks:INT
( 18)   doubleclick:timeval (or ARRAY OF timeval)
( 26)   keyrptdelay:timeval (or ARRAY OF timeval)
( 34)   keyrptspeed:timeval (or ARRAY OF timeval)
( 42)   mouseaccel:INT
(----) ENDOBJECT      /* SIZEOF=44 */
```

```
CONST ID_INPT=$494E5054
```

1.181 locale.m

```
(----) OBJECT localeprefs
(  0)   reserved[4]:ARRAY OF LONG
( 16)   countryname[32]:ARRAY OF CHAR
( 48)   preferredlanguages[300]:ARRAY OF CHAR
( 348)  gmtoffset:LONG
( 352)   flags:LONG
( 356)   countrydata:countryprefs (or ARRAY OF countryprefs)
(----) ENDOBJECT      /* SIZEOF=862 */
```

```
(----) OBJECT countryprefs
(  0)   reserved[4]:ARRAY OF LONG
( 16)   countrycode:LONG
( 20)   telephonecode:LONG
( 24)   measuringsystem:CHAR
( 25)   datetimeformat[80]:ARRAY OF CHAR
( 105)  dateformat[40]:ARRAY OF CHAR
( 145)  timeformat[40]:ARRAY OF CHAR
( 185)  shortdatetimeformat[80]:ARRAY OF CHAR
( 265)  shortdateformat[40]:ARRAY OF CHAR
( 305)  shorttimeformat[40]:ARRAY OF CHAR
( 345)  decimalpoint[10]:ARRAY OF CHAR
( 355)  groupseparator[10]:ARRAY OF CHAR
( 365)  fracgroupseparator[10]:ARRAY OF CHAR
( 375)  grouping[10]:ARRAY OF CHAR
( 385)  fracgrouping[10]:ARRAY OF CHAR
( 395)  mondecimalpoint[10]:ARRAY OF CHAR
( 405)  mongroupseparator[10]:ARRAY OF CHAR
( 415)  monfracgroupseparator[10]:ARRAY OF CHAR
( 425)  mongrouping[10]:ARRAY OF CHAR
( 435)  monfracgrouping[10]:ARRAY OF CHAR
( 445)  monfracdigits:CHAR
( 446)  monintfracdigits:CHAR
( 447)  moncs[10]:ARRAY OF CHAR
( 457)  monsmallcs[10]:ARRAY OF CHAR
( 467)  monintcs[10]:ARRAY OF CHAR
( 477)  monpositivesign[10]:ARRAY OF CHAR
( 487)  monpositivespacesep:CHAR
( 488)  monpositivesignpos:CHAR
( 489)  monpositivecspos:CHAR
( 490)  monnegativesign[10]:ARRAY OF CHAR
( 500)  monnegativespacesep:CHAR
```



```
( 501) monnegativesignpos:CHAR
( 502) monnegativecspos:CHAR
( 503) calendartype:CHAR
(----) ENDOBJECT      /* SIZEOF=504 */
```

```
CONST ID_LCLE=$4C434C45,
      ID_CTRY=$43545259
```

1.182 overscan.m

```
(----) OBJECT overscanprefs
(  0) reserved:LONG
(  4) magic:LONG
(  8) hstart:INT
( 10) hstop:INT
( 12) vstart:INT
( 14) vstop:INT
( 16) displayid:LONG
( 20) viewpos:tpoint (or ARRAY OF tpoint)
( 24) text:tpoint (or ARRAY OF tpoint)
( 28) standard:rectangle (or ARRAY OF rectangle)
(----) ENDOBJECT      /* SIZEOF=36 */
```

```
CONST OSCAN_MAGIC=$FEDCBA89,
      ID_OSCN=$4F53434E
```

1.183 palette.m

```
(----) OBJECT paletteprefs
(  0) reserved[4]:ARRAY OF LONG
( 16) x4colorpens[32]:ARRAY OF INT
( 80) x8colorpens[32]:ARRAY OF INT
(144) colors:colorspec (or ARRAY OF colorspec)
(----) ENDOBJECT      /* SIZEOF=400 */
```

```
CONST ID_PALT=$50414C54
```

1.184 pointer.m

```
(----) OBJECT rgbtable
(  0) red:CHAR
(  1) green:CHAR
(  2) blue:CHAR
(----) ENDOBJECT      /* SIZEOF=4 */
```

```
(----) OBJECT pointerprefs
(  0) reserved[4]:ARRAY OF LONG
( 16) which:INT
( 18) size:INT
( 20) width:INT
```

```
( 22)    ieight:INT
( 24)    depth:INT
( 26)    ysize:INT
( 28)    x:INT
(----) ENDOBJECT      /* SIZEOF=30 */

CONST WBP_NORMAL=0,
      WBP_BUSY=1,
      ID_PNTR=$504E5452
```

1.185 prefhdr.m

```
(----) OBJECT prefheader
(  0)    version:CHAR
(  1)    type:CHAR
(  2)    flags:LONG
(----) ENDOBJECT      /* SIZEOF=6 */

CONST ID_PREF=$50524546,
      ID_PRHD=$50524844
```

1.186 printergfx.m

```
(----) OBJECT printergfxprefs
(  0)    reserved[4]:ARRAY OF LONG
( 16)    aspect:INT
( 18)    shade:INT
( 20)    image:INT
( 22)    threshold:INT
( 24)    colorcorrect:CHAR
( 25)    dimensions:CHAR
( 26)    dithering:CHAR
( 28)    graphicflags:INT
( 30)    printdensity:CHAR
( 32)    printmaxwidth:INT
( 34)    printmaxheight:INT
( 36)    printxoffset:CHAR
( 37)    printyoffset:CHAR
(----) ENDOBJECT      /* SIZEOF=38 */

CONST PI_NEGATIVE=1,
      PI_POSITIVE=0,
      PD_PIXEL=3,
      PD_ORDERED=0,
      PD_HALFTONE=1,
      PCCF_GREEN=2,
      PCCB_GREEN=1,
      PD_IGNORE=0,
      PD_ABSOLUTE=2,
      PD_BOUNDED=1,
      PGFF_ANTI_ALIAS=4,
      PGFB_ANTI_ALIAS=2,
```

```

PA_VERTICAL=1,
PGFF_CENTER_IMAGE=1,
PGFB_CENTER_IMAGE=0,
PA_HORIZONTAL=0,
PCCF_BLUE=4,
PCCB_BLUE=2,
PS_BW=0,
PS_COLOR=2,
PCCF_RED=1,
PCCB_RED=0,
PS_GREY_SCALE2=3,
PD_MULTIPLY=4,
PD_FLOYD=2,
ID_PGFX=$50474658,
PGFF_INTEGER_SCALING=2,
PGFB_INTEGER_SCALING=1,
PS_GREYSCALE=1

```

1.187 printerps.m

```

(----) OBJECT printerpsprefs
(  0)   reserved[4]:ARRAY OF LONG
( 16)   drivermode:CHAR
( 17)   paperformat:CHAR
( 18)   reserved1[2]:ARRAY OF CHAR
( 20)   copies:LONG
( 24)   paperwidth:LONG
( 28)   paperheight:LONG
( 32)   horizontaldpi:LONG
( 36)   verticaldpi:LONG
( 40)   font:CHAR
( 41)   pitch:CHAR
( 42)   orientation:CHAR
( 43)   tab:CHAR
( 44)   reserved2[8]:ARRAY OF CHAR
( 52)   leftmargin:LONG
( 56)   rightmargin:LONG
( 60)   topmargin:LONG
( 64)   bottommargin:LONG
( 68)   fontpointsize:LONG
( 72)   leading:LONG
( 76)   reserved3[8]:ARRAY OF CHAR
( 84)   leftedge:LONG
( 88)   topedge:LONG
( 92)   width:LONG
( 96)   height:LONG
(100)   image:CHAR
(101)   shading:CHAR
(102)   dithering:CHAR
(103)   reserved4a:CHAR
(104)   reserved4[8]:ARRAY OF CHAR
(112)   aspect:CHAR
(113)   scalingtype:CHAR
(114)   reserved5:CHAR
(115)   centering:CHAR

```

```
( 116)    reserved6[8]:ARRAY OF CHAR
(----) ENDOBJECT      /* SIZEOF=124 */

CONST FONT_COURIER=0,
      CENT_HORIZ=1,
      ASP_HORIZ=0,
      DITH_HORIZ=3,
      ST_ASPECT_ASIS=0,
      TAB_HALF=3,
      FONT_NEWCENT=6,
      IM_NEGATIVE=1,
      IM_POSITIVE=0,
      PITCH_NORMAL=0,
      ID_POST=$50535044,
      PF_USLETTER=0,
      PITCH_EXPANDED=2,
      DITH_DOTTY=1,
      FONT_PALATINO=7,
      PF_CUSTOM=3,
      FONT_TIMES=1,
      TAB_INCH=4,
      FONT_AVANTGARDE=4,
      ST_FITS_TALL=5,
      ST_ASPECT_TALL=2,
      DM_PASSTHROUGH=1,
      DITH_DIAG=4,
      DITH_DEFAULT=0,
      ORIENT_LANDSCAPE=1,
      PITCH_COMPRESSED=1,
      PF_USLEGAL=1,
      PF_A4=2,
      FONT_HELV_NARROW=3,
      TAB_QUART=2,
      SHAD_COLOR=2,
      FONT_ZAPFCHANCERY=8,
      FONT_HELVETICA=2,
      ORIENT_PORTRAIT=0,
      CENT_NONE=0,
      TAB_4=0,
      TAB_8=1,
      CENT_VERT=2,
      ASP_VERT=1,
      DITH_VERT=2,
      FONT_BOOKMAN=5,
      DM_POSTSCRIPT=0,
      SHAD_BW=0,
      ST_FITS_WIDE=4,
      ST_ASPECT_WIDE=1,
      CENT_BOTH=3,
      ST_FITS_BOTH=6,
      ST_ASPECT_BOTH=3,
      SHAD_GREYSCALE=1
```

1.188 printertxt.m

```

(----) OBJECT printerunitprefs
(   0)   reserved[4]:ARRAY OF LONG
(  16)   unitnum:LONG
(  20)   opendevicelflags:LONG
(  24)   devicename[32]:ARRAY OF CHAR
(----) ENDOBJECT      /* SIZEOF=56 */

(----) OBJECT printertxtprefs
(   0)   reserved[4]:ARRAY OF LONG
(  16)   driver[30]:ARRAY OF CHAR
(  46)   port:CHAR
(  48)   papertype:INT
(  50)   papersize:INT
(  52)   paperlength:INT
(  54)   pitch:INT
(  56)   spacing:INT
(  58)   leftmargin:INT
(  60)   rightmargin:INT
(  62)   quality:INT
(----) ENDOBJECT      /* SIZEOF=64 */

CONST PP_FINE=2,
      PQ_LETTER=1,
      PS_US_LETTER=0,
      PT_SINGLE=1,
      ID_PUNT=$50554E54,
      PS_CUSTOM=4,
      PS_W_TRACTOR=3,
      PS_N_TRACTOR=2,
      PQ_DRAFT=0,
      PS_US_LEGAL=1,
      PS_EURO_A0=5,
      PS_EURO_A1=6,
      PS_EURO_A2=7,
      PS_EURO_A3=8,
      PS_EURO_A4=9,
      PP_ELITE=1,
      PS_EURO_A5=10,
      PS_EURO_A6=11,
      PS_EURO_A7=12,
      PS_EURO_A8=13,
      PP_SERIAL=1,
      PP_PARALLEL=0,
      PT_FANFOLD=0,
      PS_EIGHT_LPI=1,
      PS_SIX_LPI=0,
      PP_PICA=0,
      DEVICENAMESIZE=$20,
      DRIVERNAMESIZE=30,
      ID_PTXT=$50545854

```

1.189 screenmode.m

```

(----) OBJECT screenmodeprefs

```

```
( 0) reserved[4]:ARRAY OF LONG
( 16) displayid:LONG
( 20) width:INT
( 22) height:INT
( 24) depth:INT
( 26) control:INT
(----) ENDOBJECT      /* SIZEOF=28 */

CONST ID_SCRM=$5343524D,
      SMF_AUTOSCROLL=1,
      SMB_AUTOSCROLL=0
```

1.190 serial.m

```
(----) OBJECT serialprefs
( 0) reserved[3]:ARRAY OF LONG
( 12) unit0map:LONG
( 16) baudrate:LONG
( 20) inputbuffer:LONG
( 24) outputbuffer:LONG
( 28) inpuhandshake:CHAR
( 29) outpuhandshake:CHAR
( 30) parity:CHAR
( 31) bitsperchar:CHAR
( 32) stopbits:CHAR
(----) ENDOBJECT      /* SIZEOF=34 */

CONST PARITY_EVEN=1,
      PARITY_MARK=3,
      PARITY_SPACE=4,
      HSHAKE_XON=0,
      PARITY_ODD=2,
      ID_SERL=$5345524C,
      HSHAKE_NONE=2,
      PARITY_NONE=0,
      HSHAKE_RTS=1
```

1.191 sound.m

```
(----) OBJECT soundprefs
( 0) reserved[4]:ARRAY OF LONG
( 16) displayqueue:INT
( 18) audioqueue:INT
( 20) audiotype:INT
( 22) audiovolume:INT
( 24) audioperiod:INT
( 26) audioduration:INT
( 28) audiofilename[256]:ARRAY OF CHAR
(----) ENDOBJECT      /* SIZEOF=284 */

CONST SPTYPE_BEEP=0,
      ID_SOND=$534F4E44,
```

```
SPTYPE_SAMPLE=1
```

1.192 wbpattern.m

```
(----) OBJECT wbpatternprefs
(  0)   reserved[4]:ARRAY OF LONG
( 16)   which:INT
( 18)   flags:INT
( 20)   revision:CHAR
( 21)   depth:CHAR
( 22)   datalength:INT
(----) ENDOBJECT      /* SIZEOF=24 */

CONST WBP_SCREEN=2,
      WBPF_NOREMAP=16,
      WBP_ROOT=0,
      ID_PTRN=$5054524E,
      WBP_DRAWER=1,
      PAT_HEIGHT=16,
      DEFPATDEPTH=2,
      MAXDEPTH=3,
      PAT_WIDTH=16,
      WBPF_PATTERN=1
```

1.193 resources

battclock.m	battmem.m
battmembitsamiga.m	battmembitsshared.m
card.m	cia.m
disk.m	filesysres.m
mathresource.m	misc.m
potgo.m	

1.194 battclock.m

```
#define BATTCLOCKNAME/0
```

1.195 battmem.m

```
#define BATTMEMNAME/0
```

1.196 battmembitsamiga.m

```

CONST BATTMEM_SCSI_LUNS_ADDR=2,
      BATTMEM_SCSI_TIMEOUT_ADDR=1,
      BATTMEM_AMIGA_AMNESIA_ADDR=0,
      BATTMEM_SCSI_LUNS_LEN=1,
      BATTMEM_SCSI_TIMEOUT_LEN=1,
      BATTMEM_AMIGA_AMNESIA_LEN=1

```

1.197 battmembitssshared.m

```

CONST BATTMEM_SCSI_TAG_QUEUES_ADDR=$46,
      BATTMEM_SCSI_FAST_SYNC_ADDR=$45,
      BATTMEM_SCSI_SYNC_XFER_ADDR=$44,
      BATTMEM_SCSI_HOST_ID_ADDR=$41,
      BATTMEM_SHARED_AMNESIA_ADDR=$40,
      BATTMEM_SCSI_TAG_QUEUES_LEN=1,
      BATTMEM_SCSI_FAST_SYNC_LEN=1,
      BATTMEM_SCSI_SYNC_XFER_LEN=1,
      BATTMEM_SCSI_HOST_ID_LEN=3,
      BATTMEM_SHARED_AMNESIA_LEN=1

```

1.198 card.m

```

(----) OBJECT amigaxip
(  0)   code:CHAR
(  1)   link:CHAR
(  2)   xiploc[4]:ARRAY OF CHAR
(  6)   xipflags:CHAR
(  7)   xipresrv:CHAR
(----) ENDOBJECT      /* SIZEOF=8 */

(----) OBJECT cardmemorymap
(  0)   commonmemory:PTR TO CHAR
(  4)   attributememory:PTR TO CHAR
(  8)   iomemory:PTR TO CHAR
( 12)   commonmemsize:LONG
( 16)   attributememsize:LONG
( 20)   iomemsize:LONG
(----) ENDOBJECT      /* SIZEOF=24 */

(----) OBJECT devicetdata
(  0)   dtsize:LONG
(  4)   dtspeed:LONG
(  8)   dttype:CHAR
(  9)   dtflags:CHAR
(----) ENDOBJECT      /* SIZEOF=10 */

(----) OBJECT cardhandle
(  0)   cardnode:ln (or ARRAY OF ln)
( 14)   cardremoved:PTR TO is
( 18)   cardinserted:PTR TO is
( 22)   cardstatus:PTR TO is

```

```
( 26)    cardflags:CHAR
(----) ENDOBJECT      /* SIZEOF=28 */

CONST CARDF_RESETPREMOVE=1,
      CARDB_RESETPREMOVE=0,
      CISTPL_AMIGAXIP=$91,
      CARD_INTB_DA=4,
      CARD_STATUSB_DA=4,
      CARDF_POSTSTATUS=8,
      CARDB_POSTSTATUS=3,
      CARD_VOLTAGE_12V=2,
      CARD_INTB_SC=5,
      CARD_STATUSB_SC=5,
      CARD_DISABLEF_WP=8,
      CARD_STATUSF_WR=8,
      CARD_VOLTAGE_5V=1,
      CARDF_IFAVAILABLE=2,
      CARDB_IFAVAILABLE=1,
      CARD_STATUSF_CCDET=$40,
      CARD_STATUSB_CCDET=6,
      CARD_INTF_BSY=4,
      CARD_INTB_BSY=2,
      CARD_STATUSF_BSY=4,
      CARD_STATUSB_BSY=2,
      CARD_ENABLEF_DIGAUDIO=2,
      CARD_ENABLEB_DIGAUDIO=1,
      CARDF_DELAYOWNERSHIP=4,
      CARDB_DELAYOWNERSHIP=2,
      CARD_INTF_BVD1=$20,
      CARD_INTB_BVD1=5,
      CARD_STATUSF_BVD1=$20,
      CARD_STATUSB_BVD1=5,
      CARDF_REMOVEHANDLE=1,
      CARDB_REMOVEHANDLE=0,
      CARD_INTF_BVD2=16,
      CARD_INTB_BVD2=4,
      CARD_STATUSF_BVD2=16,
      CARD_STATUSB_BVD2=4,
      CARD_DISABLEB_WP=3,
      CARD_STATUSB_WR=3,
      CARD_INTF_IRQ=4,
      CARD_INTB_IRQ=2,
      CARD_STATUSF_IRQ=4,
      CARD_STATUSB_IRQ=2,
      CARD_INTF_DA=16,
      CARD_STATUSF_DA=16,
      CARD_INTF_SETCLR=$80,
      CARD_INTB_SETCLR=7,
      XIPFLAGF_AUTORUN=1,
      XIPFLAGB_AUTORUN=0,
      CARD_INTF_SC=$20,
      CARD_STATUSF_SC=$20,
      CARD_VOLTAGE_0V=0,
      CARD_INTERFACE_AMIGA_0=0

#define CARDRESNAME/0
```

1.199 cia.m

```
#define CIABNAME/0
#define CIAANAME/0
```

1.200 disk.m

```
(----) OBJECT discresource
(  0)  lib:lib (or ARRAY OF lib)
( 34)  current:PTR TO discresourceunit
( 38)  flags:CHAR
( 39)  pad:CHAR
( 40)  syslib:PTR TO lib
( 44)  ciaresource:PTR TO lib
( 48)  unitid[4]:ARRAY OF LONG
( 64)  waiting:lh (or ARRAY OF lh)
( 78)  discblock:is (or ARRAY OF is)
(100)  discsync:is (or ARRAY OF is)
(122)  index:is (or ARRAY OF is)
(144)  currtask:PTR TO tc
(----) ENDOBJECT      /* SIZEOF=148 */

(----) OBJECT discresourceunit
(  0)  mn:mn (or ARRAY OF mn)
( 20)  discblock:is (or ARRAY OF is)
( 42)  discsync:is (or ARRAY OF is)
( 64)  index:is (or ARRAY OF is)
(----) ENDOBJECT      /* SIZEOF=86 */

CONST DRT_AMIGA=0,
      DRF_ACTIVE=$80,
      DRB_ACTIVE=7,
      DRF_ALLOC0=1,
      DRB_ALLOC0=0,
      DRF_ALLOC1=2,
      DRB_ALLOC1=1,
      DRF_ALLOC2=4,
      DRB_ALLOC2=2,
      DRF_ALLOC3=8,
      DRB_ALLOC3=3,
      DR_GIVEUNIT=-24,
      DR_GETUNIT=-18,
      DR_FREEUNIT=-12,
      DR_ALLOCUNIT=-6,
      DR_READUNITID=$FFFFFFDC,
      DR_GETUNITID=-30,
      DSKDMAOFF=$4000,
      DRT_37422D2S=$55555555,
      DRT_EMPTY=-1,
      DR_LASTCOMM=$FFFFFFDC,
      DRT_150RPM=$AAAAAAAA
```

```
#define DISKNAME/0
```

1.201 filesysres.m

```
(----) OBJECT filesysentry
(  0)   ln:ln (or ARRAY OF ln)
( 14)   dostype:LONG
( 18)   version:LONG
( 22)   patchflags:LONG
( 26)   type:LONG
( 30)   task:PTR TO tc
( 34)   lock:LONG
( 38)   handler:PTR TO CHAR
( 42)   stacksize:LONG
( 46)   priority:LONG
( 50)   startup:LONG
( 54)   seglist:LONG
( 58)   globalvec:LONG
(----) ENDOBJECT      /* SIZEOF=62 */

(----) OBJECT filesysresource
(  0)   ln:ln (or ARRAY OF ln)
( 14)   creator:PTR TO CHAR
( 18)   filesysentries:lh (or ARRAY OF lh)
(----) ENDOBJECT      /* SIZEOF=32 */

#define FSRNAME/0
```

1.202 mathresource.m

```
(----) OBJECT mathieeerresource
(  0)   node:ln (or ARRAY OF ln)
( 14)   flags:INT
( 16)   baseaddr:PTR TO INT
( 20)   dblbasinit:LONG
( 24)   dbltransinit:LONG
( 28)   sglbasinit:LONG
( 32)   sgltransinit:LONG
( 36)   extbasinit:LONG
( 40)   exttransinit:LONG
(----) ENDOBJECT      /* SIZEOF=44 */

CONST MATHIEEERESOURCEF_EXTBAS=16,
      MATHIEEERESOURCEF_SGLBAS=4,
      MATHIEEERESOURCEF_DBLBAS=1,
      MATHIEEERESOURCEF_EXTTRANS=$20,
      MATHIEEERESOURCEF_SGLTRANS=8,
      MATHIEEERESOURCEF_DBLTRANS=2
```

1.203 misc.m

```
CONST MR_PARALLELPOR=2,
      MR_SERIALPOR=0,
      MR_PARALLELBITS=3,
```

```
MR_SERIALBITS=1,  
MR_FREEMISCRESOURCE=-12,  
MR_ALLOCMISCRESOURCE=-6
```

```
#define MISCNAME/0
```

1.204 potgo.m

```
CONST RESOURCES_POTGO_I=1
```

```
#define POTGONAME/0
```

1.205 rexx

```
errors.m      rexxio.m  
rxslib.m      storage.m
```

1.206 errors.m

```
CONST ERR10_041=$29,  
ERR10_042=$2A,  
ERR10_043=$2B,  
ERR10_044=$2C,  
ERR10_045=$2D,  
ERR10_046=$2E,  
ERR10_047=$2F,  
ERR10_048=$30,  
RC_OK=0,  
ERRC_MSG=0,  
RC_FAIL=-1,  
RC_WARN=5,  
RC_ERROR=10,  
RC_FATAL=20,  
ERR10_001=1,  
ERR10_002=2,  
ERR10_003=3,  
ERR10_005=5,  
ERR10_006=6,  
ERR10_008=8,  
ERR10_009=9,  
ERR10_010=10,  
ERR10_011=11,  
ERR10_012=12,  
ERR10_013=13,  
ERR10_014=14,  
ERR10_015=15,  
ERR10_016=16,  
ERR10_017=17,  
ERR10_018=18,  
ERR10_019=19,
```

```

ERR10_020=20,
ERR10_021=21,
ERR10_022=22,
ERR10_023=23,
ERR10_024=24,
ERR10_025=25,
ERR10_026=26,
ERR10_027=27,
ERR10_028=28,
ERR10_029=29,
ERR10_030=30,
ERR10_031=31,
ERR10_032=$20,
ERR10_033=$21,
ERR10_034=$22,
ERR10_035=$23,
ERR10_036=$24,
ERR10_037=$25,
ERR10_039=$27,
ERR10_040=$28

```

1.207 rexxio.m

```

(----) OBJECT rexxmsgport
(  0)   rrsiz eof:rexxrsrc (or ARRAY OF rexxrsrc)
( 32)   port:mp (or ARRAY OF mp)
( 66)   replylist:lh (or ARRAY OF lh)
(----) ENDOBJECT      /* SIZEOF=80 */

```

```

(----) OBJECT iobuff
(  0)   node:rexxrsrc (or ARRAY OF rexxrsrc)
( 32)   rpt:LONG
( 36)   rct:LONG
( 40)   dfh:LONG
( 44)   lock:LONG
( 48)   bct:LONG
( 52)   area[204]:ARRAY OF CHAR
(----) ENDOBJECT      /* SIZEOF=256 */

```

```

CONST DT_DIR=1,
      IOBPOS=28,
      DT_VOL=2,
      RXIO_WRITE=2,
      RXIO_BEGIN=-1,
      RXBUFFSZ=$CC,
      RXIO_END=1,
      ACTION_QUEUE=$7D3,
      RXIO_EXIST=-1,
      IOEOF=25,
      IOBMODE=24,
      RXIO_STRF=0,
      DT_DEV=0,
      RXIO_APPEND=3,
      RXIO_READ=1,
      ACTION_STACK=$7D2,

```

```

        RXIO_CURR=0,
        IOBNAME=10

#define LLVERS/1
#define LLOFFSET/1
#define CLVALUE/1

```

1.208 rxslib.m

```

(----) OBJECT rxslib
(  0)  lib:lib (or ARRAY OF lib)
( 34)  flags:CHAR
( 35)  shadow:CHAR
( 36)  sysbase:LONG
( 40)  dosbase:LONG
( 44)  ieeeedpbase:LONG
( 48)  seglist:LONG
( 52)  nil:LONG
( 56)  chunk:LONG
( 60)  maxnest:LONG
( 64)  null:PTR TO nexxstr
( 68)  false:PTR TO nexxstr
( 72)  true:PTR TO nexxstr
( 76)  rexx:PTR TO nexxstr
( 80)  command:PTR TO nexxstr
( 84)  stdin:PTR TO nexxstr
( 88)  stdout:PTR TO nexxstr
( 92)  stderr:PTR TO nexxstr
( 96)  version:PTR TO CHAR
(100)  taskname:PTR TO CHAR
(104)  taskpri:LONG
(108)  taskseg:LONG
(112)  stacksize:LONG
(116)  rexxdir:PTR TO CHAR
(120)  ctable:PTR TO CHAR
(124)  notice:PTR TO CHAR
(128)  rexxport:mp (or ARRAY OF mp)
(162)  readlock:INT
(164)  tracefh:LONG
(168)  tasklist:lh (or ARRAY OF lh)
(182)  numtask:INT
(184)  liblist:lh (or ARRAY OF lh)
(198)  numlib:INT
(200)  cliplist:lh (or ARRAY OF lh)
(214)  numclip:INT
(216)  msglist:lh (or ARRAY OF lh)
(230)  nummsg:INT
(232)  pgmlist:lh (or ARRAY OF lh)
(246)  numpgm:INT
(248)  tracecnt:INT
(250)  avail:INT
(----) ENDOBJECT      /* SIZEOF=252 */

CONST RLFB_SUSP=2,
      RLFB_TRACE=0,

```

```

RLFB_HALT=1,
CTF_REXXSYM=8,
CTB_REXXSYM=3,
CTF_ALPHA=4,
CTB_ALPHA=2,
CTF_REXXOPR=16,
CTB_REXXOPR=4,
CTF_SPACE=1,
CTB_SPACE=0,
RXSTPRI=0,
RLFMASK=7,
RLFB_STOP=6,
CTF_REXXSPC=$20,
CTB_REXXSPC=5,
RLFB_CLOSE=7,
RXSCHUNK=$400,
RXSNEST=$20,
CTF_UPPER=$40,
CTB_UPPER=6,
CTF_LOWER=$80,
CTB_LOWER=7,
CTF_DIGIT=2,
CTB_DIGIT=1,
RXSSTACK=$1000

```

```

#define RXSDIR/0
#define RXSTNAME/0
#define RXSNAME/0

```

1.209 storage.m

```

(----) OBJECT srcnode
(  0)  succ:PTR TO srcnode
(  4)  pred:PTR TO srcnode
(  8)  ptr:LONG
( 12)  size:LONG
(----) ENDOBJECT      /* SIZEOF=16 */

(----) OBJECT rexxtask
(  0)  global[200]:ARRAY OF CHAR
( 200)  msgport:mp (or ARRAY OF mp)
( 234)  flags:CHAR
( 235)  sigbit:CHAR
( 236)  clientid:LONG
( 240)  msgpkt:LONG
( 244)  taskid:LONG
( 248)  port:LONG
( 252)  errtrap:LONG
( 256)  stackptr:LONG
( 260)  header1:lh (or ARRAY OF lh)
( 274)  header2:lh (or ARRAY OF lh)
( 288)  header3:lh (or ARRAY OF lh)
( 302)  header4:lh (or ARRAY OF lh)
( 316)  header5:lh (or ARRAY OF lh)
(----) ENDOBJECT      /* SIZEOF=330 */

```

```

(----) OBJECT rexxsrc
(  0)   ln:ln (or ARRAY OF ln)
( 14)   func:INT
( 16)   base:LONG
( 20)   size:LONG
( 24)   arg1:PTR TO CHAR
( 28)   arg2:LONG
(----) ENDOBJECT      /* SIZEOF=32 */

(----) OBJECT rexxmsg
(  0)   mn:mn (or ARRAY OF mn)
( 20)   taskblock:LONG
( 24)   libbase:LONG
( 28)   action:LONG
( 32)   result1:LONG
( 36)   result2:LONG
( 40)   args[16]:ARRAY OF LONG
(104)   passport:PTR TO mp
(108)   commaddr:PTR TO CHAR
(112)   fileext:PTR TO CHAR
(116)   stdin:LONG
(120)   stdout:LONG
(124)   avail:LONG
(----) ENDOBJECT      /* SIZEOF=128 */

(----) OBJECT rexxarg
(  0)   size:LONG
(  4)   length:INT
(  6)   flags:CHAR
(  7)   hash:CHAR
(  8)   buff[8]:ARRAY OF CHAR
(----) ENDOBJECT      /* SIZEOF=16 */

(----) OBJECT nexsstr
(  0)   ivalue:LONG
(  4)   length:INT
(  6)   flags:CHAR
(  7)   hash:CHAR
(  8)   buff[8]:ARRAY OF CHAR
(----) ENDOBJECT      /* SIZEOF=16 */

CONST MEMQUANT=16,
      RRTYPE=8,
      KEEPNUM=$9A,
      NSF_DPNUM=$28,
      RTFB_SUSP=2,
      NXADDLEN=9,
      RRT_PORT=2,
      MEMQUICK=1,
      RXADDCON=$A000000,
      RTFB_TRACE=0,
      RTFB_HALT=1,
      RXTCOPN=$C000000,
      NSF_FLOAT=$20,
      NSB_FLOAT=5,
      NUMLISTS=5,

```

```
MAXRMARG=15,
NSF_ALPHA=6,
RXFF_TOKEN=$80000,
RXFB_TOKEN=19,
RXREMCON=$B000000,
RRT_LIB=1,
MEMMASK=-16,
RXARGMASK=15,
RXCODEMASK=$FF000000,
RXFF_NONRET=$100000,
RXFB_NONRET=20,
RXADDLIB=$8000000,
RXFF_RESULT=$20000,
RXFB_RESULT=17,
ACTION=28,
NSF_EXT=$40,
NSB_EXT=6,
MEMCLEAR=$10000,
RTFB_CLOSE=7,
RXREMLIB=$9000000,
RXCLOSE=$3000000,
RXQUERY=$4000000,
RRT_HOST=4,
RXFF_STRING=$40000,
RXFB_STRING=18,
NSF_STRING=2,
NSB_STRING=1,
RESULT1=$20,
KEEPSTR=$86,
NSF_NUMBER=8,
NSB_NUMBER=3,
RESULT2=$24,
RXTCCLS=$D000000,
RXFB_NOIO=16,
RRT_ANY=0,
PORTLIST=$13C,
FILELIST=$12E,
MEMLIST=$120,
FREELIST=$112,
ENVLIST=$104,
RXFUNC=$2000000,
RXCOMM=$1000000,
NSF_OWNED=$C1,
NSF_BINARY=16,
NSB_BINARY=4,
RTFB_WAIT=6,
NSF_INTNUM=26,
NSF_NOTNUM=4,
NSB_NOTNUM=2,
RXADDFH=$7000000,
NSF_KEEP=1,
NSB_KEEP=0,
RRT_FILE=3,
GLOBALSZ=$C8,
RRT_CLIP=5,
RRSIZE=20,
NSF_SOURCE=$80,
```

```

        NSB_SOURCE=7,
        RTFB_TCUSE=3,
        RRNAME=10

#define ARG0/1
#define ARG1/1
#define ARG2/1
#define IVALUE/1

```

1.210 support

2darray.m	blockinput.m
confuncs.m	datetime.m
elocale.m	msgport.m
rexxc.m	rexxcsupport.m

1.211 2darray.m

```

/* this module contains 1084 bytes of code! */

/* ... and 5 reloc entries */

/* 3 private global variable(s) in this module */

(----) OBJECT dd_array
(  4)   sizeX:LONG
(  8)   sizeY:LONG
        create(a,b,c)
        checkBounds(a,b)
        offset(a,b)
        set(a,b,c)
        get(a,b)
        size()
        type()
        end()
(----) ENDOBJECT      /* SIZEOF=20 */

CONST LONGS=4,
      INTS=2,
      CHARS=1

```

1.212 blockinput.m

```

/* this module contains 404 bytes of code! */

/* ... and 2 reloc entries */

PROC endWait(win,waitRequest,win_title=0)
PROC beginWait(win,waitRequest,win_title=0)

```

1.213 confuncs.m

```
/* this module contains 352 bytes of code! */

PROC mile2ft(mile)
PROC f2c(fg)
PROC k2c(kg)
PROC kg2pound(kg)
PROC inch2ft(inch)
PROC c2f(cg)
PROC c2k(cg)
PROC ft2mile(ft)
PROC pound2kg(pound)
PROC ft2inch(ft)
PROC cm2inch(cm)
PROC inch2cm(inch)
```

1.214 datetime.m

```
/* this module contains 416 bytes of code! */

/* ... and 3 reloc entries */

(----) OBJECT date_time
        date_time()
        date()
        day()
        time()
        end()
(----) ENDOBJECT      /* SIZEOF=154 */
```

1.215 elocale.m

```
/* this module contains 480 bytes of code! */

/* ... and 4 reloc entries */

DEF localebase

(----) OBJECT eLocale
(   4)   strings:LONG
(   8)   catalog:LONG
        init(a,b,c)
        end()
        getstring(a)
(----) ENDOBJECT      /* SIZEOF=12 */
```

1.216 msgport.m

```

/* this module contains 1064 bytes of code! */

/* ... and 6 reloc entries */

DEF rexxsysbase

(----) OBJECT msgport
( 4)  msgport:PTR TO mp
      create(a,b)
      delete()
      end()
      reply(a,b,c)
      sigbit()
      sigbitA()
      getmsg()
      wait()
      putmsg(a,b)
      putrx(a,b,c,d)
(----) ENDOBJECT      /* SIZEOF=8 */

CONST CMD=0,
      FUNC=1

/*
  code from module "emodules:amigalib/ports.m" used:
  createPort()/2 (1x)
  deletePort()/1 (1x)
*/
/* This module contains 328 bytes LINE DEBUG infos! */

/* This module contains 260 bytes EVAR DEBUG infos! */

#define _MSGPORTVERSION_/0

```

1.217 rexxc.m

```

/* this module contains 9172 bytes of code! */

/* ... and 43 reloc entries */

DEF rexxsysbase

(----) OBJECT rexxC
      rexxC(a,b,c,d,e,f,g,h,i,j)
      end()
      commandList(a)
      checkCBList(a)
      break()
      loopReceive()
      waitReceive()
      get()
      isLastTokenized()
      getArgStr()
      version()

```

```

    passPort (a)
    defaultIn (a)
    defaultOut (a)
    breakMask (a,b)
    brutal (a)
    fileExtension (a)
    command (a,b)
    commandFile (a)
    commandString (a)
    commandQuick (a,b)
    commandFileQuick (a)
    commandStringQuick (a)
    commandToken (a,b)
    commandFileToken (a)
    commandQuickToken (a,b)
    commandStringQuickToken (a)
    addServer (a,b)
    addServerQuick (a,b)
    addLibrary (a,b,c,d)
    addLibraryQuick (a,b,c,d)
    removeLibrary (a)
    removeLibraryQuick (a)
    addClip (a,b)
    addClipQuick (a,b)
    removeClip (a)
    removeClipQuick (a)
    functionString (a)
    functionStringQuick (a)
    openGlobalConsole ()
    openGlobalConsoleQuick ()
    closeGlobalConsole ()
    closeGlobalConsoleQuick ()
    function (a,b)
    functionQuick (a,b)
    fix_port_name ()
    handle_incoming ()
    reply_message (a,b,c)
    free_message_all (a)
    command_executor (a)
    find_command (a,b)
    create_port (a,b)
    swallowReplies ()
    swallowRepliesQuick ()
    handle_reply ()
    do_send_command (a,b,c)
    do_send_command_quick (a,b,c)
    do_send_misc (a,b,c,d,e)
    do_send_function (a,b,c)
    do_function_string (a,b)
    we_want_reply (a)
(----) ENDOBJECT      /* SIZEOF=72 */

CONST SE_SENDING_PORT=2,
      SE_RECEIVING_PORT=1,
      DCC_GOT_NO_REPLY=1,
      SE_BRUTAL=4,
      SE_LIST_SORTED=8,

```

```
DCC_NO_ERROR=0,  
DCC_ABORTED_SWALLOWING=4,  
EXI_BAD_CALLBACKS=0,  
DCC_HOST_NOT_FOUND=2,  
EXI_PORT_NOT_UNIQUE=1,  
DCC_MSG_NOT_CREATED=3,  
DCC_NO_FILE=5
```

1.218 rexxcsupport.m

```
/* this module contains 136 bytes of code! */  
  
/* ... and 4 reloc entries */  
  
PROC charToStr(char)  
PROC longToStr(long)
```

1.219 tools

arexx.m	async.m
Boopsi.m	clonescreen.m
constructors.m	cookrawkey.m
ctype.m	easygui.m
exceptions.m	file.m
filledvdefs.m	filledvector.m
ilbm.m	ilbmdefs.m
installhook.m	lisp.m
longreal.m	longrealtiny.m
macros.m	pt.m
scrbuffer.m	simplelex.m
trapguru.m	Vector.m

1.220 arexx.m

```
/* this module contains 852 bytes of code! */  
  
/* ... and 9 reloc entries */  
  
PROC rx_HandleAll(interpret_proc,portname)  
PROC rx_ClosePort(port)  
PROC rx_OpenPort(portname)  
PROC rx_GetMsg(port)  
PROC rx_ReplyMsg(mes,rc=0,resultstring=0)  
  
/* 1 private global variable(s) in this module */
```

1.221 **async.m**

```
/* this module contains 868 bytes of code! */

PROC as_NextBuffer(a)
PROC as_Open(a,b,c,d)
PROC as_FGetS(a,b,c)
PROC as_Read(a,b,c)
PROC as_FGetC(a)
PROC as_Close(a)
```

1.222 **Boopsi.m**

```
/* this module contains 92 bytes of code! */

PROC domethod(obj,msg)
```

1.223 **clonescreen.m**

```
/* osvers: 37+ */

/* this module contains 1104 bytes of code! */

/* ... and 7 reloc entries */

PROC getcloneinfo(screen)
PROC backdropwindow(screen,idcmp=0,flags=0)
PROC closeclonescreen(screen,font>window=0)
PROC openclonescreen(pub_screen_name,clone_title,depth=0,clone_pub_name=0)
```

1.224 **constructors.m**

```
/* this module contains 176 bytes of code! */

/* ... and 2 reloc entries */

PROC newnode(ln=0,name=0,type=0,pri=0)
PROC newlist(lh=0,type=0)
```

1.225 **cookrawkey.m**

```
/* this module contains 592 bytes of code! */

/* ... and 3 reloc entries */

PROC shutdownRawkeyCooker()
PROC warmupRawkeyCooker()
```

```
PROC cookRawkey(idcmpCode,idcmpQualifier,iAddress)

DEF consoledevice
/* 2 private global variable(s) in this module */

CONST ER_ASKKEYMAP=$4B4D4150,
      ER_CREATEPORT=$504F5254,
      ER_CREATEIO=$494F,
      ER_OPENDEVICE=$444556,
      ER_NONE=0
```

1.226 ctype.m

```
/* this module contains 360 bytes of code! */

PROC isspace(a)
PROC isupper(a)
PROC islower(a)
PROC isalpha(a)
PROC isalnum(a)
PROC isxdigit(a)
PROC isdigit(a)
PROC iscntrl(a)
PROC isgraph(a)
PROC ispunct(a)
PROC isprint(a)
PROC toupper(a)
PROC tolower(a)
```

1.227 easygui.m

```
/* osvers: 37+ */

/* this module contains 11068 bytes of code! */

/* ... and 46 reloc entries */

PROC easygui(windowtitle,gui,info=0,screen=0,textattr=0,newmenus=0)
PROC guiinit(windowtitle,gui,info=0,screen=0,textattr=0,newmenus=0)
PROC setscrollvisible(gh,gad,visible)
PROC setlistvselected(gh,gad,active)
PROC setscrolltotal(gh,gad,total)
PROC guimessage(guihandle)
PROC setinteger(gh,gad,new)
PROC setcycle(gh,gad,active)
PROC disposegui(gui,x=0)
PROC setmx(gh,gad,active)
PROC setstr(gh,gad,new)
PROC cleangui(guihandle)
PROC setslide(gh,gad,new)
PROC setscrolltop(gh,gad,top)
PROC findgadget(gh,list)
```

```
PROC setcheck(gh,gad,bool)
PROC setlistvlabels(gh,gad,labs)

/* 1 private global variable(s) in this module */

(----) OBJECT guihandle
(  0)   wnd:PTR TO window
(  4)   sig:LONG
(----) ENDOBJECT      /* SIZEOF=68 */

CONST RENDERFIXED=19,
      NUM=17,
      MX=10,
      BEVELR=5,
      SCROLL=13,
      LISTV=9,
      MAXGUI=27,
      EQROWS=1,
      ROWS=0,
      SPACE=25,
      SPACEH=24,
      RENDER=18,
      IMAGE=22,
      SPACEV=26,
      BAR=23,
      SLIDE=14,
      TEXT=16,
      CHECK=7,
      STR=15,
      EQCOLS=3,
      COLS=2,
      PALETTE=12,
      IBUTTON=21,
      SBUTTON=20,
      BUTTON=6,
      INTEGER=8,
      CYCLE=11,
      BEVEL=4
```

1.228 exceptions.m

```
/* this module contains 468 bytes of code! */

/* ... and 7 reloc entries */

PROC report_exception()
```

1.229 file.m

```
/* this module contains 636 bytes of code! */

/* ... and 11 reloc entries */
```

```

PROC countstrings(mem,len)
PROC stringsinfile(mem,len,max)
PROC writefile(filename,mem,len)
PROC freefile(mem)
PROC readfile(filename, trailbyte=10, memflags=0)

```

1.230 filledvdefs.m

```

(----) OBJECT matrix
(  0)  matdata[10]:ARRAY OF INT
(----) ENDOBJECT      /* SIZEOF=20 */

(----) OBJECT face
(  0)  cross0:INT
(  2)  cross1:INT
(  4)  cross2:INT
(  6)  colour:INT
(  8)  facelist:PTR TO INT
( 12)  pad00:LONG
(----) ENDOBJECT      /* SIZEOF=16 */

(----) OBJECT vobject
(  0)  next:LONG
(  4)  prev:LONG
(  8)  ax:INT
( 10)  ay:INT
( 12)  az:INT
( 14)  px:INT
( 16)  py:INT
( 18)  pz:INT
(----) ENDOBJECT      /* SIZEOF=20 */

(----) OBJECT position
(  0)  ax:INT
(  2)  ay:INT
(  4)  az:INT
(  6)  px:INT
(  8)  py:INT
( 10)  pz:INT
(----) ENDOBJECT      /* SIZEOF=12 */

CONST PCF_ZCLIP=1

```

1.231 filledvector.m

```

/* this module contains 5268 bytes of code! */

PROC setVObjectFace(a,b,c,d,e,f,g)
PROC newVectorObject(a,b,c,d,e)
PROC cloneVectorObject(a)
PROC setPolyClipRect(a,b)

```

```
PROC getVObjectPoints(a)
PROC freeVectorObject(a)
PROC copyVectorObject(a)
PROC setMatRotate(a,b,c,d)
PROC newPolyContext(a,b)
PROC moveDrawVList(a,b,c)
PROC freePolyContext(a)
PROC setPolyFlags(a,b,c)
PROC setPolyBitMap(a,b)
PROC setMatScale(a,b,c,d)
PROC matApply3(a,b,c,d)
PROC drawVObject(a,b)
PROC setMatIdent(a)
PROC remVObject(a,b)
PROC addVObject(a,b)
PROC matSize(a,b,c,d)
PROC freeVList(a,b)
PROC drawVList(a,b)
PROC sortVList(a)
PROC matMult(a,b)
PROC newVList()
```

1.232 ilbm.m

```
/* this module contains 1696 bytes of code! */
```

```
PROC ilbm_LoadPicture(a,b)
PROC ilbm_PictureInfo(a)
PROC ilbm_FreeBitMap(a)
PROC ilbm_Dispose(a)
PROC ilbm_New(a,b)
```

1.233 ilbmdefs.m

```
(----) OBJECT bmhd
(  0)   w:INT
(  2)   h:INT
(  4)   x:INT
(  6)   y:INT
(  8)   planes:CHAR
(  9)   masking:CHAR
( 10)   compression:CHAR
( 12)   transcolour:INT
( 14)   xaspect:CHAR
( 15)   yaspect:CHAR
( 16)   pagew:INT
( 18)   pageh:INT
(----) ENDOBJECT      /* SIZEOF=20 */

(----) OBJECT picinfo
(  0)   bmhd:LONG
(  4)   modeid:LONG
```

```
( 8) colours:LONG
(12) palraw:LONG
(16) pal4:LONG
(20) pal32:LONG
(----) ENDOBJECT      /* SIZEOF=24 */

CONST ILBMNB_COLOURS4=1,
      ILBMNF_COLOURS4=2,
      ILBML_GETSCREEN=$80000004,
      ILBML_SCREEN=$80000001,
      ILBML_GETCHUNKY=$80000005,
      ILBML_CHUNKY=$80000002,
      ILBML_SCREENTAGS=$80000006,
      ILBML_NOCOLOUR=$80000007,
      ILBMNB_COLOURS32=0,
      ILBMNF_COLOURS32=1,
      ILBML_GETBITMAP=$80000003,
      ILBML_BITMAP=$80000000
```

1.234 installhook.m

```
/* this module contains 64 bytes of code! */

PROC installhook(hook,func)
```

1.235 lisp.m

```
/* this module contains 1236 bytes of code! */

/* ... and 19 reloc entries */

PROC append(x,y)
PROC showcellstr(cell)
PROC showcell(cell,proc)
PROC filter(l,fun)
PROC foldr(l,fun,end)
PROC showcellint(cell)
PROC length(x)
PROC nrev(x)
PROC map(l,fun)
PROC showstr(x)
PROC partition(l,fun)
PROC zip(x,y)
PROC showint(x)
```

1.236 longreal.m

```
/* this module contains 5476 bytes of code! */

/* ... and 7 reloc entries */
```

```

PROC dNeg(x)
PROC dMul(x,y,to=0)
PROC dInit(trans=-1)
PROC dLog(x,to=0)
PROC dRound(x)
PROC dATan(x,to=0)
PROC dSinh(x,to=0)
PROC dLn(x,to=0)
PROC dDouble(x,to)
PROC dTan(x,to=0)
PROC dACos(x,to=0)
PROC dDiv(x,y,to=0)
PROC dPow(x,y,to=0)
PROC dRoundUp(x)
PROC dAbs(x)
PROC dFloat(int,longreal)
PROC dSqrt(x)
PROC dLFormat(s,x,num)
PROC dFormat(s,x,num)
PROC dCopy(x,y)
PROC dAdd(x,y,to=0)
PROC dASin(x,to=0)
PROC dSingle(x)
PROC dCos(x,to=0)
PROC dSub(x,y,to=0)
PROC dCosh(x,to=0)
PROC dCompare(x,y)
PROC dSin(x,to=0)
PROC dTst(x)
PROC dCleanup(trans=-1)
PROC dPi(x)
PROC dFix(longreal)
PROC a2d(buffer,x)
PROC dTanh(x,to=0)
PROC dRad(x,to=0)
PROC dExp(x,to=0)

DEF mathieeedoubtranscount,mathieeedoubbascount,mathieeedoubtransbase, ←
    mathieeedoubbasbase

(----) OBJECT longreal
(----) ENDOBJECT      /* SIZEOF=8 */

```

1.237 longrealtiny.m

```

/* this module contains 1748 bytes of code! */

/* ... and 4 reloc entries */

PROC dNeg(x)
PROC dMul(x,y,to=0)
PROC dInit(trans=-1)
PROC dRound(x)
PROC dDiv(x,y,to=0)

```

```

PROC dRoundUp(x)
PROC dAbs(x)
PROC dFloat(int,longreal)
PROC dSqrt(x)
PROC dFormat(s,x,num)
PROC dCopy(x,y)
PROC dAdd(x,y,to=0)
PROC dSub(x,y,to=0)
PROC dCompare(x,y)
PROC dCleanup(trans=-1)
PROC dFix(longreal)

DEF mathieeedoubtranscount,mathieeedoubbascount,mathieeedoubtransbase, ←
    mathieeedoubbasbase

(----) OBJECT longreal
(----) ENDOBJECT      /* SIZEOF=8 */

```

1.238 macros.m

```

/* this module contains 140 bytes of code! */

/* ... and 2 reloc entries */

PROC setdrpt(rport,no)
PROC itemnum(x)
PROC subnum(x)
PROC menunum(x)

```

1.239 pt.m

```

/* this module contains 4904 bytes of code! */

/* ... and 69 reloc entries */

PROC pt_play(a)
PROC pt_stop()

```

1.240 scrbuffer.m

```

/* this module contains 592 bytes of code! */

/* ... and 5 reloc entries */

PROC sb_OpenScreen(a,b)
PROC sb_CloseScreen(a)
PROC sb_NextBuffer(a)
PROC sb_GetScreen(a)
PROC sb_GetBitMap(a)

```

1.241 simplelex.m

```
/* this module contains 1216 bytes of code! */

/* ... and 2 reloc entries */

PROC lex_current()
PROC lex_init(start,size,freeform=0,onelinecomment=-2)
PROC lex_getline(s)
PROC lex_curline()
PROC lex()

/* 6 private global variable(s) in this module */

CONST LEX_EOF=$100,
      LEX_EOL=$101,
      LEX_IDENT=$103,
      LEX_STRINGA=$104,
      LEX_STRINGQ=$105,
      LEX_INTEGER=$102

/*
  code from module "emodules:tools/ctype.m" used:
    isalnum()/1 (1x)
*/
```

1.242 trapguru.m

```
/* this module contains 140 bytes of code! */

/* ... and 2 reloc entries */

PROC trapguru()
```

1.243 Vector.m

```
/* this module contains 1364 bytes of code! */

/* ... and 2 reloc entries */

PROC init3d(phi=75,theta=40)
PROC setmiddle3d(x=160,y=128)
PROC vec3d(x,y,z)
PROC setpers3d(irho=1000,id=400)
PROC polygon3d(list,col=1)
```

1.244 utility

date.m	hooks.m
name.m	pack.m
tagitem.m	utility.m

1.245 date.m

```
(----) OBJECT clockdata
(  0)   sec:INT
(  2)   min:INT
(  4)   hour:INT
(  6)   mday:INT
(  8)   month:INT
( 10)   year:INT
( 12)   wday:INT
(----) ENDOBJECT      /* SIZEOF=14 */
```

1.246 hooks.m

```
(----) OBJECT hook
(  0)   mln:mln (or ARRAY OF mln)
(  8)   entry:LONG
( 12)   subentry:LONG
( 16)   data:LONG
(----) ENDOBJECT      /* SIZEOF=20 */
```

1.247 name.m

```
(----) OBJECT namedobject
(  0)   object:LONG
(----) ENDOBJECT      /* SIZEOF=4 */
```

```
CONST ANO_PRIORITY=$FA2,
      NSF_NODUPS=1,
      NSB_NODUPS=0,
      ANO_USERSPACE=$FA1,
      ANO_NAMESPACE=$FA0,
      NSF_CASE=2,
      NSB_CASE=1,
      UTILITY_NAME_I=1,
      ANO_FLAGS=$FA3
```

1.248 pack.m

```
CONST PKCTRL_FLIPBIT=$98000000,
      UTILITY_PACK_I=1,
      PSTF_EXISTS=$4000000,
      PSTB_EXISTS=26,
```

```

PKCTRL_PACKUNPACK=0,
PSTF_PACK=$20000000,
PSTF_UNPACK=$40000000,
PSTB_PACK=29,
PSTB_UNPACK=30,
PKCTRL_UBYTE=0,
PKCTRL_BYTE=$80000000,
PKCTRL_BIT=$18000000,
PSTF_SIGNED=$80000000,
PSTB_SIGNED=31,
PKCTRL_UNPACKONLY=$20000000,
PKCTRL_PACKONLY=$40000000,
PKCTRL_ULONG=$10000000,
PKCTRL_LONG=$90000000,
PKCTRL_UWORD=$8000000,
PKCTRL_WORD=$88000000

```

1.249 tagitem.m

```

(----) OBJECT tagitem
(  0)   tag:LONG
(  4)   data:LONG
(----) ENDOBJECT      /* SIZEOF=8 */

CONST TAG_DONE=0,
      TAG_SKIP=3,
      TAG_IGNORE=1,
      TAG_END=0,
      TAG_USER=$80000000,
      TAGFILTER_AND=0,
      MAP_KEEP_NOT_FOUND=1,
      MAP_REMOVE_NOT_FOUND=0,
      TAG_MORE=2,
      TAGFILTER_NOT=1

```

1.250 utility.m

```

(----) OBJECT utilitybase
(  0)   lib:lib (or ARRAY OF lib)
( 34)   language:CHAR
( 35)   reserved:CHAR
(----) ENDOBJECT      /* SIZEOF=36 */

#define UTILITYNAME/0

```

1.251 workbench

```

startup.m      workbench.m

```

1.252 startup.m

```
(----) OBJECT wbarg
(  0)   lock:LONG
(  4)   name:PTR TO CHAR
(----) ENDOBJECT      /* SIZEOF=8 */

(----) OBJECT wbstartup
(  0)   message:mn (or ARRAY OF mn)
( 20)   process:PTR TO mp
( 24)   segment:LONG
( 28)   numargs:LONG
( 32)   toolwindow:PTR TO CHAR
( 36)   arglist:PTR TO wbarg
(----) ENDOBJECT      /* SIZEOF=40 */

CONST WORKBENCH_STARTUP_I=1
```

1.253 workbench.m

```
(----) OBJECT appmenuitem
(  0)   private:LONG
(----) ENDOBJECT      /* SIZEOF=4 */

(----) OBJECT appicon
(  0)   private:LONG
(----) ENDOBJECT      /* SIZEOF=4 */

(----) OBJECT appwindow
(  0)   private:LONG
(----) ENDOBJECT      /* SIZEOF=4 */

(----) OBJECT appmessage
(  0)   message:mn (or ARRAY OF mn)
( 20)   type:INT
( 22)   userdata:LONG
( 26)   id:LONG
( 30)   numargs:LONG
( 34)   arglist:PTR TO wbarg
( 38)   version:INT
( 40)   class:INT
( 42)   mousex:INT
( 44)   mousey:INT
( 46)   seconds:LONG
( 50)   micros:LONG
( 54)   reserved[8]:ARRAY OF LONG
(----) ENDOBJECT      /* SIZEOF=86 */

(----) OBJECT freelist
(  0)   numfree:INT
(  2)   memlist:lh (or ARRAY OF lh)
(----) ENDOBJECT      /* SIZEOF=16 */

(----) OBJECT diskobject
```

```

( 0)    magic:INT
( 2)    version:INT
( 4)    gadget:gadget (or ARRAY OF gadget)
(48)    type:CHAR
(49)    pad_byte:CHAR
(50)    defaulttool:PTR TO CHAR
(54)    tooltypes:PTR TO LONG
(58)    currentx:LONG
(62)    currenty:LONG
(66)    drawerdata:PTR TO drawerdata
(70)    toolwindow:PTR TO CHAR
(74)    stacksize:LONG
(----) ENDOBJECT      /* SIZEOF=78 */

(----) OBJECT drawerdata
( 0)    newwindow:nw (or ARRAY OF nw)
(48)    currentx:LONG
(52)    currenty:LONG
(56)    flags:LONG
(60)    viewmodes:INT
(----) ENDOBJECT      /* SIZEOF=62 */

(----) OBJECT olddrawerdata
( 0)    newwindow:nw (or ARRAY OF nw)
(48)    currentx:LONG
(52)    currenty:LONG
(----) ENDOBJECT      /* SIZEOF=56 */

CONST AMTYPE_APPICON=8,
      WBAPPICON=8,
      AMTYPE_APPMENUITEM=9,
      WBTOOL=3,
      WB_DISKREVISIONMASK=$FF,
      WBPROJECT=4,
      NO_ICON_POSITION=$80000000,
      WBGARBAGE=5,
      WB_DISKMAGIC=$E310,
      WBDEVICE=6,
      WBKICK=7,
      WBDRAWER=2,
      AMTYPE_APPWINDOW=7,
      WBDISK=1,
      WORKBENCH_WORKBENCH_I=1,
      AM_VERSION=1,
      GADGBACKFILL=1,
      GFLG_GADGBACKFILL=1,
      WB_DISKREVISION=1,
      WB_DISKVERSION=1,
      DRAWERDATAFILESIZE=$3E,
      OLDDRAWERDATAFILESIZE=$38

#define WORKBENCH_NAME/0

```

1.254 Root Directory Modules

amigaguide.m	arq.m	asl.m
bullet.m	colorwheel.m	commodities.m
console.m	cybergraphics.m	datatypes.m
diskfont.m	dos.m	dtclass.m
exec.m	expansion.m	gadtools.m
graphics.m	gtlayout.m	gtx.m
icon.m	iff.m	iffparse.m
input.m	intuition.m	keymap.m
layers.m	locale.m	lowlevel.m
mathffp.m	mathieeedoubbas.m	mathieeedoubtrans.m
mathieeesingbas.m	mathieeesingtrans.m	mathtrans.m
midi.m	muimaster.m	nofrag.m
nonvolatile.m	powerpacker.m	ramdrive.m
realtime.m	req.m	reqtools.m
rexsyslib.m	timer.m	translator.m
utility.m	wb.m	

1.255 amigaguide.m

```

LIBRARY amigaguidebase          /* informal notation */
AgARexxHost (A0,A1)             /* -30 (1E) */
LockAmigaGuideBase (A0)         /* -36 (24) */
UnlockAmigaGuideBase (D0)       /* -42 (2A) */
OpenAmigaGuideA (A0,A1)         /* -54 (36) */
OpenAmigaGuideAsyncA (A0,D0)    /* -60 (3C) */
CloseAmigaGuide (A0)            /* -66 (42) */
AmigaGuideSignal (A0)           /* -72 (48) */
GetAmigaGuideMsg (A0)           /* -78 (4E) */
ReplyAmigaGuideMsg (A0)         /* -84 (54) */
SetAmigaGuideContextA (A0,D0,D1) /* -90 (5A) */
SendAmigaGuideContextA (A0,D0)  /* -96 (60) */
SendAmigaGuideCmdA (A0,D0,D1)   /* -102 (66) */
SetAmigaGuideAttrA (A0,A1)      /* -108 (6C) */
GetAmigaGuideAttr (D0,A0,A1)    /* -114 (72) */
AddAmigaGuideHostA (A0,D0,A1)   /* -138 (8A) */
RemoveAmigaGuideHostA (A0,A1)   /* -144 (90) */
GetAmigaGuideString (D0)        /* -210 (D2) */
ENDLIBRARY

```

1.256 arq.m

```

(----) OBJECT exteasystruct
( 0)   image:PTR TO image
( 4)   sound:LONG
( 8)   animid:INT
(10)   flags:INT
(12)   magic:LONG
(16)   reserved[3]:ARRAY OF LONG
(28)   easy:easystruct (or ARRAY OF easystruct)
(----) ENDOBJECT          /* SIZEOF=48 */

```

```
CONST ARQ_ID_EXCLAM=8,  
      ARQ_ID_IMAGE=-1,  
      ARQ_ID_QUESTION=7,  
      ARQ_MAGIC=$6D6A6C21,  
      ARQ_ID_RWERROR=4,  
      ARQ_ID_ANIM=-2,  
      ARQ_ID_INFO=0,  
      ARQ_ID_GURU=3,  
      ARQ_ID_PRINTER=6,  
      ARQ_ID_DELETE=2,  
      ARQ_ID_WPROTECT=5,  
      ARQ_ID_DISK=1
```

1.257 asl.m

```
LIBRARY aslbase          /* informal notation */  
  AllocFileRequest ()    /* -30 (1E) */  
  FreeFileRequest (A0)   /* -36 (24) */  
  RequestFile (A0)       /* -42 (2A) */  
  AllocAslRequest (D0,A0) /* -48 (30) */  
  FreeAslRequest (A0)    /* -54 (36) */  
  AslRequest (A0,A1)     /* -60 (3C) */  
ENDLIBRARY
```

1.258 bullet.m

```
LIBRARY bulletbase      /* informal notation */  
  OpenEngine ()         /* -30 (1E) */  
  CloseEngine (A0)      /* -36 (24) */  
  SetInfoA (A0,A1)      /* -42 (2A) */  
  ObtainInfoA (A0,A1)   /* -48 (30) */  
  ReleaseInfoA (A0,A1)  /* -54 (36) */  
ENDLIBRARY
```

1.259 colorwheel.m

```
LIBRARY colorwheelbase  /* informal notation */  
  ConvertHSBToRGB (A0,A1) /* -30 (1E) */  
  ConvertRGBToHSB (A0,A1) /* -36 (24) */  
ENDLIBRARY
```

1.260 commodities.m

```
LIBRARY cxbase          /* informal notation */  
  CreateCxObj (D0,A0,A1) /* -30 (1E) */  
  CxBroker (A0,D0)       /* -36 (24) */  
  ActivateCxObj (A0,D0)  /* -42 (2A) */
```

```

DeleteCXObject(A0)      /* -48 (30) */
DeleteCXObjectAll(A0)   /* -54 (36) */
CXObjectType(A0)        /* -60 (3C) */
CXObjectError(A0)       /* -66 (42) */
ClearCXObjectError(A0)  /* -72 (48) */
SetCXObjectPri(A0,D0)   /* -78 (4E) */
AttachCXObject(A0,A1)   /* -84 (54) */
EnqueueCXObject(A0,A1)  /* -90 (5A) */
InsertCXObject(A0,A1,A2) /* -96 (60) */
RemoveCXObject(A0)      /* -102 (66) */
SetTranslate(A0,A1)     /* -114 (72) */
SetFilter(A0,A1)        /* -120 (78) */
SetFilterIX(A0,A1)      /* -126 (7E) */
ParseIX(A0,A1)          /* -132 (84) */
CxCMsgType(A0)          /* -138 (8A) */
CxCMsgData(A0)          /* -144 (90) */
CxCMsgID(A0)            /* -150 (96) */
DivertCxCMsg(A0,A1,A2)  /* -156 (9C) */
RouteCxCMsg(A0,A1)      /* -162 (A2) */
DisposeCxCMsg(A0)       /* -168 (A8) */
InvertKeyMap(D0,A0,A1)  /* -174 (AE) */
AddIEvents(A0)          /* -180 (B4) */
MatchIX(A0,A1)          /* -204 (CC) */
ENDLIBRARY

```

1.261 console.m

```

LIBRARY consoledevice    /* informal notation */
CdInputHandler(A0,A1)    /* -42 (2A) */
RawKeyConvert(A0,A1,D1,A2) /* -48 (30) */
ENDLIBRARY

```

1.262 cybergraphics.m

```

LIBRARY cybergfxbase     /* informal notation */
Dum()                    /* -30 (1E) */
Dum()                    /* -36 (24) */
Dum()                    /* -42 (2A) */
Dum()                    /* -48 (30) */
IsCyberModeID(D0)        /* -54 (36) */
BestCModeIDTagList(A0)   /* -60 (3C) */
CmodeRequestTagList(A0,A1) /* -66 (42) */
AllocCModeListTagList(A1) /* -72 (48) */
FreeCModeList(A0)        /* -78 (4E) */
Dum()                    /* -84 (54) */
ScalePixelArray(A0,D0,D1,D2,A1,D3,D4,D5,D6,D7) /* -90 (5A) */
GetCyberMapAttr(A0,D0)   /* -96 (60) */
GetCyberIDAttr(D0,D1)    /* -102 (66) */
ReadRGBPixel(A1,D0,D1)   /* -108 (6C) */
WriteRGBPixel(A1,D0,D1,D2) /* -114 (72) */
ReadPixelArray(A0,D0,D1,D2,A1,D3,D4,D5,D6,D7) /* -120 (78) */
WritePixelArray(A0,D0,D1,D2,A1,D3,D4,D5,D6,D7) /* -126 (7E) */

```

```

MovePixelArray(D0,D1,A1,D2,D3,D4,D5)      /* -132 (84) */
SwapPixelArray(A0,D0,D1,D2,A1,D3,D4,D5,D6,D7) /* -138 (8A) */
InvertPixelArray(A1,D0,D1,D2,D3)           /* -144 (90) */
FillPixelArray(A1,D0,D1,D2,D3,D4)          /* -150 (96) */
DoCDDrawMethodTagList(A0,A1,A2)           /* -156 (9C) */
ENDLIBRARY

```

1.263 datatypes.m

```

LIBRARY datatypesbase      /* informal notation */
R1Dispatch(A0,A1)          /* -30 (1E) */
ObtainDataTypeA(D0,A0,A1)  /* -36 (24) */
ReleaseDataType(A0)        /* -42 (2A) */
NewDTObjectA(D0,A0)        /* -48 (30) */
DisposeDTObject(A0)        /* -54 (36) */
SetDTAttrsA(A0,A1,A2,A3)   /* -60 (3C) */
GetDTAttrsA(A0,A2)         /* -66 (42) */
AddDTObject(A0,A1,A2,D0)   /* -72 (48) */
RefreshDTObjectA(A0,A1,A2,A3) /* -78 (4E) */
DoAsyncLayout(A0,A1)       /* -84 (54) */
DoDTMethodA(A0,A1,A2,A3)   /* -90 (5A) */
RemoveDTObject(A0,A1)      /* -96 (60) */
GetDTMethods(A0)           /* -102 (66) */
GetDTTriggerMethods(A0)    /* -108 (6C) */
PrintDTObjectA(A0,A1,A2,A3) /* -114 (72) */
GetDTString(D0)            /* -138 (8A) */
ENDLIBRARY

```

1.264 diskfont.m

```

LIBRARY diskfontbase      /* informal notation */
OpenDiskFont(A0)          /* -30 (1E) */
AvailFonts(A0,D0,D1)      /* -36 (24) */
NewFontContents(A0,A1)    /* -42 (2A) */
DisposeFontContents(A1)   /* -48 (30) */
NewScaledDiskFont(A0,A1)  /* -54 (36) */
ENDLIBRARY

```

1.265 dos.m

```

LIBRARY dosbase           /* informal notation */
Open(D1,D2)              /* -30 (1E) */
Close(D1)                 /* -36 (24) */
Read(D1,D2,D3)            /* -42 (2A) */
Write(D1,D2,D3)           /* -48 (30) */
Input()                   /* -54 (36) */
Output()                  /* -60 (3C) */
Seek(D1,D2,D3)            /* -66 (42) */
DeleteFile(D1)            /* -72 (48) */
Rename(D1,D2)             /* -78 (4E) */

```

```
Lock(D1,D2)      /* -84 (54) */
UnLock(D1)       /* -90 (5A) */
DupLock(D1)      /* -96 (60) */
Examine(D1,D2)   /* -102 (66) */
ExNext(D1,D2)    /* -108 (6C) */
Info(D1,D2)      /* -114 (72) */
CreateDir(D1)     /* -120 (78) */
CurrentDir(D1)    /* -126 (7E) */
IoErr()          /* -132 (84) */
CreateProc(D1,D2,D3,D4) /* -138 (8A) */
Exit(D1)         /* -144 (90) */
LoadSeg(D1)      /* -150 (96) */
UnLoadSeg(D1)    /* -156 (9C) */
DeviceProc(D1)   /* -174 (AE) */
SetComment(D1,D2) /* -180 (B4) */
SetProtection(D1,D2) /* -186 (BA) */
DateStamp(D1)    /* -192 (C0) */
Delay(D1)        /* -198 (C6) */
WaitForChar(D1,D2) /* -204 (CC) */
ParentDir(D1)    /* -210 (D2) */
IsInteractive(D1) /* -216 (D8) */
Execute(D1,D2,D3) /* -222 (DE) */
AllocDosObject(D1,D2) /* -228 (E4) */
FreeDosObject(D1,D2) /* -234 (EA) */
DoPkt(D1,D2,D3,D4,D5,D6,D7) /* -240 (F0) */
SendPkt(D1,D2,D3) /* -246 (F6) */
WaitPkt()        /* -252 (FC) */
ReplyPkt(D1,D2,D3) /* -258 (102) */
AbortPkt(D1,D2)  /* -264 (108) */
LockRecord(D1,D2,D3,D4,D5) /* -270 (10E) */
LockRecords(D1,D2) /* -276 (114) */
UnLockRecord(D1,D2,D3) /* -282 (11A) */
UnLockRecords(D1) /* -288 (120) */
SelectInput(D1)  /* -294 (126) */
SelectOutput(D1) /* -300 (12C) */
Fgetc(D1)        /* -306 (132) */
Fputc(D1,D2)     /* -312 (138) */
Ungetc(D1,D2)    /* -318 (13E) */
Fread(D1,D2,D3,D4) /* -324 (144) */
Fwrite(D1,D2,D3,D4) /* -330 (14A) */
Fgets(D1,D2,D3)  /* -336 (150) */
Fputs(D1,D2)     /* -342 (156) */
VfWritetf(D1,D2,D3) /* -348 (15C) */
VfPrintf(D1,D2,D3) /* -354 (162) */
Flush(D1)        /* -360 (168) */
SetVBuf(D1,D2,D3,D4) /* -366 (16E) */
DupLockFromFH(D1) /* -372 (174) */
OpenFromLock(D1) /* -378 (17A) */
ParentOfFH(D1)   /* -384 (180) */
ExamineFH(D1,D2) /* -390 (186) */
SetFileDate(D1,D2) /* -396 (18C) */
NameFromLock(D1,D2,D3) /* -402 (192) */
NameFromFH(D1,D2,D3) /* -408 (198) */
SplitName(D1,D2,D3,D4,D5) /* -414 (19E) */
SameLock(D1,D2)  /* -420 (1A4) */
SetMode(D1,D2)   /* -426 (1AA) */
ExAll(D1,D2,D3,D4,D5) /* -432 (1B0) */
```

```
ReadLink(D1,D2,D3,D4,D5)      /* -438 (1B6) */
MakeLink(D1,D2,D3)            /* -444 (1BC) */
ChangeMode(D1,D2,D3)          /* -450 (1C2) */
SetFileSize(D1,D2,D3)          /* -456 (1C8) */
SetIoErr(D1)                   /* -462 (1CE) */
Fault(D1,D2,D3,D4)            /* -468 (1D4) */
PrintFault(D1,D2)              /* -474 (1DA) */
ErrorReport(D1,D2,D3,D4)       /* -480 (1E0) */
Cli()                          /* -492 (1EC) */
CreateNewProc(D1)              /* -498 (1F2) */
RunCommand(D1,D2,D3,D4)        /* -504 (1F8) */
GetConsoleTask()               /* -510 (1FE) */
SetConsoleTask(D1)             /* -516 (204) */
GetFileSysTask()               /* -522 (20A) */
SetFileSysTask(D1)             /* -528 (210) */
GetArgStr()                     /* -534 (216) */
SetArgStr(D1)                  /* -540 (21C) */
FindCliProc(D1)                /* -546 (222) */
MaxCli()                       /* -552 (228) */
SetCurrentDirName(D1)          /* -558 (22E) */
GetCurrentDirName(D1,D2)       /* -564 (234) */
SetProgramName(D1)             /* -570 (23A) */
GetProgramName(D1,D2)          /* -576 (240) */
SetPrompt(D1)                  /* -582 (246) */
GetPrompt(D1,D2)               /* -588 (24C) */
SetProgramDir(D1)              /* -594 (252) */
GetProgramDir()                /* -600 (258) */
SystemTagList(D1,D2)           /* -606 (25E) */
AssignLock(D1,D2)              /* -612 (264) */
AssignLate(D1,D2)              /* -618 (26A) */
AssignPath(D1,D2)              /* -624 (270) */
AssignAdd(D1,D2)               /* -630 (276) */
RemAssignList(D1,D2)           /* -636 (27C) */
GetDeviceProc(D1,D2)           /* -642 (282) */
FreeDeviceProc(D1)             /* -648 (288) */
LockDosList(D1)                /* -654 (28E) */
UnLockDosList(D1)              /* -660 (294) */
AttemptLockDosList(D1)         /* -666 (29A) */
RemDosEntry(D1)                /* -672 (2A0) */
AddDosEntry(D1)                /* -678 (2A6) */
FindDosEntry(D1,D2,D3)         /* -684 (2AC) */
NextDosEntry(D1,D2)            /* -690 (2B2) */
MakeDosEntry(D1,D2)            /* -696 (2B8) */
FreeDosEntry(D1)               /* -702 (2BE) */
IsFileSystem(D1)               /* -708 (2C4) */
Format(D1,D2,D3)               /* -714 (2CA) */
Relabel(D1,D2)                 /* -720 (2D0) */
Inhibit(D1,D2)                 /* -726 (2D6) */
AddBuffers(D1,D2)              /* -732 (2DC) */
CompareDates(D1,D2)            /* -738 (2E2) */
DateToStr(D1)                  /* -744 (2E8) */
StrToDate(D1)                  /* -750 (2EE) */
InternalLoadSeg(D0,A0,A1,A2)    /* -756 (2F4) */
InternalUnLoadSeg(D1,A1)        /* -762 (2FA) */
NewLoadSeg(D1,D2)              /* -768 (300) */
AddSegment(D1,D2,D3)           /* -774 (306) */
FindSegment(D1,D2,D3)          /* -780 (30C) */
```

```

RemSegment(D1)      /* -786 (312) */
CheckSignal(D1)     /* -792 (318) */
ReadArgs(D1,D2,D3)  /* -798 (31E) */
FindArg(D1,D2)      /* -804 (324) */
ReadItem(D1,D2,D3)  /* -810 (32A) */
StrToLong(D1,D2)    /* -816 (330) */
MatchFirst(D1,D2)   /* -822 (336) */
MatchNext(D1)       /* -828 (33C) */
MatchEnd(D1)        /* -834 (342) */
ParsePattern(D1,D2,D3) /* -840 (348) */
MatchPattern(D1,D2) /* -846 (34E) */
FreeArgs(D1)        /* -858 (35A) */
FilePart(D1)        /* -870 (366) */
PathPart(D1)        /* -876 (36C) */
AddPart(D1,D2,D3)   /* -882 (372) */
StartNotify(D1)     /* -888 (378) */
EndNotify(D1)       /* -894 (37E) */
SetVar(D1,D2,D3,D4) /* -900 (384) */
GetVar(D1,D2,D3,D4) /* -906 (38A) */
DeleteVar(D1,D2)    /* -912 (390) */
FindVar(D1,D2)      /* -918 (396) */
CliInitNewcli(A0)   /* -930 (3A2) */
CliInitRun(A0)      /* -936 (3A8) */
WriteChars(D1,D2)   /* -942 (3AE) */
PutStr(D1)          /* -948 (3B4) */
Vprintf(D1,D2)      /* -954 (3BA) */
ParsePatternNoCase(D1,D2,D3) /* -966 (3C6) */
MatchPatternNoCase(D1,D2) /* -972 (3CC) */
SameDevice(D1,D2)   /* -984 (3D8) */
ExAllEnd(D1,D2,D3,D4,D5) /* -990 (3DE) */
SetOwner(D1,D2)     /* -996 (3E4) */
ENDLIBRARY

```

1.266 dtclass.m

```

LIBRARY dtclassbase /* informal notation */
ObtainEngine()      /* -30 (1E) */
ENDLIBRARY

```

1.267 exec.m

```

LIBRARY sysbase /* informal notation */
Supervisor(A5)  /* -30 (1E) */
InitCode(D0,D1) /* -72 (48) */
InitStruct(A1,A2,D0) /* -78 (4E) */
MakeLibrary(A0,A1,A2,D0,D1) /* -84 (54) */
MakeFunctions(A0,A1,A2) /* -90 (5A) */
FindResident(A1) /* -96 (60) */
InitResident(A1,D1) /* -102 (66) */
Alert(D7) /* -108 (6C) */
Debug(D0) /* -114 (72) */
Disable() /* -120 (78) */

```

```
Enable()          /* -126 (7E) */
Forbid()          /* -132 (84) */
Permit()          /* -138 (8A) */
SetSR(D0,D1)      /* -144 (90) */
SuperState()      /* -150 (96) */
UserState(D0)     /* -156 (9C) */
SetIntVector(D0,A1) /* -162 (A2) */
AddIntServer(D0,A1) /* -168 (A8) */
RemIntServer(D0,A1) /* -174 (AE) */
Cause(A1)         /* -180 (B4) */
Allocate(A0,D0)    /* -186 (BA) */
Deallocate(A0,A1,D0) /* -192 (C0) */
AllocMem(D0,D1)    /* -198 (C6) */
AllocAbs(D0,A1)    /* -204 (CC) */
FreeMem(A1,D0)     /* -210 (D2) */
AvailMem(D1)       /* -216 (D8) */
AllocEntry(A0)     /* -222 (DE) */
FreeEntry(A0)      /* -228 (E4) */
Insert(A0,A1,A2)   /* -234 (EA) */
AddHead(A0,A1)     /* -240 (F0) */
AddTail(A0,A1)     /* -246 (F6) */
Remove(A1)         /* -252 (FC) */
RemHead(A0)        /* -258 (102) */
RemTail(A0)        /* -264 (108) */
Enqueue(A0,A1)     /* -270 (10E) */
FindName(A0,A1)    /* -276 (114) */
AddTask(A1,A2,A3)  /* -282 (11A) */
RemTask(A1)        /* -288 (120) */
FindTask(A1)       /* -294 (126) */
SetTaskPri(A1,D0)  /* -300 (12C) */
SetSignal(D0,D1)   /* -306 (132) */
SetExcept(D0,D1)   /* -312 (138) */
Wait(D0)           /* -318 (13E) */
Signal(A1,D0)      /* -324 (144) */
AllocSignal(D0)    /* -330 (14A) */
FreeSignal(D0)     /* -336 (150) */
AllocTrap(D0)      /* -342 (156) */
FreeTrap(D0)       /* -348 (15C) */
AddPort(A1)        /* -354 (162) */
RemPort(A1)        /* -360 (168) */
PutMsg(A0,A1)      /* -366 (16E) */
GetMsg(A0)         /* -372 (174) */
ReplyMsg(A1)       /* -378 (17A) */
WaitPort(A0)       /* -384 (180) */
FindPort(A1)       /* -390 (186) */
AddLibrary(A1)     /* -396 (18C) */
RemLibrary(A1)     /* -402 (192) */
OldOpenLibrary(A1) /* -408 (198) */
CloseLibrary(A1)   /* -414 (19E) */
SetFunction(A1,A0,D0) /* -420 (1A4) */
SumLibrary(A1)     /* -426 (1AA) */
AddDevice(A1)      /* -432 (1B0) */
RemDevice(A1)      /* -438 (1B6) */
OpenDevice(A0,D0,A1,D1) /* -444 (1BC) */
CloseDevice(A1)    /* -450 (1C2) */
DoIO(A1)           /* -456 (1C8) */
SendIO(A1)         /* -462 (1CE) */
```

```

CheckIO(A1)      /* -468 (1D4) */
WaitIO(A1)       /* -474 (1DA) */
AbortIO(A1)      /* -480 (1E0) */
AddResource(A1)  /* -486 (1E6) */
RemResource(A1)  /* -492 (1EC) */
OpenResource(A1) /* -498 (1F2) */
RawDoFmt(A0,A1,A2,A3) /* -522 (20A) */
GetCC()          /* -528 (210) */
TypeOfMem(A1)    /* -534 (216) */
Procure(A0,A1)   /* -540 (21C) */
Vacate(A0,A1)    /* -546 (222) */
OpenLibrary(A1,D0) /* -552 (228) */
InitSemaphore(A0) /* -558 (22E) */
ObtainSemaphore(A0) /* -564 (234) */
ReleaseSemaphore(A0) /* -570 (23A) */
AttemptSemaphore(A0) /* -576 (240) */
ObtainSemaphoreList(A0) /* -582 (246) */
ReleaseSemaphoreList(A0) /* -588 (24C) */
FindSemaphore(A1) /* -594 (252) */
AddSemaphore(A1) /* -600 (258) */
RemSemaphore(A1) /* -606 (25E) */
SumKickData() /* -612 (264) */
AddMemList(D0,D1,D2,A0,A1) /* -618 (26A) */
CopyMem(A0,A1,D0) /* -624 (270) */
CopyMemQuick(A0,A1,D0) /* -630 (276) */
CacheClearU() /* -636 (27C) */
CacheClearE(A0,D0,D1) /* -642 (282) */
CacheControl(D0,D1) /* -648 (288) */
CreateIORequest(A0,D0) /* -654 (28E) */
DeleteIORequest(A0) /* -660 (294) */
CreateMsgPort() /* -666 (29A) */
DeleteMsgPort(A0) /* -672 (2A0) */
ObtainSemaphoreShared(A0) /* -678 (2A6) */
AllocVec(D0,D1) /* -684 (2AC) */
FreeVec(A1) /* -690 (2B2) */
CreatePool(D0,D1,D2) /* -696 (2B8) */
DeletePool(A0) /* -702 (2BE) */
AllocPooled(A0,D0) /* -708 (2C4) */
FreePooled(A0,A1,D0) /* -714 (2CA) */
AttemptSemaphoreShared(A0) /* -720 (2D0) */
ColdReboot() /* -726 (2D6) */
StackSwap(A0) /* -732 (2DC) */
ChildFree(D0) /* -738 (2E2) */
ChildOrphan(D0) /* -744 (2E8) */
ChildStatus(D0) /* -750 (2EE) */
ChildWait(D0) /* -756 (2F4) */
CachePreDMA(A0,A1,D0) /* -762 (2FA) */
CachePostDMA(A0,A1,D0) /* -768 (300) */
AddMemHandler(A1) /* -774 (306) */
RemMemHandler(A1) /* -780 (30C) */
ObtainQuickVector(A0) /* -786 (312) */
ENDLIBRARY

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1.268 expansion.m

```

LIBRARY expansionbase          /* informal notation */
  AddConfigDev(A0)             /* -30 (1E) */
  AddBootNode(D0,D1,A0,A1)     /* -36 (24) */
  AllocBoardMem(D0)            /* -42 (2A) */
  AllocConfigDev()             /* -48 (30) */
  AllocExpansionMem(D0,D1)      /* -54 (36) */
  ConfigBoard(A0,A1)           /* -60 (3C) */
  ConfigChain(A0)              /* -66 (42) */
  FindConfigDev(A0,D0,D1)       /* -72 (48) */
  FreeBoardMem(D0,D1)          /* -78 (4E) */
  FreeConfigDev(A0)            /* -84 (54) */
  FreeExpansionMem(D0,D1)       /* -90 (5A) */
  ReadExpansionByte(A0,D0)      /* -96 (60) */
  ReadExpansionRom(A0,A1)       /* -102 (66) */
  RemConfigDev(A0)             /* -108 (6C) */
  WriteExpansionByte(A0,D0,D1)  /* -114 (72) */
  ObtainConfigBinding()         /* -120 (78) */
  ReleaseConfigBinding()        /* -126 (7E) */
  SetCurrentBinding(A0,D0)      /* -132 (84) */
  GetCurrentBinding(A0,D0)      /* -138 (8A) */
  MakeDosNode(A0)              /* -144 (90) */
  AddDosNode(D0,D1,A0)         /* -150 (96) */
ENDLIBRARY

```

1.269 gadtools.m

```

LIBRARY gadtoolsbase          /* informal notation */
  CreateGadgetA(D0,A0,A1,A2)   /* -30 (1E) */
  FreeGadgets(A0)             /* -36 (24) */
  Gt_SetGadgetAttrsA(A0,A1,A2,A3) /* -42 (2A) */
  CreateMenusA(A0,A1)         /* -48 (30) */
  FreeMenus(A0)              /* -54 (36) */
  LayoutMenuItemsA(A0,A1,A2)   /* -60 (3C) */
  LayoutMenusA(A0,A1,A2)       /* -66 (42) */
  Gt_GetIMsg(A0)              /* -72 (48) */
  Gt_ReplyIMsg(A1)            /* -78 (4E) */
  Gt_RefreshWindow(A0,A1)      /* -84 (54) */
  Gt_BeginRefresh(A0)         /* -90 (5A) */
  Gt_EndRefresh(A0,D0)        /* -96 (60) */
  Gt_FilterIMsg(A1)           /* -102 (66) */
  Gt_PostFilterIMsg(A1)        /* -108 (6C) */
  CreateContext(A0)           /* -114 (72) */
  DrawBevelBoxA(A0,D0,D1,D2,D3,A1) /* -120 (78) */
  GetVisualInfoA(A0,A1)       /* -126 (7E) */
  FreeVisualInfo(A0)          /* -132 (84) */
  Gt_GetGadgetAttrsA(A0,A1,A2,A3) /* -174 (AE) */
ENDLIBRARY

```

1.270 graphics.m

```

LIBRARY gfxbase              /* informal notation */

```

```

BltBitMap(A0,D0,D1,A1,D2,D3,D4,D5,D6,D7,A2)      /* -30 (1E) */
BltTemplate(A0,D0,D1,A1,D2,D3,D4,D5)             /* -36 (24) */
ClearEOL(A1)      /* -42 (2A) */
ClearScreen(A1)    /* -48 (30) */
TextLength(A1,A0,D0)      /* -54 (36) */
Text(A1,A0,D0)      /* -60 (3C) */
SetFont(A1,A0)      /* -66 (42) */
OpenFont(A0)      /* -72 (48) */
CloseFont(A1)      /* -78 (4E) */
AskSoftStyle(A1)      /* -84 (54) */
SetSoftStyle(A1,D0,D1)      /* -90 (5A) */
AddBob(A0,A1)      /* -96 (60) */
AddVSprite(A0,A1)      /* -102 (66) */
DoCollision(A1)      /* -108 (6C) */
DrawGLList(A1,A0)      /* -114 (72) */
InitGels(A0,A1,A2)      /* -120 (78) */
InitMasks(A0)      /* -126 (7E) */
RemIBob(A0,A1,A2)      /* -132 (84) */
RemVSprite(A0)      /* -138 (8A) */
SetCollision(D0,A0,A1)      /* -144 (90) */
SortGLList(A1)      /* -150 (96) */
AddAnimOb(A0,A1,A2)      /* -156 (9C) */
Animate(A0,A1)      /* -162 (A2) */
GetGBuffers(A0,A1,D0)      /* -168 (A8) */
InitGMasks(A0)      /* -174 (AE) */
DrawEllipse(A1,D0,D1,D2,D3)      /* -180 (B4) */
AreaEllipse(A1,D0,D1,D2,D3)      /* -186 (BA) */
LoadRGB4(A0,A1,D0)      /* -192 (C0) */
InitRastPort(A1)      /* -198 (C6) */
InitVPort(A0)      /* -204 (CC) */
MrgCop(A1)      /* -210 (D2) */
MakeVPort(A0,A1)      /* -216 (D8) */
LoadView(A1)      /* -222 (DE) */
WaitBlit()      /* -228 (E4) */
SetRast(A1,D0)      /* -234 (EA) */
Move(A1,D0,D1)      /* -240 (F0) */
Draw(A1,D0,D1)      /* -246 (F6) */
AreaMove(A1,D0,D1)      /* -252 (FC) */
AreaDraw(A1,D0,D1)      /* -258 (102) */
AreaEnd(A1)      /* -264 (108) */
WaitTOF()      /* -270 (10E) */
Qblit(A1)      /* -276 (114) */
InitArea(A0,A1,D0)      /* -282 (11A) */
SetRGB4(A0,D0,D1,D2,D3)      /* -288 (120) */
QbsBlit(A1)      /* -294 (126) */
BltClear(A1,D0,D1)      /* -300 (12C) */
RectFill(A1,D0,D1,D2,D3)      /* -306 (132) */
BltPattern(A1,A0,D0,D1,D2,D3,D4)      /* -312 (138) */
ReadPixel(A1,D0,D1)      /* -318 (13E) */
WritePixel(A1,D0,D1)      /* -324 (144) */
Flood(A1,D2,D0,D1)      /* -330 (14A) */
PolyDraw(A1,D0,A0)      /* -336 (150) */
SetAPen(A1,D0)      /* -342 (156) */
SetBPen(A1,D0)      /* -348 (15C) */
SetDrMd(A1,D0)      /* -354 (162) */
InitView(A1)      /* -360 (168) */
Cbump(A1)      /* -366 (16E) */

```

```

Cmove(A1,D0,D1)      /* -372 (174) */
Cwait(A1,D0,D1)      /* -378 (17A) */
VbeamPos()           /* -384 (180) */
InitBitMap(A0,D0,D1,D2) /* -390 (186) */
ScrollRaster(A1,D0,D1,D2,D3,D4,D5) /* -396 (18C) */
WaitBOVP(A0)         /* -402 (192) */
GetSprite(A0,D0)      /* -408 (198) */
FreeSprite(D0)        /* -414 (19E) */
ChangeSprite(A0,A1,A2) /* -420 (1A4) */
MoveSprite(A0,A1,D0,D1) /* -426 (1AA) */
LockLayerRom(A5)      /* -432 (1B0) */
UnlockLayerRom(A5)    /* -438 (1B6) */
SyncSBitMap(A0)       /* -444 (1BC) */
CopySBitMap(A0)       /* -450 (1C2) */
OwnBlitter()          /* -456 (1C8) */
DisownBlitter()       /* -462 (1CE) */
InitTmpRas(A0,A1,D0)  /* -468 (1D4) */
AskFont(A1,A0)        /* -474 (1DA) */
AddFont(A1)           /* -480 (1E0) */
RemFont(A1)           /* -486 (1E6) */
AllocRaster(D0,D1)    /* -492 (1EC) */
FreeRaster(A0,D0,D1)  /* -498 (1F2) */
AndRectRegion(A0,A1)  /* -504 (1F8) */
OrRectRegion(A0,A1)   /* -510 (1FE) */
NewRegion()           /* -516 (204) */
ClearRectRegion(A0,A1) /* -522 (20A) */
ClearRegion(A0)        /* -528 (210) */
DisposeRegion(A0)      /* -534 (216) */
FreeVPortCopLists(A0) /* -540 (21C) */
FreeCopList(A0)        /* -546 (222) */
ClipBlit(A0,D0,D1,A1,D2,D3,D4,D5,D6) /* -552 (228) */
XorRectRegion(A0,A1)  /* -558 (22E) */
FreeCprList(A0)       /* -564 (234) */
GetColorMap(D0)        /* -570 (23A) */
FreeColorMap(A0)       /* -576 (240) */
GetRGB4(A0,D0)         /* -582 (246) */
ScrollVPort(A0)        /* -588 (24C) */
UcopperListInit(A0,D0) /* -594 (252) */
FreeGBuffers(A0,A1,D0) /* -600 (258) */
BlitBitMapRastPort(A0,D0,D1,A1,D2,D3,D4,D5,D6) /* -606 (25E) */
OrRegionRegion(A0,A1) /* -612 (264) */
XorRegionRegion(A0,A1) /* -618 (26A) */
AndRegionRegion(A0,A1) /* -624 (270) */
SetRGB4CM(A0,D0,D1,D2,D3) /* -630 (276) */
BlitMaskBitMapRastPort(A0,D0,D1,A1,D2,D3,D4,D5,D6,A2) /* -636 (27C) */
AttemptLockLayerRom(A5) /* -654 (28E) */
GfxNew(D0)            /* -660 (294) */
GfxFree(A0)           /* -666 (29A) */
GfxAssociate(A0,A1)    /* -672 (2A0) */
BitMapScale(A0)        /* -678 (2A6) */
ScalerDiv(D0,D1,D2)    /* -684 (2AC) */
TextExtent(A1,A0,D0,A2) /* -690 (2B2) */
TextFit(A1,A0,D0,A2,A3,D1,D2,D3) /* -696 (2B8) */
GfxLookUp(A0)         /* -702 (2BE) */
VideoControl(A0,A1)    /* -708 (2C4) */
OpenMonitor(A1,D0)     /* -714 (2CA) */
CloseMonitor(A0)       /* -720 (2D0) */

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```

FindDisplayInfo(D0)      /* -726 (2D6) */
NextDisplayInfo(D0)     /* -732 (2DC) */
GetDisplayInfoData(A0,A1,D0,D1,D2) /* -756 (2F4) */
FontExtent(A0,A1)      /* -762 (2FA) */
ReadPixelLine8(A0,D0,D1,D2,A2,A1) /* -768 (300) */
WritePixelLine8(A0,D0,D1,D2,A2,A1) /* -774 (306) */
ReadPixelArray8(A0,D0,D1,D2,D3,A2,A1) /* -780 (30C) */
WritePixelArray8(A0,D0,D1,D2,D3,A2,A1) /* -786 (312) */
GetVPMoDeID(A0)        /* -792 (318) */
ModeNotAvailable(D0)   /* -798 (31E) */
WeighTAMatch(A0,A1,A2) /* -804 (324) */
EraseRect(A1,D0,D1,D2,D3) /* -810 (32A) */
ExtendFont(A0,A1)      /* -816 (330) */
StripFont(A0)          /* -822 (336) */
CalcIVG(A0,A1)         /* -828 (33C) */
AttachPalExtra(A0,A1)  /* -834 (342) */
ObtainBestPenA(A0,D1,D2,D3,A1) /* -840 (348) */
SetRGB32(A0,D0,D1,D2,D3) /* -852 (354) */
GetAPen(A0)            /* -858 (35A) */
GetBPen(A0)            /* -864 (360) */
GetDrMd(A0)            /* -870 (366) */
GetOutlinePen(A0)      /* -876 (36C) */
LoadRGB32(A0,A1)       /* -882 (372) */
SetChipRev(D0)         /* -888 (378) */
SetABPenDrMd(A1,D0,D1,D2) /* -894 (37E) */
GetRGB32(A0,D0,D1,A1)  /* -900 (384) */
AllocBitMap(D0,D1,D2,D3,A0) /* -918 (396) */
FreeBitMap(A0)         /* -924 (39C) */
GetExtSpriteA(A2,A1)   /* -930 (3A2) */
CoerceMode(A0,D0,D1)   /* -936 (3A8) */
ChangeVPBitMap(A0,A1,A2) /* -942 (3AE) */
ReleasePen(A0,D0)      /* -948 (3B4) */
ObtainPen(A0,D0,D1,D2,D3,D4) /* -954 (3BA) */
GetBitMapAttr(A0,D1)   /* -960 (3C0) */
AllocDBufInfo(A0)      /* -966 (3C6) */
FreeDBufInfo(A1)       /* -972 (3CC) */
SetOutlinePen(A0,D0)   /* -978 (3D2) */
SetWriteMask(A0,D0)   /* -984 (3D8) */
SetMaxPen(A0,D0)       /* -990 (3DE) */
SetRGB32CM(A0,D0,D1,D2,D3) /* -996 (3E4) */
ScrollRasterBF(A1,D0,D1,D2,D3,D4,D5) /* -1002 (3EA) */
FindColor(A3,D1,D2,D3,D4) /* -1008 (3F0) */
AllocSpriteDataA(A2,A1) /* -1020 (3FC) */
ChangeExtSpriteA(A0,A1,A2,A3) /* -1026 (402) */
FreeSpriteData(A2)     /* -1032 (408) */
SetRPAAttrSA(A0,A1)    /* -1038 (40E) */
GetRPAAttrSA(A0,A1)    /* -1044 (414) */
BestModeIDA(A0)        /* -1050 (41A) */
WriteChunkyPixels(A0,D0,D1,D2,D3,A2,D4) /* -1056 (420) */
ENDLIBRARY

```

1.271 gtlayout.m

```

LIBRARY gtlayoutbase /* informal notation */
  Lt_LevelWidth(A0,A1,A2,D0,D1,A3,A5,D2) /* -30 (1E) */

```



```

Lt_DeleteHandle(A0)          /* -36 (24) */
Lt_CreateHandle(A0,A1)       /* -42 (2A) */
Lt_CreateHandleTagList(A0,A1) /* -48 (30) */
Lt_Rebuild(A0,A1,A2,D0,D1)   /* -54 (36) */
Lt_HandleInput(A0,D0,A1,A2,A3) /* -60 (3C) */
Lt_BeginRefresh(A0)          /* -66 (42) */
Lt_EndRefresh(A0,D0)         /* -72 (48) */
Lt_GetAttributesA(A0,D0,A1)   /* -78 (4E) */
Lt_SetAttributesA(A0,D0,A1)   /* -84 (54) */
Lt_AddA(A0,D0,D1,D2,A1)      /* -90 (5A) */
Lt_NewA(A0,A1)               /* -96 (60) */
Lt_EndGroup(A0)              /* -102 (66) */
Lt_LayoutA(A0,A1,A2,D0,D1,D2,D3,A3) /* -108 (6C) */
Lt_LayoutMenusA(A0,A1,A2)     /* -114 (72) */
Lt_Fixed2String(D0,D1)        /* -120 (78) */
Lt_String2Fixed(A0)           /* -126 (7E) */
Lt_FixedMult(D0,D1)           /* -132 (84) */
Lt_LabelWidth(A0,A1)          /* -138 (8A) */
Lt_LabelChars(A0,A1)          /* -144 (90) */
Lt_LockWindow(A0)             /* -150 (96) */
Lt_UnlockWindow(A0)           /* -156 (9C) */
Lt_DeleteWindowLock(A0)       /* -162 (A2) */
Lt_ShowWindow(A0,A1)          /* -168 (A8) */
Lt_Activate(A0,D0)            /* -174 (AE) */
Lt_PressButton(A0,D0)         /* -180 (B4) */
Lt_GetCode(D0,D1,D2,A0)       /* -186 (BA) */
Lt_GetIMsg(A0)                /* -192 (C0) */
Lt_ReplyIMsg(A0)              /* -198 (C6) */
Lt_BuildA(A0,A1)              /* -204 (CC) */
Lt_RebuildTagList(A0,D0,A1)    /* -210 (D2) */
Lt_UpdateStrings(A0)           /* -216 (D8) */
Lt_DisposeMenu(A0)            /* -222 (DE) */
Lt_NewMenuTemplate(A0,A1,A2,A3,D0,D1) /* -228 (E4) */
Lt_NewMenuTagList(A0)         /* -234 (EA) */
Lt_MenuControlTagList(A0,A1,A2) /* -240 (F0) */
Lt_GetMenuItem(A0,D0)         /* -246 (F6) */
Lt_FindMenuCommand(A0,D0,D1,A1) /* -252 (FC) */
Lt_NewLevelWidth(A0,A1,A2,D0,D1,A3,D3,D2) /* -258 (102) */
ENDLIBRARY

```

1.272 gtx.m

```

LIBRARY gtxbase              /* informal notation */
GtX_TagInArray(D0,A0)        /* -30 (1E) */
GtX_SetTagData(D0,D1,A0)     /* -36 (24) */
GtX_GetNode(A0,D0)           /* -42 (2A) */
GtX_GetNodeNumber(A0,A1)     /* -48 (30) */
GtX_CountNodes(A0)           /* -54 (36) */
GtX_MoveNode(A0,A1,D0)       /* -60 (3C) */
GtX_IFFErrToStr(D0,D1)       /* -66 (42) */
GtX_GetHandleA(A0)           /* -72 (48) */
GtX_FreeHandle(A0)           /* -78 (4E) */
GtX_RefreshWindow(A0,A1,A2)   /* -84 (54) */
GtX_CreateGadgetA(A0,D0,A1,A2,A3) /* -90 (5A) */
GtX_RawToVanilla(A0,D0,D1)    /* -96 (60) */

```

```

GtX_GetIMsg(A0,A1)      /* -102 (66) */
GtX_ReplyIMsg(A0,A1)    /* -108 (6C) */
GtX_SetGadgetAttrsA(A0,A1,A2) /* -114 (72) */
GtX_DetachLabels(A0,A1) /* -120 (78) */
GtX_DrawBox(A0,D0,D1,D2,D3,A1,D4) /* -126 (7E) */
GtX_InitTextClass()     /* -132 (84) */
GtX_InitGetFileClass()  /* -138 (8A) */
GtX_SetHandleAttrsA(A0,A1) /* -144 (90) */
GtX_BeginRefresh(A0)    /* -150 (96) */
GtX_EndRefresh(A0,D0)   /* -156 (9C) */
Dum() /* -162 (A2) */
Dum() /* -168 (A8) */
Dum() /* -174 (AE) */
Dum() /* -180 (B4) */
Dum() /* -186 (BA) */
Dum() /* -192 (C0) */
Dum() /* -198 (C6) */
Dum() /* -204 (CC) */
Dum() /* -210 (D2) */
Dum() /* -216 (D8) */
Dum() /* -222 (DE) */
GtX_FreeWindows(A0,A1) /* -228 (E4) */
GtX_LoadGUIA(A0,A1,A2) /* -234 (EA) */
ENDLIBRARY

```

1.273 icon.m

```

LIBRARY iconbase /* informal notation */
GetIcon(A0,A1,A2) /* -42 (2A) */
PutIcon(A0,A1) /* -48 (30) */
FreeFreeList(A0) /* -54 (36) */
AddFreeList(A0,A1,A2) /* -72 (48) */
GetDiskObject(A0) /* -78 (4E) */
PutDiskObject(A0,A1) /* -84 (54) */
FreeDiskObject(A0) /* -90 (5A) */
FindToolType(A0,A1) /* -96 (60) */
MatchToolValue(A0,A1) /* -102 (66) */
BumpRevision(A0,A1) /* -108 (6C) */
GetDefDiskObject(D0) /* -120 (78) */
PutDefDiskObject(A0) /* -126 (7E) */
GetDiskObjectNew(A0) /* -132 (84) */
DeleteDiskObject(A0) /* -138 (8A) */
ENDLIBRARY

```

1.274 iff.m

```

LIBRARY iffbase /* informal notation */
Dum() /* -30 (1E) */
IfFL_CloseIFF(A1) /* -36 (24) */
IfFL_FindChunk(A1,D0) /* -42 (2A) */
IfFL_GetBMHD(A1) /* -48 (30) */
IfFL_GetColorTab(A1,A0) /* -54 (36) */

```

```

IfFL_DecodePic(A1,A0)      /* -60 (3C) */
IfFL_SaveBitMap(A0,A1,A2,D0) /* -66 (42) */
IfFL_SaveClip(A0,A1,A2,D0,D1,D2,D3,D4) /* -72 (48) */
IfFL_IFFError()           /* -78 (4E) */
IfFL_GetViewModes(A1)     /* -84 (54) */
Dum()                     /* -90 (5A) */
IfFL_ModifyFrame(A1,A0)   /* -96 (60) */
Dum()                     /* -102 (66) */
Dum()                     /* -108 (6C) */
Dum()                     /* -114 (72) */
IfFL_OpenIFF(A0,D0)       /* -120 (78) */
IfFL_PushChunk(A0,D0,D1)  /* -126 (7E) */
IfFL_PopChunk(A0)         /* -132 (84) */
IfFL_WriteChunkBytes(A0,A1,D0) /* -138 (8A) */
IfFL_CompressBlock(A0,A1,D0,D1) /* -144 (90) */
IfFL_DecompressBlock(A0,A1,D0,D1) /* -150 (96) */
ENDLIBRARY

```

1.275 iffpase.m

```

LIBRARY iffpasebase      /* informal notation */
AllocIFF()              /* -30 (1E) */
OpenIFF(A0,D0)          /* -36 (24) */
ParseIFF(A0,D0)         /* -42 (2A) */
CloseIFF(A0)            /* -48 (30) */
FreeIFF(A0)             /* -54 (36) */
ReadChunkBytes(A0,A1,D0) /* -60 (3C) */
WriteChunkBytes(A0,A1,D0) /* -66 (42) */
ReadChunkRecords(A0,A1,D0,D1) /* -72 (48) */
WriteChunkRecords(A0,A1,D0,D1) /* -78 (4E) */
PushChunk(A0,D0,D1,D2)  /* -84 (54) */
PopChunk(A0)            /* -90 (5A) */
EntryHandler(A0,D0,D1,D2,A1,A2) /* -102 (66) */
ExitHandler(A0,D0,D1,D2,A1,A2) /* -108 (6C) */
PropChunk(A0,D0,D1)     /* -114 (72) */
PropChunks(A0,A1,D0)    /* -120 (78) */
StopChunk(A0,D0,D1)     /* -126 (7E) */
StopChunks(A0,A1,D0)    /* -132 (84) */
CollectionChunk(A0,D0,D1) /* -138 (8A) */
CollectionChunks(A0,A1,D0) /* -144 (90) */
StopOnExit(A0,D0,D1)    /* -150 (96) */
FindProp(A0,D0,D1)      /* -156 (9C) */
FindCollection(A0,D0,D1) /* -162 (A2) */
FindPropContext(A0)     /* -168 (A8) */
CurrentChunk(A0)        /* -174 (AE) */
ParentChunk(A0)         /* -180 (B4) */
AllocLocalItem(D0,D1,D2,D3) /* -186 (BA) */
LocalItemData(A0)       /* -192 (C0) */
SetLocalItemPurge(A0,A1) /* -198 (C6) */
FreeLocalItem(A0)       /* -204 (CC) */
FindLocalItem(A0,D0,D1,D2) /* -210 (D2) */
StoreLocalItem(A0,A1,D0) /* -216 (D8) */
StoreItemInContext(A0,A1,A2) /* -222 (DE) */
InitIFF(A0,D0,A1)       /* -228 (E4) */
InitIFFasDOS(A0)        /* -234 (EA) */

```

```

InitIFFasClip(A0)      /* -240 (F0) */
OpenClipboard(D0)      /* -246 (F6) */
CloseClipboard(A0)     /* -252 (FC) */
GoodID(D0)             /* -258 (102) */
GoodType(D0)           /* -264 (108) */
IdtoStr(D0,A0)         /* -270 (10E) */
ENDLIBRARY

```

1.276 input.m

```

LIBRARY inputbase      /* informal notation */
  PeekQualifier()      /* -42 (2A) */
ENDLIBRARY

```

1.277 intuition.m

```

LIBRARY intuitionbase  /* informal notation */
  OpenIntuition()      /* -30 (1E) */
  Intuition(A0)        /* -36 (24) */
  AddGadget(A0,A1,D0)   /* -42 (2A) */
  ClearDMRequest(A0)    /* -48 (30) */
  ClearMenuStrip(A0)    /* -54 (36) */
  ClearPointer(A0)      /* -60 (3C) */
  CloseScreen(A0)       /* -66 (42) */
  CloseWindow(A0)       /* -72 (48) */
  CloseWorkBench()     /* -78 (4E) */
  CurrentTime(A0,A1)    /* -84 (54) */
  DisplayAlert(D0,A0,D1) /* -90 (5A) */
  DisplayBeep(A0)       /* -96 (60) */
  DoubleClick(D0,D1,D2,D3) /* -102 (66) */
  DrawBorder(A0,A1,D0,D1) /* -108 (6C) */
  DrawImage(A0,A1,D0,D1) /* -114 (72) */
  EndRequest(A0,A1)     /* -120 (78) */
  GetDefPrefs(A0,D0)    /* -126 (7E) */
  GetPrefs(A0,D0)       /* -132 (84) */
  InitRequester(A0)     /* -138 (8A) */
  ItemAddress(A0,D0)    /* -144 (90) */
  ModifyIDCMP(A0,D0)    /* -150 (96) */
  ModifyProp(A0,A1,A2,D0,D1,D2,D3,D4) /* -156 (9C) */
  MoveScreen(A0,D0,D1)  /* -162 (A2) */
  MoveWindow(A0,D0,D1)  /* -168 (A8) */
  OffGadget(A0,A1,A2)   /* -174 (AE) */
  OffMenu(A0,D0)        /* -180 (B4) */
  OnGadget(A0,A1,A2)    /* -186 (BA) */
  OnMenu(A0,D0)         /* -192 (C0) */
  OpenScreen(A0)        /* -198 (C6) */
  OpenWindow(A0)        /* -204 (CC) */
  OpenWorkBench()      /* -210 (D2) */
  PrintIText(A0,A1,D0,D1) /* -216 (D8) */
  RefreshGadgets(A0,A1,A2) /* -222 (DE) */
  RemoveGadget(A0,A1)   /* -228 (E4) */
  ReportMouse(D0,A0)    /* -234 (EA) */

```

```

Request(A0,A1)          /* -240 (F0) */
ScreenToBack(A0)        /* -246 (F6) */
ScreenToFront(A0)       /* -252 (FC) */
SetDMRequest(A0,A1)     /* -258 (102) */
SetMenuStrip(A0,A1)     /* -264 (108) */
SetPointer(A0,A1,D0,D1,D2,D3) /* -270 (10E) */
SetWindowTitles(A0,A1,A2) /* -276 (114) */
ShowTitle(A0,D0)        /* -282 (11A) */
SizeWindow(A0,D0,D1)    /* -288 (120) */
ViewAddress()           /* -294 (126) */
ViewportAddress(A0)     /* -300 (12C) */
WindowToBack(A0)        /* -306 (132) */
WindowToFront(A0)       /* -312 (138) */
WindowLimits(A0,D0,D1,D2,D3) /* -318 (13E) */
SetPrefs(A0,D0,D1)      /* -324 (144) */
IntuiTextLength(A0)     /* -330 (14A) */
WbenchToBack()          /* -336 (150) */
WbenchToFront()         /* -342 (156) */
AutoRequest(A0,A1,A2,A3,D0,D1,D2,D3) /* -348 (15C) */
BeginRefresh(A0)        /* -354 (162) */
BuildSysRequest(A0,A1,A2,A3,D0,D1,D2) /* -360 (168) */
EndRefresh(A0,D0)       /* -366 (16E) */
FreeSysRequest(A0)      /* -372 (174) */
MakeScreen(A0)          /* -378 (17A) */
RemakeDisplay()         /* -384 (180) */
RethinkDisplay()        /* -390 (186) */
AllocRemember(A0,D0,D1) /* -396 (18C) */
AlohaWorkbench(A0)      /* -402 (192) */
FreeRemember(A0,D0)     /* -408 (198) */
LockIBase(D0)           /* -414 (19E) */
UnlockIBase(A0)         /* -420 (1A4) */
GetScreenData(A0,D0,D1,A1) /* -426 (1AA) */
RefreshGList(A0,A1,A2,D0) /* -432 (1B0) */
AddGList(A0,A1,D0,D1,A2) /* -438 (1B6) */
RemoveGList(A0,A1,D0)   /* -444 (1BC) */
ActivateWindow(A0)      /* -450 (1C2) */
RefreshWindowFrame(A0)  /* -456 (1C8) */
ActivateGadget(A0,A1,A2) /* -462 (1CE) */
NewModifyProp(A0,A1,A2,D0,D1,D2,D3,D4,D5) /* -468 (1D4) */
QueryOverscan(A0,A1,D0) /* -474 (1DA) */
MoveWindowInFrontOf(A0,A1) /* -480 (1E0) */
ChangeWindowBox(A0,D0,D1,D2,D3) /* -486 (1E6) */
SetEditHook(A0)        /* -492 (1EC) */
SetMouseQueue(A0,D0)   /* -498 (1F2) */
ZipWindow(A0)          /* -504 (1F8) */
LockPubScreen(A0)      /* -510 (1FE) */
UnlockPubScreen(A0,A1) /* -516 (204) */
LockPubScreenList()    /* -522 (20A) */
UnlockPubScreenList()  /* -528 (210) */
NextPubScreen(A0,A1)   /* -534 (216) */
SetDefaultPubScreen(A0) /* -540 (21C) */
SetPubScreenModes(D0)  /* -546 (222) */
PubScreenStatus(A0,D0) /* -552 (228) */
ObtainGIRPort(A0)      /* -558 (22E) */
ReleaseGIRPort(A0)     /* -564 (234) */
GadgetMouse(A0,A1,A2)  /* -570 (23A) */
GetDefaultPubScreen(A0) /* -582 (246) */

```

```

EasyRequestArgs (A0,A1,A2,A3)      /* -588 (24C) */
BuildEasyRequestArgs (A0,A1,D0,A3) /* -594 (252) */
SysReqHandler (A0,A1,D0)           /* -600 (258) */
OpenWindowTagList (A0,A1)          /* -606 (25E) */
OpenScreenTagList (A0,A1)          /* -612 (264) */
DrawImageState (A0,A1,D0,D1,D2,A2) /* -618 (26A) */
PointInImage (D0,A0)               /* -624 (270) */
EraseImage (A0,A1,D0,D1)           /* -630 (276) */
NewObjectA (A0,A1,A2)              /* -636 (27C) */
DisposeObject (A0)                 /* -642 (282) */
SetAttrsA (A0,A1)                  /* -648 (288) */
GetAttr (D0,A0,A1)                 /* -654 (28E) */
SetGadgetAttrsA (A0,A1,A2,A3)      /* -660 (294) */
NextObject (A0)                    /* -666 (29A) */
MakeClass (A0,A1,A2,D0,D1)         /* -678 (2A6) */
AddClass (A0)                      /* -684 (2AC) */
GetScreenDrawInfo (A0)             /* -690 (2B2) */
FreeScreenDrawInfo (A0,A1)         /* -696 (2B8) */
ResetMenuStrip (A0,A1)             /* -702 (2BE) */
RemoveClass (A0)                   /* -708 (2C4) */
FreeClass (A0)                     /* -714 (2CA) */
AllocScreenBuffer (A0,A1,D0)       /* -768 (300) */
FreeScreenBuffer (A0,A1)           /* -774 (306) */
ChangeScreenBuffer (A0,A1)         /* -780 (30C) */
ScreenDepth (A0,D0,A1)             /* -786 (312) */
ScreenPosition (A0,D0,D1,D2,D3,D4) /* -792 (318) */
ScrollWindowRaster (A1,D0,D1,D2,D3,D4,D5) /* -798 (31E) */
LendMenus (A0,A1)                  /* -804 (324) */
DoGadgetMethodA (A0,A1,A2,A3)      /* -810 (32A) */
SetWindowPointerA (A0,A1)          /* -816 (330) */
TimedDisplayAlert (D0,A0,D1,A1)    /* -822 (336) */
HelpControl (A0,D0)                /* -828 (33C) */
ENDLIBRARY

```

1.278 keymap.m

```

LIBRARY keymapbase                 /* informal notation */
SetKeyMapDefault (A0)              /* -30 (1E) */
AskKeyMapDefault ()                /* -36 (24) */
MapRawKey (A0,A1,D1,A2)            /* -42 (2A) */
MapANSI (A0,D0,A1,D1,A2)           /* -48 (30) */
ENDLIBRARY

```

1.279 layers.m

```

LIBRARY layersbase                 /* informal notation */
InitLayers (A0)                    /* -30 (1E) */
CreateUpfrontLayer (A0,A1,D0,D1,D2,D3,D4,A2) /* -36 (24) */
CreateBehindLayer (A0,A1,D0,D1,D2,D3,D4,A2) /* -42 (2A) */
UpfrontLayer (A0,A1)               /* -48 (30) */
BehindLayer (A0,A1)                /* -54 (36) */
MoveLayer (A0,A1,D0,D1)            /* -60 (3C) */

```

```

SizeLayer(A0,A1,D0,D1)      /* -66 (42) */
ScrollLayer(A0,A1,D0,D1)    /* -72 (48) */
BeginUpdate(A0)             /* -78 (4E) */
EndUpdate(A0,D0)            /* -84 (54) */
DeleteLayer(A0,A1)          /* -90 (5A) */
LockLayer(A0,A1)            /* -96 (60) */
UnlockLayer(A0)             /* -102 (66) */
LockLayers(A0)              /* -108 (6C) */
UnlockLayers(A0)            /* -114 (72) */
LockLayerInfo(A0)           /* -120 (78) */
SwapBitsRastPortClipRect(A0,A1) /* -126 (7E) */
WhichLayer(A0,D0,D1)        /* -132 (84) */
UnlockLayerInfo(A0)         /* -138 (8A) */
NewLayerInfo()              /* -144 (90) */
DisposeLayerInfo(A0)        /* -150 (96) */
FattenLayerInfo(A0)         /* -156 (9C) */
ThinLayerInfo(A0)           /* -162 (A2) */
MoveLayerInFrontOf(A0,A1)   /* -168 (A8) */
InstallClipRegion(A0,A1)    /* -174 (AE) */
MoveSizeLayer(A0,D0,D1,D2,D3) /* -180 (B4) */
CreateUpfrontHookLayer(A0,A1,D0,D1,D2,D3,D4,A3,A2) /* -186 (BA) */
CreateBehindHookLayer(A0,A1,D0,D1,D2,D3,D4,A3,A2) /* -192 (C0) */
InstallLayerHook(A0,A1)     /* -198 (C6) */
InstallLayerInfoHook(A0,A1) /* -204 (CC) */
SortLayerCR(A0,D0,D1)       /* -210 (D2) */
DoHookClipRects(A0,A1,A2)   /* -216 (D8) */
ENDLIBRARY

```

1.280 locale.m

```

LIBRARY localebase          /* informal notation */
CloseCatalog(A0)            /* -36 (24) */
CloseLocale(A0)             /* -42 (2A) */
ConvToLower(A0,D0)          /* -48 (30) */
ConvToUpper(A0,D0)          /* -54 (36) */
FormatDate(A0,A1,A2,A3)     /* -60 (3C) */
FormatString(A0,A1,A2,A3)   /* -66 (42) */
GetCatalogStr(A0,D0,A1)     /* -72 (48) */
GetLocaleStr(A0,D0)         /* -78 (4E) */
IsAlNum(A0,D0)              /* -84 (54) */
IsAlpha(A0,D0)              /* -90 (5A) */
IsCntrl(A0,D0)              /* -96 (60) */
IsDigit(A0,D0)              /* -102 (66) */
IsGraph(A0,D0)              /* -108 (6C) */
IsLower(A0,D0)              /* -114 (72) */
IsPrint(A0,D0)              /* -120 (78) */
IsPunct(A0,D0)              /* -126 (7E) */
IsSpace(A0,D0)              /* -132 (84) */
IsUpper(A0,D0)              /* -138 (8A) */
IsXDigit(A0,D0)             /* -144 (90) */
OpenCatalogA(A0,A1,A2)      /* -150 (96) */
OpenLocale(A0)              /* -156 (9C) */
ParseDate(A0,A1,A2,A3)      /* -162 (A2) */
StrConvert(A0,A1,A2,D0,D1)  /* -174 (AE) */
StrnCmp(A0,A1,A2,D0,D1)    /* -180 (B4) */

```

ENDLIBRARY

1.281 lowlevel.m

```

LIBRARY lowlevelbase          /* informal notation */
  ReadJoyPort (D0)           /* -30 (1E) */
  GetLanguageSelection ()     /* -36 (24) */
  GetKey ()                  /* -48 (30) */
  QueryKeys (A0,D1)          /* -54 (36) */
  AddKBInt (A0,A1)           /* -60 (3C) */
  RemKBInt (A1)              /* -66 (42) */
  SystemControlA (A1)        /* -72 (48) */
  AddTimerInt (A0,A1)        /* -78 (4E) */
  RemTimerInt (A1)           /* -84 (54) */
  StopTimerInt (A1)          /* -90 (5A) */
  StartTimerInt (A1,D0,D1)   /* -96 (60) */
  ElapsedTime (A0)           /* -102 (66) */
  AddVBlankInt (A0,A1)       /* -108 (6C) */
  RemVBlankInt (A1)          /* -114 (72) */
  SetJoyPortAttrsA (D0,A1)   /* -132 (84) */
ENDLIBRARY

```

1.282 mathffp.m

```

LIBRARY mathbase             /* informal notation */
  SpFix (D0)                 /* -30 (1E) */
  SpFlt (D0)                 /* -36 (24) */
  SpCmp (D1,D0)              /* -42 (2A) */
  SpTst (D1)                 /* -48 (30) */
  SpAbs (D0)                 /* -54 (36) */
  SpNeg (D0)                 /* -60 (3C) */
  SpAdd (D1,D0)              /* -66 (42) */
  SpSub (D1,D0)              /* -72 (48) */
  SpMul (D1,D0)              /* -78 (4E) */
  SpDiv (D1,D0)              /* -84 (54) */
  SpFloor (D0)               /* -90 (5A) */
  SpCeil (D0)                /* -96 (60) */
ENDLIBRARY

```

1.283 mathieeedoubbas.m

```

LIBRARY mathieeedoubbasbase  /* informal notation */
  IeeeDPFix (D0,D1)          /* -30 (1E) */
  IeeeDPFlt (D0)             /* -36 (24) */
  IeeeDPCmp (D0,D1,D2,D3)    /* -42 (2A) */
  IeeeDPTst (D0,D1)          /* -48 (30) */
  IeeeDPAbs (D0,D1)          /* -54 (36) */
  IeeeDPNeg (D0,D1)          /* -60 (3C) */
  IeeeDPAdd (D0,D1,D2,D3)    /* -66 (42) */
  IeeeDPSub (D0,D1,D2,D3)    /* -72 (48) */

```

```

IeeeDPMul (D0,D1,D2,D3)      /* -78 (4E) */
IeeeDPDiv (D0,D1,D2,D3)      /* -84 (54) */
IeeeDPFloor (D0,D1)          /* -90 (5A) */
IeeeDPCeil (D0,D1)           /* -96 (60) */
ENDLIBRARY

```

1.284 mathieeedoubtrans.m

```

LIBRARY mathieeedoubtransbase /* informal notation */
IeeeDPAtan (D0,D1)           /* -30 (1E) */
IeeeDPSin (D0,D1)            /* -36 (24) */
IeeeDPCos (D0,D1)            /* -42 (2A) */
IeeeDPTan (D0,D1)            /* -48 (30) */
IeeeDPSincos (A0,D0,D1)      /* -54 (36) */
IeeeDPSinh (D0,D1)           /* -60 (3C) */
IeeeDPCosh (D0,D1)           /* -66 (42) */
IeeeDPTanh (D0,D1)           /* -72 (48) */
IeeeDPExp (D0,D1)            /* -78 (4E) */
IeeeDPLog (D0,D1)            /* -84 (54) */
IeeeDPPow (D2,D3,D0,D1)      /* -90 (5A) */
IeeeDPSqrt (D0,D1)           /* -96 (60) */
IeeeDPTieee (D0,D1)          /* -102 (66) */
IeeeDPFieee (D0)             /* -108 (6C) */
IeeeDPAsin (D0,D1)           /* -114 (72) */
IeeeDPAcos (D0,D1)           /* -120 (78) */
IeeeDPLog10 (D0,D1)          /* -126 (7E) */
ENDLIBRARY

```

1.285 mathieeesingbas.m

```

LIBRARY mathieeesingbasbase /* informal notation */
IeeeSPFix (D0)               /* -30 (1E) */
IeeeSPFlt (D0)               /* -36 (24) */
IeeeSPCmp (D0,D1)            /* -42 (2A) */
IeeeSPTst (D0)               /* -48 (30) */
IeeeSPAbs (D0)               /* -54 (36) */
IeeeSPNeg (D0)               /* -60 (3C) */
IeeeSPAdd (D0,D1)            /* -66 (42) */
IeeeSPSub (D0,D1)            /* -72 (48) */
IeeeSPMul (D0,D1)            /* -78 (4E) */
IeeeSPDiv (D0,D1)            /* -84 (54) */
IeeeSPFloor (D0)             /* -90 (5A) */
IeeeSPCeil (D0)              /* -96 (60) */
ENDLIBRARY

```

1.286 mathieeesingtrans.m

```

LIBRARY mathieeesingtransbase /* informal notation */
IeeeSPAtan (D0)              /* -30 (1E) */
IeeeSPSin (D0)               /* -36 (24) */

```

```

IeeeSPCos(D0)      /* -42 (2A) */
IeeeSPTan(D0)      /* -48 (30) */
IeeeSPSincos(A0,D0) /* -54 (36) */
IeeeSPSinh(D0)     /* -60 (3C) */
IeeeSPCosh(D0)     /* -66 (42) */
IeeeSPTanh(D0)     /* -72 (48) */
IeeeSPExp(D0)      /* -78 (4E) */
IeeeSPLog(D0)      /* -84 (54) */
IeeeSPPow(D1,D0)   /* -90 (5A) */
IeeeSPSqrt(D0)     /* -96 (60) */
IeeeSPTieee(D0)    /* -102 (66) */
IeeeSPFieee(D0)    /* -108 (6C) */
IeeeSPAsin(D0)     /* -114 (72) */
IeeeSPAcos(D0)     /* -120 (78) */
IeeeSPLog10(D0)    /* -126 (7E) */
ENDLIBRARY

```

1.287 mathtrans.m

```

LIBRARY mathtransbase /* informal notation */
SpAtan(D0)           /* -30 (1E) */
SpSin(D0)            /* -36 (24) */
SpCos(D0)            /* -42 (2A) */
SpTan(D0)            /* -48 (30) */
SpSincos(D1,D0)      /* -54 (36) */
SpSinh(D0)           /* -60 (3C) */
SpCosh(D0)           /* -66 (42) */
SpTanh(D0)           /* -72 (48) */
SpExp(D0)            /* -78 (4E) */
SpLog(D0)            /* -84 (54) */
SpPow(D1,D0)         /* -90 (5A) */
SpSqrt(D0)           /* -96 (60) */
SpTieee(D0)          /* -102 (66) */
SpFieee(D0)          /* -108 (6C) */
SpAsin(D0)           /* -114 (72) */
SpAcos(D0)           /* -120 (78) */
SpLog10(D0)          /* -126 (7E) */
ENDLIBRARY

```

1.288 midi.m

```

LIBRARY midibase /* informal notation */
LockMidiBase()   /* -30 (1E) */
UnlockMidiBase() /* -36 (24) */
CreateMSource(A0,A1) /* -42 (2A) */
DeleteMSource(A0) /* -48 (30) */
FindMSource(A0) /* -54 (36) */
CreateMDest(A0,A1) /* -60 (3C) */
DeleteMDest(A0) /* -66 (42) */
FindMDest(A0) /* -72 (48) */
CreateMRoute(A0,A1,A2) /* -78 (4E) */
ModifyMRoute(A0,A1) /* -84 (54) */

```

```

DeleteMRoute(A0)          /* -90 (5A) */
MrouteSource(A0,A1,A2)    /* -96 (60) */
MrouteDest(A0,A1,A2)     /* -102 (66) */
MroutePublic(A0,A1,A2)   /* -108 (6C) */
GetMidiMsg(A0)           /* -114 (72) */
PutMidiMsg(A0,A1)        /* -120 (78) */
FreeMidiMsg(A0)          /* -126 (7E) */
MidiMsgType(A0)          /* -132 (84) */
MidiMsgLength(A0)        /* -138 (8A) */
PutMidiStream(A0,A1,A2,D0,D1) /* -144 (90) */
LockMRoutes()            /* -150 (96) */
UnlockMRoutes()          /* -156 (9C) */
FlushMDest(A0)           /* -162 (A2) */
GetMidiPacket(A0)        /* -168 (A8) */
FreeMidiPacket(A0)       /* -174 (AE) */
SetDefaultMRouteInfo(A0,A1) /* -180 (B4) */
CreateMListSignal(D0)     /* -186 (BA) */
DeleteMListSignal(A0)     /* -192 (C0) */
ENDLIBRARY

```

1.289 muimaster.m

```

LIBRARY muimasterbase      /* informal notation */
Mui_NewObjectA(A0,A1)      /* -30 (1E) */
Mui_DisposeObject(A0)      /* -36 (24) */
Mui_RequestA(D0,D1,D2,A0,A1,A2,A3) /* -42 (2A) */
Mui_AllocAslRequest(D0,A0) /* -48 (30) */
Mui_AslRequest(A0,A1)      /* -54 (36) */
Mui_FreeAslRequest(A0)     /* -60 (3C) */
Mui_Error()                /* -66 (42) */
Mui_SetError(D0)           /* -72 (48) */
Mui_GetClass(A0)           /* -78 (4E) */
Mui_FreeClass(A0)          /* -84 (54) */
Mui_RequestIDCMP(A0,D0)    /* -90 (5A) */
Mui_RejectIDCMP(A0,D0)    /* -96 (60) */
Mui_Redraw(A0,D0)          /* -102 (66) */
Mui_CreateCustomClass(A0,A1,A2,D0,A3) /* -108 (6C) */
Mui_DeleteCustomClass(A0) /* -114 (72) */
Mui_MakeObjectA(D0,A0)     /* -120 (78) */
ENDLIBRARY

```

1.290 nofrag.m

```

LIBRARY nofragbase        /* informal notation */
GetMemoryChain(D0)        /* -30 (1E) */
AllocItem(A0,D0,D1)       /* -36 (24) */
FreeItem(A0,A1,D0)        /* -42 (2A) */
FreeMemoryChain(A0,D0)    /* -48 (30) */
AllocVecItem(A0,D0,D1)    /* -54 (36) */
FreeVecItem(A0,A1)        /* -60 (3C) */
ENDLIBRARY

```

1.291 nonvolatile.m

```
LIBRARY nvbase          /* informal notation */
  GetCopyNV(A0,A1,D1)    /* -30 (1E) */
  FreeNVData(A0)         /* -36 (24) */
  StoreNV(A0,A1,A2,D0,D1) /* -42 (2A) */
  DeleteNV(A0,A1,D1)     /* -48 (30) */
  GetNVInfo(D1)          /* -54 (36) */
  GetNVList(A0,D1)       /* -60 (3C) */
  SetNVProtection(A0,A1,D2,D1) /* -66 (42) */
ENDLIBRARY
```

1.292 powerpacker.m

```
LIBRARY ppbase          /* informal notation */
  PpLoadData(A0,D0,D1,A1,A2,A3) /* -30 (1E) */
  PpDecrunchBuffer(A0,A1,A2,D0) /* -36 (24) */
  PpCalcChecksum(A0)          /* -42 (2A) */
  PpCalcPasskey(A0)          /* -48 (30) */
  PpDecrypt(A0,D0,D1)        /* -54 (36) */
  PpGetPassword(A0,A1,D0,D1)  /* -60 (3C) */
  Dum()                      /* -66 (42) */
  Dum()                      /* -72 (48) */
  Dum()                      /* -78 (4E) */
  Dum()                      /* -84 (54) */
  Dum()                      /* -90 (5A) */
  PpAllocCrunchInfo(D0,D1,A0,A1) /* -96 (60) */
  PpFreeCrunchInfo(A0)        /* -102 (66) */
  PpCrunchBuffer(A0,A1,D0)    /* -108 (6C) */
  PpWriteDataHeader(D0,D1,D2,D3) /* -114 (72) */
  PpEnterPassword(A0,A1)      /* -120 (78) */
  Dum()                      /* -126 (7E) */
  PpErrorMessage(D0)         /* -132 (84) */
ENDLIBRARY
```

1.293 ramdrive.m

```
LIBRARY ramdrivedevice  /* informal notation */
  KillRAD0()            /* -42 (2A) */
  KillRAD(D0)           /* -48 (30) */
ENDLIBRARY
```

1.294 realtime.m

```
LIBRARY realtimebase    /* informal notation */
  LockRealTime(D0)       /* -30 (1E) */
  UnlockRealTime(A0)     /* -36 (24) */
  CreatePlayerA(A0)      /* -42 (2A) */
  DeletePlayer(A0)       /* -48 (30) */

```

```

SetPlayerAttrsA(A0,A1)      /* -54 (36) */
SetConductorState(A0,D0,D1) /* -60 (3C) */
ExternalSync(A0,D0,D1)     /* -66 (42) */
NextConductor(A0)          /* -72 (48) */
FindConductor(A0)          /* -78 (4E) */
GetPlayerAttrsA(A0,A1)     /* -84 (54) */
ENDLIBRARY

```

1.295 req.m

```

LIBRARY reqbase             /* informal notation */
Center(A0,D0,D1)           /* -30 (1E) */
SetSize(D0,D1)             /* -36 (24) */
SetLocation(D0,D1,D2)      /* -42 (2A) */
ReadLocation(D0,D1,D2)     /* -48 (30) */
ReqFormat(A0,A1,A2)        /* -54 (36) */
Dum()                      /* -60 (3C) */
Dum()                      /* -66 (42) */
Dum()                      /* -72 (48) */
Dum()                      /* -78 (4E) */
FileRequester(A0)          /* -84 (54) */
ColorRequester(D0)         /* -90 (5A) */
DrawBox(A0,D0,D1,D2,D3)    /* -96 (60) */
MakeButton(A0,A1,A2,D0,D1,D2) /* -102 (66) */
MakeScrollBar(A0,D0,D1,D2,D3) /* -108 (6C) */
PurgeFiles(A0)             /* -114 (72) */
Dum()                      /* -120 (78) */
MakeGadget(A0,A1,D0,D1)    /* -126 (7E) */
MakeString(A0,A1,A2,D0,D1,D2,D3) /* -132 (84) */
MakeProp(A0,D0,D1,D2)      /* -138 (8A) */
LinkGadget(A0,A1,A3,D0,D1) /* -144 (90) */
LinkStringGadget(A0,A1,A2,A3,D0,D1,D2,D3) /* -150 (96) */
LinkPropGadget(A0,A3,D0,D1,D2,D3,D4) /* -156 (9C) */
GetString(A0,A1,A2,D0,D1) /* -162 (A2) */
RealTimeScroll(A0)         /* -168 (A8) */
TextRequest(A0)            /* -174 (AE) */
GetLong(A0)                /* -180 (B4) */
RawKeyToAscii(D0,D1,A0)    /* -186 (BA) */
ExtendedColorRequester(A0) /* -192 (C0) */
NewGetString(A0)           /* -198 (C6) */
ENDLIBRARY

```

1.296 reqtools.m

```

LIBRARY reqtoolsbase       /* informal notation */
RtAllocRequestA(D0,A0)     /* -30 (1E) */
RtFreeRequest(A1)          /* -36 (24) */
RtFreeReqBuffer(A1)        /* -42 (2A) */
RtChangeReqAttrA(A1,A0)    /* -48 (30) */
RtFileRequestA(A1,A2,A3,A0) /* -54 (36) */
RtFreeFileList(A0)         /* -60 (3C) */
RtEZRequestA(A1,A2,A3,A4,A0) /* -66 (42) */

```

```

RtGetStringA(A1,D0,A2,A3,A0)      /* -72 (48) */
RtGetLongA(A1,A2,A3,A0)           /* -78 (4E) */
Dum()                             /* -84 (54) */
Dum()                             /* -90 (5A) */
RtFontRequestA(A1,A3,A0)          /* -96 (60) */
RtPaletteRequestA(A2,A3,A0)       /* -102 (66) */
RtReqHandlerA(A1,D0,A0)           /* -108 (6C) */
RtSetWaitPointer(A0)              /* -114 (72) */
RtGetVScreenSize(A0,A1,A2)        /* -120 (78) */
RtSetReqPosition(D0,A0,A1,A2)     /* -126 (7E) */
RtSpread(A0,A1,D0,D1,D2,D3)       /* -132 (84) */
RtScreenToFrontSafely(A0)         /* -138 (8A) */
RtScreenModeRequestA(A1,A3,A0)    /* -144 (90) */
RtCloseWindowSafely(A0)           /* -150 (96) */
RtLockWindow(A0)                  /* -156 (9C) */
RtUnlockWindow(A0,A1)             /* -162 (A2) */
RtLockPrefs()                     /* -168 (A8) */
RtUnlockPrefs()                   /* -174 (AE) */
ENDLIBRARY

```

1.297 rexsyslib.m

```

LIBRARY rexsysbase                /* informal notation */
CreateArgstring(A0,D0)            /* -126 (7E) */
DeleteArgstring(A0)               /* -132 (84) */
LengthArgstring(A0)               /* -138 (8A) */
CreateRexxMsg(A0,A1,D0)           /* -144 (90) */
DeleteRexxMsg(A0)                 /* -150 (96) */
ClearRexxMsg(A0,D0)               /* -156 (9C) */
FillRexxMsg(A0,D0,D1)             /* -162 (A2) */
IsRexxMsg(A0)                     /* -168 (A8) */
LockRexxBase(D0)                  /* -450 (1C2) */
UnlockRexxBase(D0)                /* -456 (1C8) */
ENDLIBRARY

```

1.298 timer.m

```

LIBRARY timerbase                 /* informal notation */
AddTime(A0,A1)                    /* -42 (2A) */
SubTime(A0,A1)                    /* -48 (30) */
CmpTime(A0,A1)                    /* -54 (36) */
ReadEClock(A0)                    /* -60 (3C) */
GetSysTime(A0)                    /* -66 (42) */
ENDLIBRARY

```

1.299 translator.m

```

LIBRARY translatorbase            /* informal notation */
Translate(A0,D0,A1,D1)            /* -30 (1E) */
ENDLIBRARY

```

1.300 utility.m

```

LIBRARY utilitybase          /* informal notation */
  FindTagItem(D0,A0)          /* -30 (1E) */
  GetTagData(D0,D1,A0)        /* -36 (24) */
  PackBoolTags(D0,A0,A1)      /* -42 (2A) */
  NextTagItem(A0)             /* -48 (30) */
  FilterTagChanges(A0,A1,D0)   /* -54 (36) */
  MapTags(A0,A1,D0)           /* -60 (3C) */
  AllocateTagItems(D0)         /* -66 (42) */
  CloneTagItems(A0)           /* -72 (48) */
  FreeTagItems(A0)            /* -78 (4E) */
  RefreshTagItemClones(A0,A1)  /* -84 (54) */
  TagInArray(D0,A0)           /* -90 (5A) */
  FilterTagItems(A0,A1,D0)     /* -96 (60) */
  CallHookPkt(A0,A2,A1)       /* -102 (66) */
  Amiga2Date(D0,A0)           /* -120 (78) */
  Date2Amiga(A0)              /* -126 (7E) */
  CheckDate(A0)               /* -132 (84) */
  Smult32(D0,D1)              /* -138 (8A) */
  Umult32(D0,D1)              /* -144 (90) */
  SdivMod32(D0,D1)            /* -150 (96) */
  UdivMod32(D0,D1)            /* -156 (9C) */
  Stricmp(A0,A1)              /* -162 (A2) */
  Strnicmp(A0,A1,D0)          /* -168 (A8) */
  ToUpper(D0)                 /* -174 (AE) */
  ToLower(D0)                 /* -180 (B4) */
  ApplyTagChanges(A0,A1)       /* -186 (BA) */
  Smult64(D0,D1)              /* -198 (C6) */
  Umult64(D0,D1)              /* -204 (CC) */
  PackStructureTags(A0,A1,A2)  /* -210 (D2) */
  UnpackStructureTags(A0,A1,A2) /* -216 (D8) */
  AddNamedObject(A0,A1)        /* -222 (DE) */
  AllocNamedObjectA(A0,A1)      /* -228 (E4) */
  AttemptRemNamedObject(A0)     /* -234 (EA) */
  FindNamedObject(A0,A1,A2)     /* -240 (F0) */
  FreeNamedObject(A0)          /* -246 (F6) */
  NamedObjectName(A0)          /* -252 (FC) */
  ReleaseNamedObject(A0)        /* -258 (102) */
  RemNamedObject(A0,A1)         /* -264 (108) */
  GetUniqueID()                /* -270 (10E) */
ENDLIBRARY

```

1.301 wb.m

```

LIBRARY workbenchbase        /* informal notation */
  AddAppWindowA(D0,D1,A0,A1,A2) /* -48 (30) */
  RemoveAppWindow(A0)           /* -54 (36) */
  AddAppIconA(D0,D1,A0,A1,A2,A3,A4) /* -60 (3C) */
  RemoveAppIcon(A0)             /* -66 (42) */
  AddAppMenuItemA(D0,D1,A0,A1,A2) /* -72 (48) */
  RemoveAppMenuItem(A0)         /* -78 (4E) */
  WbInfo(A0,A1,A2)              /* -90 (5A) */
ENDLIBRARY

```

