

Note: This library for DOS/Win16 personality only. Use Family API for portability.

Note: osFree Macro Library provides macros for most of functions

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osFree Macro Library

Introduction

ALP/MASM compatible macro library for BIOS and DOS. Original MASM provides macros for BIOS and DOS interrupts as well as OS/2 and Windows macros. osFree Macro Library is a open source replacement of MASM macros. osFree macro library is for Microsoft MASM, IBM MASM, IBM ALP, JWASM and other MASM compatible assemblers. It has more type check and some BIOS bugs workaround. At the present time BIOS and DOS APIs are supported.

This library based on IBM 5150 Technical Reference #6322507 of Apr 1984, MACRO.DOC from MASM 5.x, Ralf Brown Interrupt list.

Functions, found in later BIOSes mostly not covered, but can be added in future. Main goal of osFree Macro Library is to provide support for Family API development. Macro names mostly constructed from MASM 5.x, MASM 6.x and ALP documentation.

Using macros

osFree Macro Library consist of BIOS.INC and DOS.INC. To use macros just include BIOS.INC, DOS.INC or both. For example:

```
INCLUDE BIOS.INC

@SetPage        ; Set default video page (zero page)
```

Files

osFree Macro Library provides two include files:

- BIOS.INC
- DOS.INC
- DPMI.INC

BIOS.INC contains macros for BIOS interrupts. DOS.INC contains macros for DOS interrupts.

BIOS.INC

Macro	Description
@SetMode	Set current video mode
@SetCurSz	Set cursor size
@SetCurPos	Set cursor position
@GetCur	Get cursor shape and position
@SetPage	Set active video page
@ScrollUp	Scroll screen area up
@ScrollDn	Scroll screen area down
@Scroll	Scroll sreen area up or down
@GetChAtr	Get char and attribute from screen
@PutChAtr	Put char and attribute to screen
@PutCh	Put char to screen
@SetPalet	Set pallete
@SetColor	Set border color
@SetDot	Set pixel dot on screen
@GetDot	Get pixel dot from screen
@WrtTTY	Write char in TTY mode
@VideoState	Get video state
@GetMode	Get video mode
@GetDisplay	Get display info
@GetVideoState	Get extended video state
@GetEGAInfo	Get EGA information
@Cls	Clear screen
@AuxInit	Initialize serial port
@AuxSendChar	Send char to serial port
@AuxRecieveChar	Recieve char from serial port
@AuxStatus	Get serial port status
@PrnPrint	Print char to printer
@PrnInit	Initialize printer
@PrnStatus	Get printer status
@KbdStatus	Get keyboard status
@CharIn	Input char from keyboard
@CharPeek	Peek char from keyboard buffer
@SetTime	Set time tick
@GetTime	Get time tick
@TapeOn	Turn tape motor on
@TapeOff	Turn tape motor off
@TapeRead	Read block from tape
@TapeWrite	Write block to tape
@Equipment	Get equipment list
@MemSize	Get memory size
@DskReset	Reset disk system
@DskStatus	Get last disk operation status
@DskRead	Read sector

Macro	Description
@DskWrite	Write sector
@DskVerify	Verify sector
@DskFormat	Format track

DOS.INC

Macro	Description

DPMI.INC

Macro	Description
IBM PC BIOS API	
Video I/O	**INT 10H**: 00H, 01H, 02H, 03H, 05H, 06H, 07H, 08H, 09H, 0AH, 0BH, 0CH, 0DH, 0EH, 0FH
Hardware info	INT 11H, INT 12H
Serial I/O	**INT 14H**: 00H, 01H, 02H, 03H
Tape I/O	**INT 15H**: 00H, 01H, 02H, 03H
Keyboard I/O	**INT 16H**: 00H, 01H, 02H
Printer I/O	**INT 17H**: 00H, 01H, 02H
Disk I/O	**INT 13H**: 00H, 01H, 02H, 03H, 04H, 05H
Date and Time	**INT 1AH**: 00H, 01H
osFree Macro Library	
Video I/O	@SetMode @SetCurSz @SetCurPos @GetCur @SetPage @ScrollUp @ScrollDn @Scroll @GetChAtr @PutChAtr @PutCh @SetPalet @SetColor @SetDot @GetDot @WrtTTY @VideoState @GetMode @GetDisplay @GetVideoState @GetEGAInfo @Cls
Hardware info	@Equipment @MemSize
Serial I/O	@AuxInit @AuxSendChar @AuxRecieveChar @AuxStatus
Tape I/O	@TapeOn @TapeOff @TapeRead @TapeWrite
Keyboard I/O	@KbdStatus @CharIn @CharPeek
Printer I/O	@PrnPrint @PrnInit @PrnStatus
Disk I/O	@DskReset @DskStatus @DskRead @DskWrite @DskVerify @DskFormat
Date and Time	@SetTime @GetTime
Mouse	@MouInit @MouShowPointer @MouStatus @MouSetPos @MouSetMickey @MouRegion
Memory manager	@ModBlok SET_BLOCK

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