 This is part of **Family API** which allow to create dual-os version of program runs under OS/2 and DOS

Note: This is legacy API call. It is recommended to use 32-bit equivalent

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DosSetFileInfo

This call sets attribute and extended attribute information for a file.

Syntax

```
DosSetFileInfo (FileHandle, FileInfoLevel, FileInfoBuf, FileInfoBufSize)
```

Parameters

- FileHandle (HFILE) - input : File handle.
- FileInfoLevel (USHORT) - input : Level of file information being set. A value of 1 or 2 can be specified. The structures described in FileInfoBuf indicate the information being set for each of these levels.
- FileInfoBuf (PBYTE) - input : Address of the storage area containing the structures for file information levels.
- FileInfoBufSize (USHORT) - input : Length of FileInfoBuf.

Level 1 Information

FileInfoBuf contains the following structure, to which information is specified in the following format:

filedate (FDATE) : Structure containing the date of file creation.

Bit	Description
15-9	Year, in binary, of file creation
8-5	Month, in binary, of file creation
4-0	Day, in binary, of file creation

filetime (FTIME) : Structure containing the time of file creation.

Bit	Description
15-11	Hours, in binary, of file creation
10-5	Minutes, in binary, of file creation
4-0	Seconds, in binary number of two-second increments, of file creation

fileaccessdate (FDATE) : Structure containing the date of last access. See FDATE in filedate.

fileaccesstime (FTIME) : Structure containing the time of last access. See FTIME in filetime.

writeaccessdate (FDATE) : Structure containing the date of last write. See FDATE in filedate.

writeaccesstime (FTIME) : Structure containing the time of last write. See FTIME in filetime.

filesize (ULONG) : File size.

filealloc (ULONG) : Allocated file size.

fileattrib (USHORT) : Attributes of the file, defined in DosSetFileMode.

Level 2 Information

FileInfoBuf contains an EAOP structure, which has the following format:

fpGEAList (PGEALIST) : Address of GEAList. GEAList is a packed array of variable length “get EA” structures, each containing an EA name and the length of the name.

fpFEAList (PFEALIST) : Address of FEAList. FEAList is a packed array of variable length “full EA” structures, each containing an EA name and its corresponding value, as well as the lengths of the name and the value.

oError (ULONG) : Offset into structure where error has occurred.

Level 2 sets a series of EA name/value pairs. On input, FileInfoBuf is an EAOP structure above. fpGEAList is ignored. fpFEAList points to a data area where the relevant FEA list is to be found. oError is ignored. Following is the format of the FEAList structure:

cbList (ULONG) : Length of the FEA list, including the length itself.

list (FEA) : List of FEA structures. An FEA structure has the following format:

Flags (BYTE) : Bit indicator describing the characteristics of the EA being defined.

Bit	Description
7	Critical EA
6-0	Reserved and must be set to zero

If bit 7 is set to 1, this indicates a critical EA. If bit 7 is 0, this means the EA is noncritical; that is, the EA is not essential to the intended use by an application of the file with which it is associated.

cbName (BYTE) : Length of EA ASCIIZ name, which does not include the null character.

cbValue (USHORT) : Length of EA value, which cannot exceed 64KB.

szName (PSZ) : Address of the ASCIIZ name of EA.

aValue (PSZ) : Address of the free-format value of EA.

'Note:' The szName and aValue fields are not included as part of header or include files. Because of their variable lengths, these entries must be built manually.

On output, fpGEAList is unchanged. fpFEAList is unchanged as is the area pointed to by fpFEAList. If an error occurred during the set, oError is the offset of the FEA where the error occurred. The API return code is the error code corresponding to the condition generating the error. If no error occurred, oError is undefined.

Return Code

- 0 NO_ERROR
- 1 ERROR_INVALID_FUNCTION
- 5 ERROR_ACCESS_DENIED
- 6 ERROR_INVALID_HANDLE
- 87 ERROR_INVALID_PARAMETER
- 122 ERROR_INSUFFICIENT_BUFFER
- 124 ERROR_INVALID_LEVEL
- 130 ERROR_DIRECT_ ACCESS _ HANDLE
- 254 ERROR _ INVALID _ EA _ NAME
- 255 ERROR _ EA _ LIST _ INCONSISTENT

Remarks

DosSetFileInfo is successful only when the file is opened for write access, with a deny-both sharing mode specified for access to the file by other processes. If the file is already opened with conflicting sharing rights, the call to DosOpen or DosOpen2 will fail.

A 0 value in the date and time components of a field does not change the field. For example, if both “last write date” and “last write time” are specified as 0 in the Level 1 information structure, then both attributes of the file are left unchanged. If either “last write date” or “last write time” are specified as non-zero, both attributes of the file are set to the new values.

The FAT file system supports modification of only the dates and times of the last write. Creation and last access dates and times are not affected.

The last modification date and time will get changed if the extended attributes are modified.

Family API Considerations

It is not possible to create a label with leading blank characters in DOS mode, because of restrictions on the previous Interrupt 21h function call (create an FCB type file), which must be used by FAPI.

Example Code

C Binding

```
typedef struct _FDATE {   /* fdate */

  unsigned day   : 5;     /* binary day for directory entry */
  unsigned month : 4;     /* binary month for directory entry */
  unsigned year  : 7;     /* binary year for directory entry */

} FDATE;

typedef struct _FTIME {       /* ftime */

  unsigned twosecs : 5;       /* binary number of two-second increments */
  unsigned minutes : 6;       /* binary number of minutes */
  unsigned hours   : 5;       /* binary number of hours */

} FTIME;

typedef struct _FILESTATUS {   /* fsts */

  FDATE  fdateCreation;        /* date of file creation */
  FTIME  ftimeCreation;        /* time of file creation */
  FDATE  fdateLastAccess;      /* date of last access */
  FTIME  ftimeLastAccess;      /* time of last access */
  FDATE  fdateLastWrite;       /* date of last write */
  FTIME  ftimeLastWrite;       /* time of last write */
  ULONG  cbFile;               /* file size (end of data) */
  ULONG  cbFileAlloc;          /* file allocated size */
  USHORT attrFile;             /* attributes of the file */

} FILESTATUS;

typedef struct _GEA {       /* gea */

  BYTE cbName;              /* name length not including NULL */
  CHAR szName[1];           /* attribute name */

} GEA;

typedef struct _GEALIST {   /* geal */

  ULONG  cbList;            /* total bytes of structure including full list */
  GEA list[1];              /* variable length GEA structures */

} GEALIST;

typedef struct _FEA {       /* fea */

  BYTE fEA;                 /* flags */
  BYTE cbName;              /* name length not including NULL */
```

```
  USHORT cbValue;         /* value length */

} FEA;

typedef struct _FEALIST {   /* feal */

  ULONG  cbList;          /* total bytes of structure including full list */
  FEA list[1];            /* variable length FEA structures */

} FEALIST;

typedef struct _EAOP {      /* eaop */

  PGEALIST fpGEAList;     /* general EA list */
  PFEALIST fpFEAList;     /* full EA list */
  ULONG  oError;

} EAOP;

#define INCL_DOSFILEMGR

USHORT  rc = DosSetFileInfo(FileHandle, FileInfoLevel, FileInfoBuf,
                            FileInfoBufSize);

HFILE           FileHandle;      /* File handle */
USHORT          FileInfoLevel;   /* File info data required */
PBYTE           FileInfoBuf;     /* File info buffer */
USHORT          FileInfoBufSize; /* File info buffer size */

USHORT          rc;              /* return code */
```

MASM Binding

```
FDATE   struc

  fdate_fs  dw  ?

FDATE   ends

FTIME   struc

  ftime_fs  dw  ?

FTIME   ends

FILESTATUS struc

  fsts_fdateCreation   dw (size FDATE)/2 dup (?) ;date of file creation
  fsts_ftimeCreation   dw (size FTIME)/2 dup (?) ;time of file creation
  fsts_fdateLastAccess dw (size FDATE)/2 dup (?) ;date of last access
```

```
  fsts_ftimeLastAccess dw (size FTIME)/2 dup (?) ;time of last access
  fsts_fdateLastWrite  dw (size FDATE)/2 dup (?) ;date of last write
  fsts_ftimeLastWrite  dw (size FTIME)/2 dup (?) ;time of last write
  fsts_cbFile          dd  ? ;file size (end of data)
  fsts_cbFileAlloc     dd  ? ;file allocated size
  fsts_attrFile        dw  ? ;attributes of the file

FILESTATUS ends

GEA    struc

  gea_cbName      db  ?          ;name length not including NULL
  gea_szName      db  1 dup (?)  ;attribute name

GEA    ends

GEALIST    struc

  geal_cbList     dd  ?      ;total bytes of structure including full list
  geal_list       db  size GEA * 1 dup (?) ;variable length GEA structures

GEALIST    ends

FEA   struc

  fea_fEA         db  ? ;flags
  fea_cbName      db  ? ;name length not including NULL
  fea_cbValue     dw  ? ;value length

FEA   ends

FEALIST struc

  feal_cbList     dd  ?      ;total bytes of structure including full list
  feal_list       db  size FEA * 1 dup (?) ;variable length FEA structures

FEALIST ends

EAOP    struc

  eaop_fpGEAList  dd  ? ;general EA list
  eaop_fpFEAList  dd  ? ;full EA list
  eaop_oError     dd  ? ;

EAOP    ends

EXTRN  DosSetFileInfo:FAR
INCL_DOSFILEMGR     EQU 1

PUSH   WORD    FileHandle      ;File handle
PUSH   WORD    FileInfoLevel   ;File info data required
```

```
PUSH@  OTHER   FileInfoBuf     ;File info buffer
PUSH   WORD    FileInfoBufSize ;File info buffer size
CALL   DosSetFileInfo

Returns WORD
```

Note

Text based on http://www.edm2.com/index.php/DosSetFileInfo_(FAPI)

Family API		
DOS	Process Manager	DosBeep DosExit DosSleep DosExecPgm
	File Manager	DosChDir DosChgFilePtr DosClose DosDelete DosDupHandle DosMkDir DosMove DosQCurDir DosQCurDisk DosSetFileMode DosOpen DosQFileInfo DosRead DosQFileMode DosQFSInfo DosQVerify DosRmDir DosSelectDisk DosFindClose DosFindFirst DosFindNext DosSetFileInfo DosSetVerify DosWrite DosFileLocks DosSetFHandState DosNewSize DosBufReset DosQFHandState DosSetFSinfo DosShutdown
	Memory Manager	DosFreeSeg DosSubAlloc DosSubFree DosSubSet DosAllocHuge DosAllocSeg DosReallocHuge DosReallocSeg DosGetHugeShift DosCreateCSAlias
	NLS	DosCaseMap DosGetCtryInfo DosGetDBCSEv DosSetCtryCode DosGetCollate DosGetMessage DosInsMessage DosPutMessage
	Date and Time	DosSetDateTime DosGetDateTime
	Devices	DosDevConfig DosDevIOCtl DosDevIOCtl2
	Signals	DosHoldSignal DosSetSigHandler
	Misc	BadDynLink DosGetEnv DosGetMachineMode DosGetVersion DosError DosErrClass DosSetVec
KBD		KbdCharIn KbdFlushBuffer KbdGetStatus KbdSetStatus KbdStringIn KbdPeek
VIO		VioGetBuf VioGetConfig VioGetCurPos VioGetCurType VioGetPhysBuf VioReadCellStr VioReadCharStr VioScrollUp VioScrollDn VioScrollLf VioScrollRt VioScrUnLock VioSetCurPos VioSetCurType VioSetMode VioGetMode VioShowBuf VioWrtCellStr VioWrtCharStr VioWrtCharStrAtt VioWrtNAttr VioWrtNCell VioWrtNChar VioWrtTTY VioScrLock VioPopUp
Tools		BIND
Modules		DOSCALLS.DLL VIOCALLS.DLL KBDCALLS.DLL MSG.DLL
Libraries		API.LIB OS2386.LIB FAPI.LIB DOSCALLS.LIB SUBCALLS.LIB

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