 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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Family API

Family API (FAPI) is a subset of Control Program API which can be used to write binary portable applications. Such applications can be run as on OS/2 as on DOS system without any modifications.

It is known 3 versions of original Family API 1.00, 1.10 and Mapper from MS-DOS 4.0.

Also exists side Family API implementation:

- FAMAPI by Jonathan de Boyne Pollard
- HX DOS Extender API by Andreas Grech
- os2api by Malcolm Smith

Versions up to 1.10 is a original OS/2 Family API. 1.20 and higher is a osFree extensions.

Dual OS applications

It is possible to write programs which will run on OS/2, DOS and Windows NT from one binary. Moreover, same source code can be used without any #ifdef and other preprocessor statements. Such portability achieved via Family API. Family API is OS/2 API emulation layer on top of DOS. OS/2 executable file is in NE (New Executable) file format. NE file consist of two parts:

1. Legacy DOS MZ EXE format part;
2. NE EXE part.

Using Family API MZ part of file used to provide loading and dynamic linking mechanism to load and link NE. Also Family API file contains emulation library which translates OS/2 API calls to DOS interrupt calls. So, same file can be executed as in OS/2 as in DOS. Windows NT contains OS2 Subsystem (os2ss.exe) which provides OS/2 API layer on top of Windows NT kernel. So, Family API allows to support 3 OSes using one binary file.

For current time only 16-bit Family API supported.

Writing portable tools

http://www.edm2.com/index.php/Hints_for_writing_simple_programs_for_both_OS/2_and_DOS

Documentation

Function reference

Compatibility

Feature	DOS 16-bit Real Mode	DOS 16-bit Protected Mode [1)]	OS/2 16-bit Protected Mode
Max memory	640KB	16MB [2)]	16MB
Virtual memory	No	No	1Gb
Multitasking	No	No	Yes
Multithreading	No	No	Yes
Long filenames	Yes [3)]	Yes [4)]	Yes [5)]
Extended attributes	Yes [6)]	Yes [7)]	Yes [8)]
App EXE name change	Yes [9)]	Yes [10)]	Yes

Remarks

For implementation details refer to Implementation details section.

Notes

This text based on http://www.edm2.com/index.php/Family_API

1)
Requires DPMI host with 16-bit client support
2)
Actually depends on DPMI host and current CPU
3) , 4)
Supported since version 1.20 Requires LFN driver under DOS or run in Windows 9x VDM.
5) , 8)
Starting from OS/2 1.??
6) , 7)
Under OS/2 BOX only
9) , 10)

Under DOS 3 and higher

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