

This is part of **Win16 API** which allow to create versions of program from one source code to run under OS/2 and Win16. Under OS/2 program can be running under Win-OS/2 if program is Windows NE executable, and with help on Windows Libraries for OS/2, if it is OS/2 NE executable. Here is a WLO to OS/2 API mapping draft

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# Win16 Personality: A Windows 3.x Compatibility Layer

The Win16 Personality is a project to create a free, open-source reimplementation of the 16-bit Microsoft Windows 3.x operating environment. It aims to provide compatibility with Windows 3.0, Windows 3.1, and Windows 3.11 for running classic Win16 applications.

## Project Goals

- Provide binary compatibility for a range of applications built for Windows 3.1/3.11.
- Reimplement core system components: KERNEL.EXE, USER.EXE, GDI.EXE.
- Serve as a research and educational platform for the classic Windows 3.x architecture.
- Integrate the Win16 environment as one of the “Personalities” within the osFree microkernel OS, and ensure it can also run on pure DOS.

## Current Status

The project is in early development (alpha stage). Current work focuses on the core 16-bit KERNEL and USER module. GDI is not yet implemented. The first practical milestone is to correctly run simple system utilities like WinVer, Clock and so on.

## Components and Applications

### Windows 3.x Application Clones

Clones of classic Windows 3.x applications are also being developed:

| Name | Description | Status |
|---|---|---|
| CALC (pure API) | Standard calculator for basic arithmetic. | |
| CALENDAR | Desktop calendar for viewing dates and appointments. | |
| CARDFILE | Electronic index card database for organizing information. | |
| CHARMAP (pure API) | Utility for viewing and inserting special characters. | |
| Clipboard Viewer (pure API) | Viewer for inspecting the current clipboard content. | **Done** |

| Name | Description | Status |
|---|---|---|
| Clock (pure API) | Analog or digital clock displaying the current time. | **Done** |
| Control Panel (pure API) | Control panel for adjusting system settings and hardware. | |
| | **Colors** Colors settings | |
| | **Fonts** Install or Remove fonts | |
| | **Ports** Configure serial and parallel ports | |
| | **Mouse** Mouse settings | |
| | **Desktop** Desktop settings | |
| | **Keyboard** Keyboard settings | |
| | **Printers** Printers settings | |
| | **International** regional settings | |
| | **Date/Time** Date and time | |
| | **Network** Network configuration | |
| DRWATSON | Diagnostic tool for capturing system information and errors. | |
| EXPAND | Utility for decompressing files from distribution disks. | **Done** |
| FASTOPEN | Utility for speeding up file access by caching directories. | **Done** |
| MPLAYER | Media Player for playing multimedia files. | |
| MSD | Microsoft Diagnostics tool for detailed hardware analysis. | |
| Notepad (pure API) | Simple text editor for plain text files. | **Done** |
| PACKAGER | Object Packager for embedding and linking documents (OLE). | |
| PBRUSH (ATL) | Paintbrush graphics editor for creating bitmap images. | |
| PIF Editor (pure API) | Editor for creating Program Information Files (PIFs) for DOS. | |
| PRINTMAN | Print Manager for print jobs and printer queues. | |
| Program Manager (pure API) | Main shell for organizing applications and documents into groups. | |
| REGEDIT | Registration Info Editor for the Windows registration database. | |
| Reversi (pure API) | The classic Othello game (discarded in Windows 3.1). | **Done** |
| SETUP | Windows Setup program for changing system configuration. | |
| SOL (pure API) | The classic Solitaire card game. | |
| Sound Recorder | Recorder for playing and editing sound files (.WAV). | |
| System Configuration Editor (pure API) | Editor for modifying system files (AUTOEXEC.BAT, CONFIG.SYS). | **Done** |
| Task Manager (pure API) | Manager for switching between running applications and tasks. | **Done** |
| WINFILE (pure API) | File Manager for managing files, directories, and disks. | |
| WINHELP (pure API) | Windows Help engine for displaying application help files. | |
| Minesweeper (pure API) | The classic Minesweeper puzzle game. | **Done** |
| WINSHELD | The Windows (Win) Shield is the Windows counterpart of the PM Shield. It is both an executable file and a dynamic link library (WINSHELD.EXE and WINSMSG.DLL, respectively). Win Shield serves a complementary purpose, maintaining Workplace Shell windowing-state information for its DOS session. | |
| Windows Version (pure API) | Dialog box displaying Windows version and copyright information. | **Done** |
| WRITE | Write word processor for creating formatted documents. | |

The main project source code is available in the repository: https://github.com/osfree-project/WIN16 osfree-project/WIN16

### Core System Modules & API

The reimplementation of the core Windows 3.x system modules and interfaces includes:

- BIOS API
- DOS API
- XMS API
- Task List API
- DOSX (DPMI) API
- LOGO API
- Screen grabbers API
- Task switcher API
- SYSTEM driver
- KEYBOARD driver
- MOUSE driver
- DISPLAY driver
- KERNEL module
- GDI module
- USER module
- SHELL module
- LZEXPAND module

## Related Pages

- Main osFree page
- Wikipedia article about this OS family

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