

WinFOSSIL v1.12 - Release Date 7/10/96

WinFOSSIL™ is a 32-bit FOSSIL (Fido-Opus-SeaDog Serial Interface Layer) driver for Windows 95. It enhances the performance of existing MS-DOS communication applications such as many bulletin board programs and terminal emulation packages. WinFOSSIL provides a fast path from the applications interface to the 32-bit communications drivers of Windows 95.

WinFOSSIL is produced by Woodruff Software Systems (FidoNet: 1:343/294). See the technical support section for further contact information.

Who should use WinFOSSIL:

If you use MS-DOS communications software under Windows and have it configured to use a FOSSIL driver such as X00, BNU or many of the other FOSSIL drivers available for MS-DOS.

Who should not use WinFOSSIL:

If you have not heard of the term FOSSIL and do not run MS-DOS-based communication applications under Windows 95 then WinFOSSIL probably is not for you.

Technical support is available through the following methods:

US Mail:

Woodruff Software Systems
1020 SW 10th St.
North Bend, WA 98045

E-Mail:

woodruff@halcyon.com

FidoNet/BBS:

Bryan Woodruff at 1:343/294 (+1 206 888 2407)

WWW:

<http://www.halcyon.com/woodruff/www>

The latest information is always posted on the WWW site. The latest version of WinFOSSIL can be obtained from the following locations:

FTP:

<ftp://ftp.halcyon.com/local/woodruff/WinFOSSIL>
<http://www.halcyon.com/woodruff/www>

BBS:

Woodruff Software Systems (North Bend, WA USA) +1 206 888 2407
Ballderdash! (Redmond, WA USA) +1 206 603 0354
GTEK BBS +1 601 452 0058 (telnet: bbs.gtek.com)

FidoNet:

FREQ magic name: WNFOSSIL.ZIP

1:343/294 Woodruff Software Systems - North Bend, WA USA

1:129/150 Wayfarer's Inn - Pittsburg, PA USA
1:130/306 Flightline BBS - Watuga, TX USA
1:134/282 Computers N' Stuff BBS - Calgary, Alberta CANADA
1:141/1295 Glass Onion - Ansonia, CT USA
1:167/234 Concord BBS Support/Reg Site Quebec CANADA
1:202/812 Cyberland BBS San Diego, CA USA
1:343/9 Ballderdash - Redmond, WA USA
2:256/135 Mininet - UK
2:293/735 Edge of Delight - Brussels, BELGIUM
2:293/9735 Edge of Delight (ISDN) - Brussels, BELGIUM

CompuServe:

WINUTIL forum, DL 9 (Windows 95)
PCCOM forum, DL2 (BBS utilities)
PCBBS, DL3 (Communication utilities)

WinFOSSIL has been tested with the following software packages:

- BG FAX 1.50
- Barren Realms Elite
- BinkleyTerm 2.59
- Blue Wave 3.11 (Max)
- CE XYZ 1.0
- D'Bridge 1.58
- Doorway 2.30
- Falcon's Eye
- Front Door 2.02
- Front Door 2.12
- InterMail 2.29
- Legend of the Red Dragon
- Lore
- Maximus 2.xx
- Maximus 3.0
- McMail
- PC Board 15.22
- ProBoard
- Remote Access 2.02
- SBBS
- Wildcat! 4.12

Compatibility notes:

FrontDoor:

Please note that the FDFIXW4W utility is **not** needed when using WinFOSSIL. WinFOSSIL v1.06 will automatically wake up the MS-DOS session when it finds activity on the serial device.

GSZ/DSZ:

These external protocols do not support FOSSIL communications and try using the COM hardware directly. In a virtual machine environment (such as Windows 95), the performance hit for such behavior is quite severe and is the same reason that WinFOSSIL is a virtual device driver rather (VxD) and out performs MS-DOS based FOSSIL drivers.

We recommend switching to an external protocol which supports the FOSSIL specification. CE-XYZ from Cutting Edge Computing (1:2240/176) is a very good package and operates well with WinFOSSIL.

CFOS:

WinFOSSIL v1.07 properly hands off FOSSIL functions to handlers for non-enabled ports. This allows other FOSSIL drivers (for example, CFOS) to operate cooperatively in the same system.

ANSI screens are displayed slowly

Cause:

The timeslice is being released when the application when the application does not expect it. For example, the application may implement an internal buffering scheme where it sends characters when there is room in the port's output buffer. Often, in this case, the port is found to be inactive and WinFOSSIL releases the timeslice when the application intends to send another character to the port.

Solution:

Disable the **"Release timeslice when no port activity detected"** option using the WinFOSSIL control panel.

Dropped carrier with Digiboard

Cause:

The DigiBoard Windows 95 driver drops the DTR when the port is closed. This is non-standard behavior for a Windows 95 VCOMM port driver. Digiboard is aware of the problem and will be providing drivers to fix this problem.

Solution:

To workaround this problem, enable the “Keep port open during MS-DOS session” option.

WinFOSSIL keeps the port open when I use echo ATH0 >COM1

Cause:

You have enabled the “Keep port open during MS-DOS session” and “Automatically open port when use detected” options enabled. The command processor uses the BIOS INT 14h to send this command and WinFOSSIL will open and keep the port open once this command is issued. If you use this command to hang up or clear the modem in an WINSTART.BAT file, you will find that no other application can open the COM port.

Solution:

Disable one of these options as appropriate or use a different method to hang up or initialize the modem.

Falcon's Eye drops carrier or fails to recognize FOSSIL

Cause:

Falcon's Eye expects the BBS software to pass the FOSSIL port "hot". When the port is not active, the requests are forwarded to the BIOS which in turn attempts to handle the COM port functions. This causes unexpected application behavior.

Solution:

Enable the "**Automatically open port when use detected**" option.

Revision History:

v1.12 FINAL

- n Verified and resolved an additional problem with multiple nodes. Special thanks to Wally Nickel for verifying the final change.

v1.12 BETA 2

- n Fixed a couple of problems introduced by the compiler.
- n Resolved problems with multiple nodes and active port list. The problem manifested itself as an error in VMM.
- n Added "Keep port open during MS-DOS session" option. This allows WinFOSSIL to cooperate with the DigiBoard drivers which drop the DTR when closing the port.
- n Removed the dependency on ComXAutoAssign in the SYSTEM.INI, the contention management settings are now handled automatically within WinFOSSIL. Note that WinFOSSIL assumes FOSSIL ports 0 through 3 map to COM1 to COM4.
- n Fixed a problem where DTR was always set high when the port was closed.

v1.12 BETA 1

- n WinFOSSIL will now automatically open the port when WNFOSCTL is used to lock or unlock the baud rate.

v1.11

- n Fixed timing problems encountered after handing off from FOSSIL-32 applications.
- n Fixed hanging condition when modem is not responsive.

v1.10

- n WinFOSSIL provides port handling support for 32-bit applications running under Windows 95. Applications that take advantage of this feature can operate under Windows 95 and hand off the FOSSIL port to other FOSSIL aware applications. For example, BinkleyTerm/32 with WinFOSSIL support enabled can now hand off the port to a 16-bit Maximus BBS package configured to use the same FOSSIL port. Authors: Contact Woodruff Software Systems for sample code if you are interested in supporting the FOSSIL extensions for Win32.
- n Fixed a problem with the write functions where a timeout occurs when the CTS is not asserted for 30ms. This would result in a 30 second timeout in various applications. Wildcat! 4 and L.O.R.D. experienced this problem in some system configurations.
- n Fixed a problem with applications that expected the FOSSIL port to remain open (HOT) when passed from an active BBS connection. When the port was not already open, this would result in the application using the BIOS routines instead of FOSSIL routines or reporting that the FOSSIL was not available or the carrier had been disconnected. This "auto-open" feature is enabled by default for NEW installations, UPGRADES will need to use the Control Panel application to enable this feature per port.

v1.09

- n Enabled finer control for time-slice management. This is managed per COM port and is configured using the control panel application.
- n Enabled port performance statistics. These statistics can be monitored using the Windows 95 System Monitor tool. Logging of these statistics is not enabled by default as it has caused other performance problems on slower machines. This option can be controlled using the WinFOSSIL control panel application

v1.08

- n Tracked down source of incompatibilities with TradeWars 2002 and other non-FOSSIL MS-DOS applications. The hardware state for the COM port is now properly reflected to these applications.
- n Added WNFOSCTL, a utility to lock and unlock the FOSSIL baud rates for FAX modems requiring fixed DTE rates for receipt of faxes.

v1.07

- n Made various performance enhancements related to improving throughput, reducing time-outs and CRC errors.
- n Buffers limits automatically set to enable send XOFF request (or drop RTS) at 7/8 receive full and send XON request (or raise RTS) when it empties to 1/8 full.
- n Hardware handshaking is now enabled by default for locked baud rates.
- n Fixed more sleepy applications. We have decided that Windows can handle time-slicing better than an application that is requesting to release it's time-slice while in the middle of a file transfer. WinFOSSIL filters the "release time-slice" requests and only allow these requests when there is no activity on the COM port. This prevents the MS-DOS session from sitting idle when there is really activity on the port. This was not a problem for MS-DOS based FOSSIL drivers because interrupts from the hardware device always kept the MS-DOS session busy while servicing the interrupt.
- n WinFOSSIL now supports up to 16 ports.

v1.06a

- n Corrected installation to modify \WINDOWS\SYSTEM.INI not \WINDOWS\SYSTEM\SYSTEM.INI.

v1.06

- n Fixed incompatibility with Blue Wave 3.11 (Max) mail reader door program.
- n Fixed a another timing issue with the transmitter flush.
- n Verified compatibility with Doorway 2.30.
- n Worked around a problem in the Windows 95 COMM driver which was the source of another stuck transmitter problem frequently reproduced with Remote Access..

v1.05a

- n Fixed another blocking situation with idle timeouts. This one seems to be the source of CRC errors with my system while running BinkleyTerm and/or Maximus. If these applications are configured to use multitasking features, the MS-DOS session running the BBS software was likely to sleep after it filled the transmit buffer. The receiving system would timeout waiting for the completion of the actual data block and throughput was hindered considerably.

v1.05

- n Fixed more FrontDoor and RemoteAccess problems. Performance was hindered by the constant "release time slice" signaling by these applications. The MS-DOS session will now be awakened whenever there is an event pending on the serial device.
- n Fixed peek character routine -- was returning a false status in some cases.
- n Added VFOSSIL support.
- n Fixed Ctrl-C/Ctrl-K handler.
- n Enhanced the help file.
- n Adjusted XON/XOFF limits to allow WinFOSSIL to leave control lines enabled with a higher buffer fill percentage.

V1.04

- n Fixed deadlocks with FrontDoor and InterMail.
- n Added support for enabling FOSSIL control on a port by port basis.

V1.03

- n Return proper codes on port reactivation, enhanced timeout handling for receive character routine.
- n Investigated reported issues regarding FrontDoor.

V1.02

- n Fixed performance and timeouts with Function AH=01h, WriteCharWait().

To enable WinFOSSIL for a particular port

1. Click [here](#) to start the WinFOSSIL Control Panel application.
2. Select the port identifier.
3. Check the box marked 'Enable FOSSIL'.
4. Adjust the settings for the port as required.
5. Click OK to save your settings.

Tips

- WinFOSSIL can enable up to 16 ports. The port identifier is a value from 0 to 15 and has a default mapping to COM1 to COM16 respectively. You may change any port identifier to map to different device name. For example, you may choose to map port ID 3 to LPT1 if you have a parallel modem attached to the printer port.
- WinFOSSIL is not enabled for any port by default, therefore, you must select the "Enable FOSSIL" option for each port you wish to have accessible by FOSSIL applications.

To configure options for a particular port

1. Select the port identifier.
2. Ensure that the check box is set for 'Enable FOSSIL'.
3. Enable or disable the following options as appropriate:
 - **Don't release timeslice while carrier detected**
This enables WinFOSSIL to refuse requests from an application to release timeslices a while the carrier is set. Some applications or protocol engines (such as CE-XYZ) release timeslices while servicing a file transfer and after the timeslice is released, the protocol engine never recovers. Enabling this option forces Windows to manage timeslice based on inactivity in the MS-DOS session instead. **Default is ON.**
 - **Release timeslice when no port activity detected**
This enables WinFOSSIL to manage the release of timeslices more aggressively by forcing the application to releasing the timeslice when it calls WinFOSSIL for the port status. This reduces overhead for the MS-DOS session but may cause problems with some applications when answering the phone (Intermail and FrontDoor may exhibit this behavior) or during file transfers. **Default is OFF.**
 - **Enable performance statistics monitoring**
This option enables the performance statistics registration with the system. This allows you to monitor various statistics regarding port activity using the Windows 95 System Monitor utility. Enabling this feature may cause system performance degradation on some slower machines. **Default is OFF.**
 - **Reflect COM port state to VCD when passing port**
This option enables WinFOSSIL to reflect the COM port state to the Windows 95 VCD (Virtual COMM Device) for non-FOSSIL applications such as TradeWars 2002 and other ill-behaved FOSSIL applications such as QuickBBS. Enabling this feature has no effect on ports driven by third party hardware drivers such as Microcom's PPM driver where they have not maintained compatibility with the Windows 95 serial device driver structures. **Default is ON.**
 - **Automatically open port when use detected**
This option enables WinFOSSIL to automatically open a FOSSIL port when an application uses a FOSSIL command without first opening the port. When this feature is not enabled, the application will communicate with the BIOS rather than the WinFOSSIL driver. The problem occurs when a DOOR program expects the FOSSIL port to be active or hot when passed from the BBS software. **Default is ON.**
 - **Keep port open during MS-DOS session**
This option enables WinFOSSIL to keep the FOSSIL port open as long as the MS-DOS session is active. Enable this option if you are using a system with Digiboard drivers and experience carrier drops when transferring control to a BBS from a mailer or from the BBS to external programs. **Default is OFF.**
1. Click OK to save your settings or select another port identifier to continue.

To install VFOSSIL with WinFOSSIL

1. If you have been installing VFOSSIL in your AUTOEXEC.BAT, you should move this operation into your main "BBS.BAT" file.
2. Install a line VFOS_IBM (or whatever is appropriate for your version of VFOSSIL) in your BBS.BAT before starting the mailer or BBS program.
3. Install a line VFOS_DEL (or again, whatever is appropriate for your version of VFOSSIL) in your BBS.BAT before exiting to the MS-DOS prompt for system shutdown.

Tips

- WinFOSSIL installs application hooks for each specific MS-DOS session. VFOSSIL has been known to incorrectly handle simultaneous access from multiple processes. WinFOSSIL resolves this problem by allowing this TSR to be installed independently in each MS-DOS session.

To use WinFOSSIL with non-standard IRQs and/or ports

WinFOSSIL does not require any special configuration information for non-standard IRQs and/or ports. If the port is properly configured for Windows 95, simply specifying the port name to WinFOSSIL is sufficient.

To uninstall WinFOSSIL

1. Click [here](#) to start the Add/Remove Control Panel application.
2. Select WinFOSSIL.
3. Click the Add/Remove button. Uninstallation will proceed.
4. Click OK when the process is completed.

To lock or unlock the baud rate from the command line:

WnFosCtl is a utility installed into the Windows directory which allows a batch file to lock or unlock the baud rate programmatically.

The syntax is:

```
WNFOSCTL <port ID> [<command> [options]]
```

where port ID is the identifier of the port (0 = COM1, 1 = COM2 and so on), and command is one of the following:

- UNLOCK - unlocks the port baud rate
- LOCK <baud> - locks the port baud rate to <baud>

To unlock the baud rate of COM2:

```
WNFOSCTL 1 UNLOCK
```

To lock the baud rate of COM1 to 115200:

```
WNFOSCTL 0 LOCK 115200
```

Registering WinFOSSIL:

WinFOSSIL is SHAREWARE, you are granted a 30-day trial period after which you are expected to pay the license fee if you continue to use this product. Please see LICENSE.TXT for further legal ramblings.

Automated registration is available through CompuServe's Shareware Registration (GO SWREG). WinFOSSIL's registration ID is 9117.

All other registrations must be handled through the mail service:

Woodruff Software Systems
1020 SW 10th St.
North Bend, WA 98045

License:

DEFINITION OF SHAREWARE

Shareware distribution gives users a chance to try software before buying it. If you try a Shareware program and continue using it, you are expected to register. Individual programs differ on details -- some request registration while others require it, some specify a maximum trial period. With registration, you get anything from the simple right to continue using the software to an updated program with printed manual.

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The \$15.00 US registration fee will license one copy for use on any one computer at any one time. You must treat this software just like a book. An example is that this software may be used by any number of people and may be freely moved from one computer location to another, so long as there is no possibility of it being used at one location while it's being used at another. Just as a book cannot be read by two different persons at the same time.

Additional charges:

- n 3.5" diskette with the latest version, US \$5.00.
- n International shipping, US \$2.00 each diskette
- n Washington state residents must add 8.2% sales tax.

Commercial users of WinFOSSIL must register and pay for their copies of WinFOSSIL within 30 days of first use or their license is withdrawn. Site-License arrangements may be made by contacting Woodruff Software Systems.

Anyone distributing WinFOSSIL for any kind of remuneration must first contact Woodruff Software Systems at the address below for authorization. This authorization will be automatically granted to distributors recognized by the (ASP) as adhering to its guidelines for shareware distributors, and such distributors may begin offering WinFOSSIL immediately (However Woodruff Software Systems must still be advised so that the distributor can be kept up-to-date with the latest version of WinFOSSIL.).

You are encouraged to pass a copy of WinFOSSIL along to your friends for evaluation. Please encourage them to register their copy if they find that they can use it. All registered users will receive a copy of the latest version of the WinFOSSIL system.

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We accept Visa and MasterCard. You may register via InterNET or FidoNET at your own risk. PGP encoded messages are accepted. PGP key is available as PGPKEY.TXT in the archive.

Marking this checkbox enables the port for WinFOSSIL control, if this is not enabled, WinFOSSIL lets all requests for this port pass-through to default handlers.

The port identifier is a value from 0 to 9 identifying the port to WinFOSSIL. This is also the port ID used by FOSSIL-aware applications.

This is the name of the port assigned to the identifier which allows you to map a device ID to a named device such as LPT1 or COM3. The default mapping is COMn+1 where n is the port ID. For example, port ID 0 maps to COM1 by default.

This is the size of the respective buffer for the selected port. Larger buffers may be required for higher baud rates. 16K is usually sufficient for all rates.

This setting optionally forces a port to a fixed (or locked) baud rate. When specified, FOSSIL-aware applications can not affect the baud rate of the specified port.

This list of options controls various aspects of WinFOSSIL for the selected port. For specific details on each of the options see the “How to ...” section of this help file.

