

SocketWatch: An Internet PC Clock synchronizer for Windows 95 and NT 4

SocketWatch by Locutus Codeware
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Disclaimers:

SocketWatch is an information client that gathers time information from public sources and sets your PC clock. The information presented by this program is only as accurate as the information provided by the time servers.

The users of this software agree to these conditions if the software is installed on their computers:

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SocketWatch is an SNTP client get accurate time information over Internet. If you are connected to Internet and want your PC clock to be as accurate as possible, SocketWatch is for you.

SocketWatch is not your father's pocketwatch, but is as indispensable to your connected PC running Windows 95.

In today's wired world, keeping an accurate clock is more important than ever for the personal computer. To know how accurate is that time critical information you got from the Web, to be sure which version of that file in your Windows 95 Briefcase is *the* latest, you need your computer, all the computers you use to be synchronized. The best way to do this is to synchronize your PC to the universal time signals available through Internet.

Timex DataLink users: you will **never** have to set your watch again. You surely remember your first response when you found out that you can set your watch from your PC (**Yeah! Right!**). Now you can do exactly that. Every time you update your data to your watch, you can let the PC send the time information to your watch. **Your watch will always be accurate.**

Why SocketWatch:

- SocketWatch will analyze its exhaustive list of time servers all over the world, and heuristically choose the best time server for you.
- SocketWatch works by monitoring your dial-up connections and setting the time once you are connected for any other purpose.
- 32-bit application. Does not conflict with other 32-bit applications using your modem.
- Integrated with Windows 95 time zone and daylight time features. Requires no further settings.
- Does not call long distance time signal numbers. Gets the time over Internet.
- Does not make unnecessary connections to your Internet Service Provider.
- Ideal if you already periodically connect to check/read your mail. Will piggyback to any network client operation. Works great with MS Exchange.
- Integrated with built-in Dial-up Networking. Will use your existing Dial-up Networking and TCP/IP settings. Requires no further settings.
- Silent background operation. Easy access to features via a system tray icon.

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Setting up SocketWatch is very easy.

Just unzip the contents to a folder, and start up the setup information file. This will create a proper folder for it to run from, copy the files to their proper places and create a shortcut to it in the startup folder.

To do this, first unzip the contents to a folder. Then, using the explorer:

- right click on swatch.inf (Setup information file)
- From the pop-up menu, choose install
- When the setup screen comes up, fill in your information

You can later uninstall SocketWatch via the Control Panel, Add/Remove programs applet.

The first time SocketWatch is run, it will present a setup dialog. It is very important that you fill in all the requested information. You can access this dialog later by right clicking the SocketWatch icon on the system tray.

Before you can run SocketWatch, you have to have an Internet connection with an ISP set up and going. It is also required that you use a Dial-up Networking connection setup for this connection. SocketWatch will only work if you are accessing Internet using the Windows 95 Dial-up Networking feature or if you have a direct network connection (via your office LAN for instance). SocketWatch will not work with third party PPP or SLIP software for remote Internet access.

If you have a direct connection to Internet, you can make SocketWatch ignore all dial-up parameters.

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Support for SocketWatch is provided online. Either send mail to:

support@locutuscodeware.com

or visit the Locutus Codeware web page:

<http://www.locutuscodeware.com>

You will find the latest version of SocketWatch and other Locutus Codeware products.

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SocketWatch is shareware. If you like the program and decide to use it, you must register it. Registering SocketWatch will entitle you to:

- **FREE ON-LINE SUPPORT, NOTIFICATION OF FIXES AND IMPROVEMENTS.**
- **ACCESS TO 40% MORE TIME SERVERS TO INCREASE THE CHANCE OF FINDING THE MOST SUITABLE TIME SERVER FOR YOUR LOCATION.**
- **ENABLE THE HIDE TRAY ICON OPTION**

Registration:

If you decide to use the product after a reasonable trial period, you **must** register and pay a licensing fee. Not doing so is in violation of international copyright laws.

Whether you decide to keep SocketWatch or not, it will be appreciated if you visit the Locutus Codeware web site at <http://www.locutuscodeware.com> and fill out the information form. This will not cost you anything, but will let us know who is using the product and your input will help plan for product updates and future products.

Licensing fee for SocketWatch is \$10 per copy:

Registering By Mail:

Payments can be in the form of a check or money order to:

Locutus Codeware
1886 W.Broadway, #303,
Vancouver,
BC V6J 1Y9
Canada

NOTE: Please make sure you include your e-mail address along with your payment. E-mail is the only method you will be contacted for support and product updates.

Registering Online

You can register SocketWatch online using a credit card. Just go to <http://www.locutuscodeware.com> and click on the Online Payment button.

Registration via CompuServe:

You can pay either amount via CompuServe software registration forum: GO SWREG
The registration ID for SocketWatch is: 7772

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A Winsock SNTP client for Windows 95 and NT 4

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Using SocketWatch is as painless as it gets with any software. Once you setup the program, you can almost forget about it and enjoy the accuracy of your PC clock. SocketWatch does not require you to do anything to update the clock unless you want to. The PC clock will be automatically updated when you connect to Internet for your regular use of e-mail, Web browsing or other on-line activities. As soon as it senses an Internet connection, SocketWatch will silently go and get the current time within a few seconds of your connection, and keep updating it as long as you are connected. It will even dial in itself if you choose to do so and you have not connected to Internet for a specified period.

With SocketWatch, you don't have to specify a time server at all. With its smart server selection process, it will use its depository of time servers to find the best time server for you. By also keeping a tab on how all the time servers are doing, you are guaranteed to access the time server with the fastest response, therefore the most accurate time information. If one of the favorable servers are slow or down, they give way to the next best. At every time set period, SocketWatch samples the 5 best rated servers and uses the one with the best score. It also re-evaluates the list of servers to use the 5 best, next time around.

You can interact with SocketWatch via its tray icon. The icon responds to left and right mouse clicks. Right click the mouse, and you will see a popup menu that gives you the option to synchronize your PC clock "now", open the properties window, or exit the program. You can also synchronize your clock by just double clicking on the SocketWatch tray icon.

The ToolTip (the small window that pops up when you hover your mouse over the SocketWatch icon) will show when the last time correction was made and how far your clock was out.

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SocketWatch communicates its status using the small icon on the taskbar tray.

SocketWatch icons:

 This icon is the “everything normal” icon. SocketWatch starts with this icon showing. After a successful time update, you will still see this icon.

 This icon looks very similar to the normal icon, but note the shaded clock face. You will see this icon when SocketWatch could not connect to any of the time servers it wanted. As the errors were not definitive, an error condition is not raised. SocketWatch will try again.

 SocketWatch has raised an error condition. There is either a definitive error that prevents accessing the time servers, or trying to connect to them has failed a number of times in sequence. The tooltip and the SocketWatch status page will have an explanation of the error.

 SocketWatch is busy connecting to the time servers.

 This icon indicates that today is a leap second day. Just before midnight today, there will be 1 extra, or 1 less seconds. See the SocketWatch status page for details.

SocketWatch Status dialog fields:

Time Server Status: This area shows the names of the time servers being tried, and after the clock is set, gives detailed information about the time server actually used for the time correction. The following information is provided.

- The time server name: this is the name of the time server used this time to synchronize the PC clock.
- Stratum: this indicates how many levels the server is away from the original time source. Stratum 1 servers are directly connected to the clock source, stratum 2 servers get their time from stratum 1 servers, and so forth.
- Precision: is the value indicating the precision of the clock used on the server.
- Reference clock: is the type of the clock used to synchronize the timer. For stratum 1 servers, this is the type of the actual reference clock. For others, this shows the IP address of the server they synchronize to. Some of the values you might see here are:
 - ATOM – atomic clock
 - PPS – precision pulse-per-second source
 - WWV – radio time signal call signs (WWVB, DCF77, etc.)
 - OMEG, LORC – radionavigation systems like LORAN-C and OMEGA, etc.
 - GPS, GOES – satellite time source
 - Etc.
- Roundtrip delay: is the time in seconds that was spent for the information to travel to the server and back. SocketWatch takes the network delay into consideration, but still, the shorter the delay, the more accurate the time correction
- Server Score: this is the overall score calculated for the server. The smaller this value, the better the server.
- Times used: indicates the number of times this particular server was used since the list was last reset.

Last Time Correction: This area shows when and for how much the PC clock was corrected

Connect Now: This button can be used to manually start a connection anytime you want. You can use this button to test whether you have all your settings correct. When you press this button, SocketWatch will dial-up in accordance with your selected Dial-Up Networking connection. If you are already connected using the **selected** Dial-up Networking connection, SocketWatch will just connect to the time servers to get the current time. If you are using a direct network connection, this button will cause WetSock to connect to the weather server and get the weather conditions.

Hide SocketWatch Tray Icon: Allows you to run SocketWatch in silent mode. Once you have SocketWatch going without any problems, you can turn the tray icon off to have it run completely in the background. It will be 100% unintrusive, except that your PC will keep accurate time.

Note: [This option is disabled in non-registered versions.](#)

Once this icon is enabled, to access the SocketWatch properties window, start a second copy of SocketWatch.

Exit Program: Quits SocketWatch.

Connection Settings dialog fields:

Use direct network connection: If you have a direct network connection to Internet, you may check this box. When checked, SocketWatch will not attempt to use a dial-up connection. If this box is checked, some of the scheduling parameters will be unavailable. If you are using a direct connection, only the “*When connected, check weather every xx hours*” parameter will be available and meaningful. SocketWatch will not check if your network connection is activated, nor will it attempt to initiate a dial-up connection, but it will directly attempt to access the weather server.

Dial-up Network Connection: The connection you want SocketWatch to monitor and use when connecting to Internet. Choose one of the connection names from the list. You must have created a Dial-up Network connection before you can use SocketWatch with a dial-up Internet connection.

If you are behind a firewall, you will have to get it configured to give free access to SocketWatch.

SocketWatch uses port 123.

If you have configured your firewall for use with the 1.x versions of SocketWatch, you will have to do it again the port used has been changed from 37 to 123.

Scheduling parameters:

You can schedule SocketWatch to either connect to Internet by itself, or let it ride the wave when you are surfing, or let it work piggybacked to any other periodic access to Internet; for example, checking your mail periodically.

Poll for network connection: This setting tells SocketWatch how often it should check whether you are connected to Internet via the selected Dial-up Networking connection. SocketWatch will check to see if you are connected to Internet, and will do a time update immediately. If you want to piggyback SocketWatch to a quick periodic operation like checking your mail, you should set this value to less than the time it takes your mailer to check your mail once the connection is established. Typically this would be less than 10 seconds.

If you want SocketWatch to receive information only while you are connected to Internet for longer periods for surfing, reading news etc., you may set the poll interval to a larger value

When connected, correct time: As soon as you have an Internet connection established using the selected Dial-up Networking connection, SocketWatch will update the weather information. After that, as long as you are connected, it will receive weather information periodically at the specified interval in this field. Setting this value to 0 will cause SocketWatch to do a time update only once each time you start a dial-up session.

Out of courtesy to our time suppliers, please do not try to update the time more frequently than you need.

Do not use SocketWatch as a tool to keep your connection alive. There are tools designed to do just that.

Dial-up your Internet connection: You may use this setting to have SocketWatch dial-up your Internet provider for you and update the time without depending on other programs to be using Internet. SocketWatch will connect to Internet using the Dial-up Networking connection you specified periodically, update the time and immediately hang-up. You may disable this feature by setting this value to 0.

Server timeout: This will set the timeout value for waiting the server to respond to a request. You should not need to change this value under normal conditions. If you are consistently getting timeout errors for a lot of servers, you may consider setting a higher value.

Time Servers:

In this version, you do not need to select a particular time server.

This version of SocketWatch automatically chooses the right time server for your location.

The usual method of selecting a suitable time server is to choose one that is geographically close to where you are. Contrary to popular belief, this is not so the time zones match. You can use any time server in the world as they all work on UTC. The real reason you want a server close by is to minimize the journey the time request and its answer takes to and back from the server. Internet being as complex as it is, it still is not for certain that the geographically close location is electronically closest. Also, the routing of any given message may change from day to day. To cover for all this, and still access the networkwise closest server, SocketWatch uses a smart algorithm that will score the servers in its database and will always use the top 5 performing servers. If a selected server is slow or down at any given time, it will give way to the server next in line, therefore guaranteeing the accuracy of the result.

SocketWatch has close to 100 public time servers in its database to choose the best from. On top of this exhaustive list, registered SocketWatch has access to 40% more servers to ensure accuracy.

If you select the **Use smart search**, SocketWatch will choose the best time server for you. If you deselect this box, SocketWatch will use whatever time server you enter in the time server field. You can enter the name or the IP address of your favorite time server.

The **Initialize Time Server List** button is provided so you can erase the scoring of the servers up to that minute, and start from scratch again. This button is provided in case the algorithm settles in on some servers that don't serve your purpose, or in case something goes wrong. You should use this button sparingly.

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Frequently Asked Questions:

I am behind a firewall, how do I make it work?

SocketWatch needs to access TCP port 123. Have your firewall set, so it gives free access to SocketWatch on port 123. Previous versions used port 37, so you will have to re-configure the firewall.

SocketWatch complains that it cannot find the file SVRAPI.DLL. Where do I find it?

SVRAPI.DLL is part of the Windows 95 networking subsystem. If that file is missing, it means you have not installed Windows 95 networking and are accessing Internet using a third party tool (i.e. Trumpet Winsock). SocketWatch **requires** you to use network protocols, and it will not work without them.

I registered and paid. Why am I not getting anything?

Support and information transfer, including copies of the program to be sent if necessary, is all done online. If you have not included your e-mail address with your payment or if you have not communicated electronically with Locutus Codeware, either via the web page or by e-mail, chances are I don't have an electronic address for you. Did you send me a message notifying your address change? Please drop me a note at registrar@locutuscodeware.com if you are feeling left out.

SocketWatch is setting the wrong time. It is always an hour or two off:

SocketWatch uses the system settings to find your time zone. Make sure you have selected the correct time zone using the Control Panel, Date/Time settings.

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