

TempElertUSB Operation Guide

V2.10 32/64 bit combo version Date: 10/01/2013



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1. Introduction

The TempElerUSB is designed to work in conjunction the dedicated software, running within Windows XP and Vista (32-bit versions only) and Windows 7/8 for both 32 or 64 bit versions. There are currently no versions of the software for Linux, Android, or Mac OS, and it does not run on Windows 98, Windows 2000 or Windows ME as these operating systems are no longer supported by Microsoft.

1.1 The TempElerUSB sensor

Blue LED indicates active status



The USB sensor device, shown at left, has an air port (slotted hole) for free air flow to detect the temperature and humidity of the ambient air, plus a blue LED status indicator which will be illuminated when the device is active.

Do not block the slotted hole or readings will be erroneous.

Always place the sensor in a location that provides air flow for what you wish to monitor. Not that in a room with light airflow, the higher the sensor is mounted in the free air, the more likely it will be able to detect an ambient air over temperature condition.

For server rooms and other equipment rooms that generate heat, mounting the sensor just above the equipment racks as shown below:



Our optional USB extender cable with adhesive mounting clips makes this sort of installation easy.

For installations inside server racks, where you wish to monitor the internal temperature of the rack enclosure, you can simply plug the TempElerUSB sensor into the front or rear USB port of any rack mounted computer, taking care to be sure the slotted air port is not obstructed. See below:

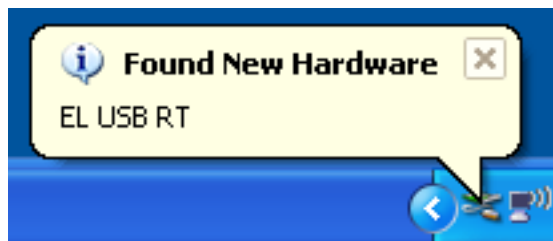


The TempElerUSB sensor can also be extended 150 feet (guaranteed) with a possible maximum of 300 feet (depending on cable quality) using our CAT5 network cable extender. A dedicated point to point cable is required to use this feature.

1.2 Driver less Device Installation

Insert the TempElerUSB device into your USB port, you will see the three step process of “Found New Hardware” wizard of Windows begin to automatically install the USB device driver. The device is recognized as “EL-USB-RT” on the computer.

It is an automatic three step process, which takes usually under 30 seconds, see the progress below:



Once that is completed, and your hardware is “installed and ready to use” you can then install the software from the CD ROM.

1.3 Software Installation

Insert the CD ROM provided into an optical drive. The CD Rom is set to autorun the installer, but depending on your machine settings, you may have to navigate to the root folder of the CD ROM and manually start the installer by double-clicking on it. Look for the file:

TempElerUSB64-setup.exe

NOTE: If you want to install the older 32 bit only version, the installer for it resides in a separate folder on the CDROM – simply navigate to the folder \32 bit version and double click on TempElerUSB-setup

The installer will by default install all software into the folder C:\Program Files\TempElerUSB

However; you can change the drive and/or folder if you wish.

The installer will also place a shortcut to TempElerUSB into the startup folder so that the program is started automatically each time the computer boots up. It will run unobtrusively in the systems tray whether connected to the USB device or not. The program does not log any data of course when the USB sensor device is disconnected.

2. Operation

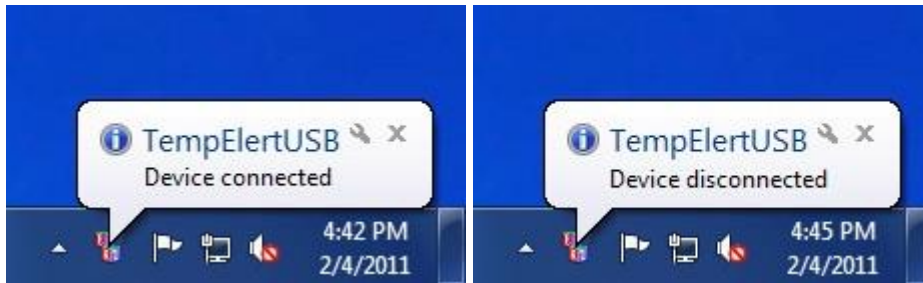
2.1 Basic software interface

After installation, a new icon (two colored blocks saying the letters **ELRT**) should be visible in the notification area of the taskbar, normally in the bottom right corner of the screen. The software will run every time the PC starts. At left is what it looks like in Windows XP and at right in Windows 7:



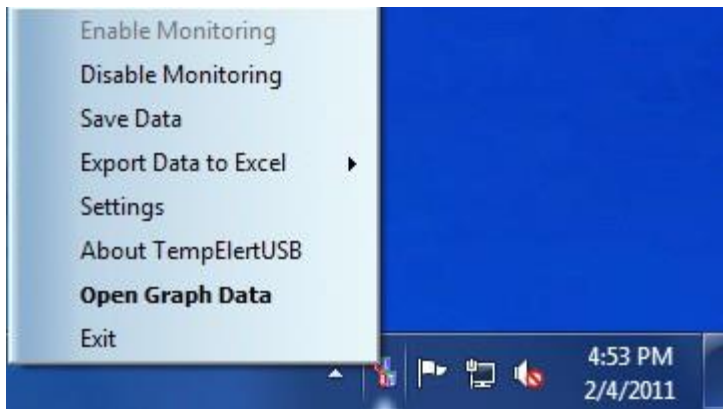
Depending on how your system is configured and the number of icons in the system tray, the TempElerUSB icon might be hidden, and require that you press the arrow in the system tray to reveal it and other hidden icons.

When the program is running, and the TempElerUSB sensor is plugged into a USB port or removed, the software will indicate the status above the system tray icon:



You can remove the device safely while the program is running, but the program will ask you if you want to save any logged data when you do so. Plugging the sensor in again starts a new data logging session automatically.

Right clicking on this icon brings up the TempElerUSB software menu shown below. The menu gives options to enable or disable monitoring, graph the current data, export to Excel and modify logging settings. These settings are also available from the 'File' menu when the main software window is open.



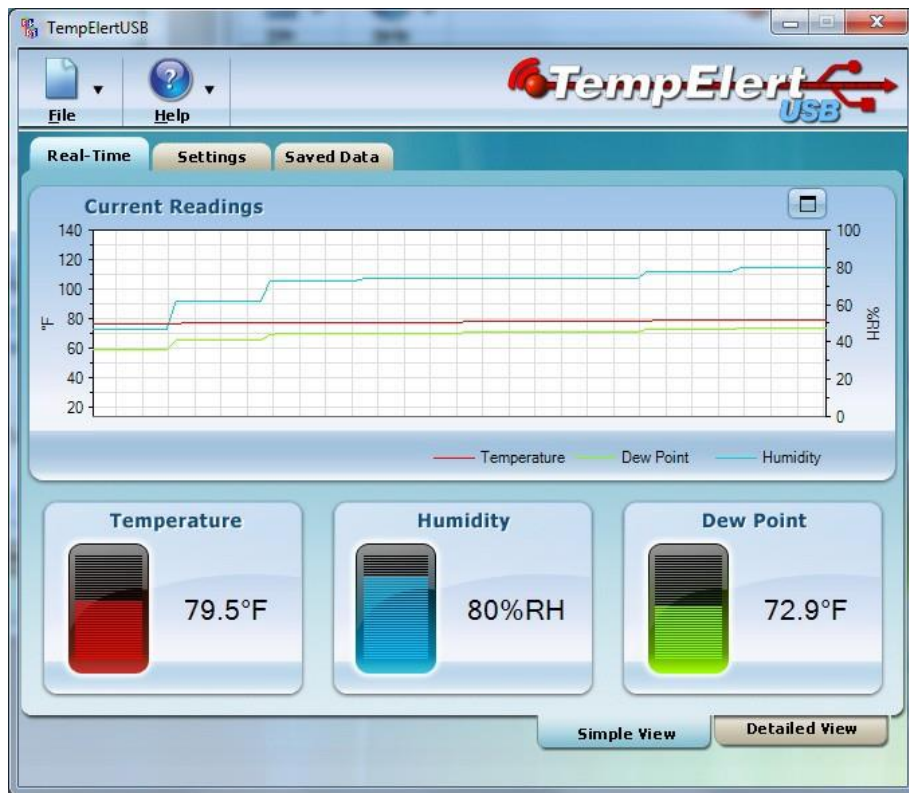
When the TempElerUSB sensor is plugged in, monitoring is enabled, moving the mouse over the notification icon will display the current readings, as shown below:



Selecting 'Open Graph Data' from the right click software menu opens the main display page. The current temperature, humidity and dew point readings are displayed here, along with a graph of recent data.

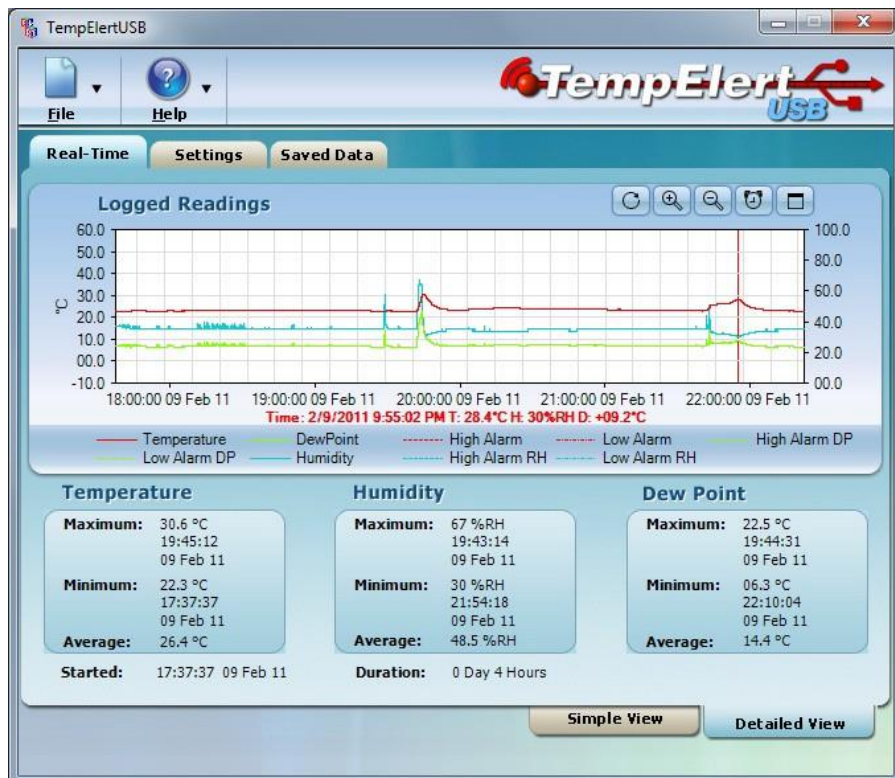
2.2 Simple view

The 'Simple View' gives a graph of the previous minute of readings and bar graphs of the current readings. This is a real-time display of all values.



2.3 Detailed view

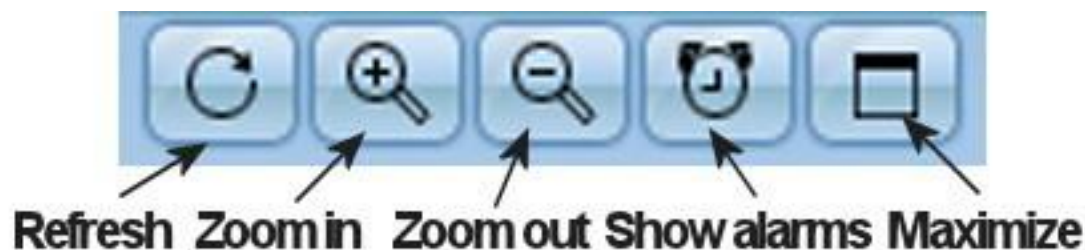
Switching to the detailed view (click on the tab) displays a graph of the complete logged session data to a maximum of 32,000 readings (see Data storage below for further info).



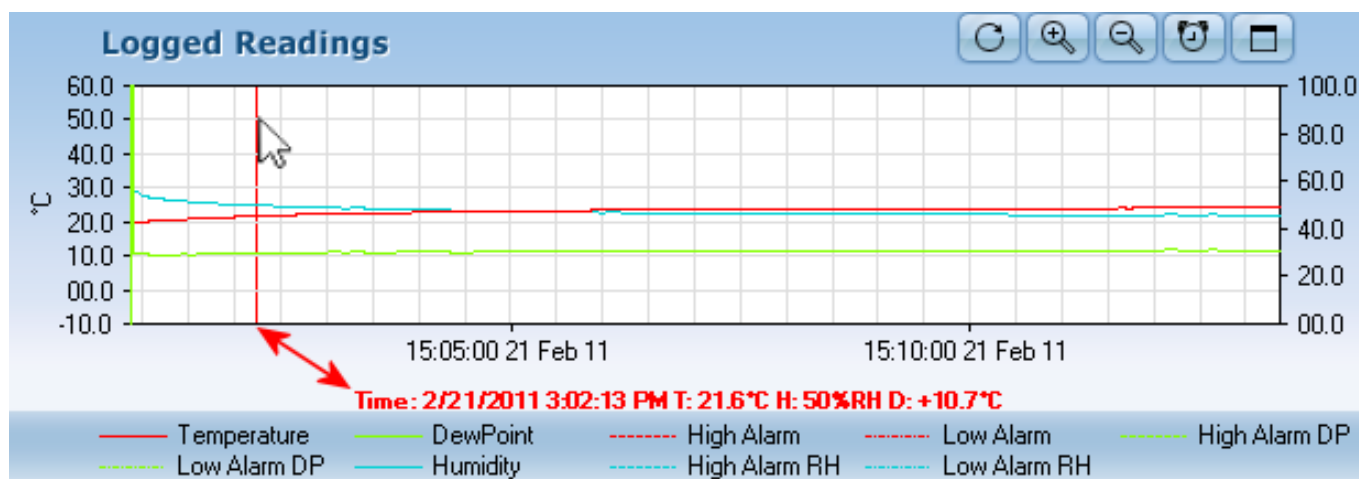
This view also includes maximum, minimum and average readings for each parameter.

NOTE: unlike the Simple View main screen, while being viewed this graph does not automatically update. Click the refresh icon button to view the latest logged data.

Here are the control icons and what they mean:



Also note the vertical red line, when the mouse pointer is over the graph window, this line is movable. The data directly under the red line is then displayed in red text below the graph window as show below:



Moving the mouse pointer moves the red data inspection line, and changes the displayed text. Use the zoom controls for more or less detail, and if you need a larger sized graph, use the maximum icon button to make the graph full screen.

2.4 Data storage

The TempElertUSB sensor does not store readings internally on the device, but transmits the data to the host PC via the USB port where they are logged on the PC's hard disk.

The data storage system is intelligent, and only stores data that has changed.

A reading is taken once every second, which is then compared to the previous reading. If the readings are the same, the reading is then discarded. If the readings are different, a new data entry is created. This conserves file space as the data file only stores changes, rather than a reading every second.

The readings are written to a temporary file that automatically saves when the capacity reaches 32,000 entries. The data can also be manually saved at any time by the user, via the system tray icon or File menu.

File size is limited to 32,000 readings, as this is the maximum number of readings that Microsoft Excel can display on a single graph. Because the TempElertUSB only records changes, there is no fixed time duration for the file. Typically, the file will store between four and nine days of logged data.

The default location for automatically saved files is:

My Documents\EL-USB-RT\

The user can modify this however, by performing a manual save and picking a new disk and/or folder location. All future automatic data saves will then use this new location.

When the user attempts to shut down or log out of the PC, or unplugs the sensor from the USB port, the TempElertUSB software will offer to save the current data.

NOTE: This feature can be disabled in the settings tab by ticking 'No backup on session end'.

If the temporary file is not saved it will be overwritten when the next recording session starts. A backup copy of the temporary file is made, that can be used to recover the penultimate recording session (In the event of a power failure, or when a user forgets to save data).

The temporary files that are used to store the readings can be found in a hidden directory at the location:

C:\Documents and Settings\<user>\Local Settings\Application Data\ EL-USB-RT \

Where <user> is the current logged in user name.

3. Settings and Thresholds

The 'Settings' tab has options to configure the measurement scale (°C, °F), turn alarms on and off for each variable (with user adjustable thresholds) and modify email settings (see section 3.1).

Check the radio buttons for °C for Centigrade or °F for Fahrenheit display values. The default is °C

You can run a single alarm threshold, such as high temperature, and leave others unchecked if you wish, or you can combine in combinations.

You can use the up/down arrows to change the value or highlight the text and type it in directly. With the numeric field cursor visible, you can also use the up/down arrows on the keyboard to increase/decrease the alarm threshold values in 0.5 degree increments.

The threshold alarm setting for dew point allows you to set an alert to indicate that the temperature is getting close to the dew point, the point where the water vapor in the air will condense. This is useful for detecting flooding and mildew conditions.

TempElerUSB

File Help

Real-Time Settings Saved Data

Display Temperature in: ☐ °C ☒ °F

Alarm Levels

Temperature :	<input checked="" type="checkbox"/> High	82.0 °F
	<input checked="" type="checkbox"/> Low	32.0 °F
Humidity :	<input checked="" type="checkbox"/> High	90 %RH
	<input checked="" type="checkbox"/> Low	25 %RH
Dew Point :	<input type="checkbox"/> High	32.0 °F
	<input type="checkbox"/> Low	32.0 °F
	<input type="checkbox"/> Threshold	0.0 °F

(Alarm is triggered when temperature is within entered threshold of dew point)

☐ Mute PC beep on alarm ☒ Enable email settings

☐ No backup on session end ☐ Enable Daily Activity Log

Email configuration

Save

Additional settings on this page are:

[] Mute PC beep on alarm - Mutes the PC speaker

(By default the PC speaker will beep every 5 seconds when an alarm condition is met).

[] No backup on session end - Disables the TempElertUSB software prompt to save data when the PC is shut down or the user logs off.

[] Enable email settings - Enables email alerts to be sent (see section 3.1).

[] Enable Daily Activity Log - Sends an email every 24 hours at midnight with the day's data, including maximum, minimum and average readings for each parameter

NOTE: Enable email settings must be checked for this feature to work.

The 'Save' button must be pressed before any changes take effect.

3.1 Email and mobile text messaging

The software can be configured to send email alerts (when an alarm threshold is met or exceeded) and daily activity logs.

The daily activity logs are sent as an attachment and include the past 24 hours of data and the maximum, minimum and average reading for each parameter. This data can then be imported into the software or excel for viewing.

To use the email facilities, a POP/SMTP email account is required. The software will not send emails using a Windows Live / hotmail account or Windows exchange server. Google Mail offers a free email service that has POP/SMTP functionality, if one is not already available.

The email alerts and daily activity log are enabled on the 'Settings' page of the software by ticking the boxes 'Enable email settings' and 'Enable Daily Activity Log'. The email alerts must be enabled for the daily activity log to be functional.

3.2 Email configuration button

When the 'Email configuration' button is pressed for the first time, a wizard will guide you through the steps needed to setup the software to send email. Subsequent access to the settings page will open the existing email settings. The wizard can be re-run by clicking on the 'Show wizard' link at the top of the page.

Email Wizard Screen #1



TempAlert USB

Your E-mail Client

If you are not sure of these settings it maybe possible to import them from your e- client (Outlook and Outlook Express Only)...

Import SMTP settings

Enter your Email Account Name

This is the name you use to sign into your e-mail account. This normally is either the portion of your email address before the '@' sign or your complete email address.

Enter your Email Account Password

This is the password you use to access you e-mail account.

<< Back Next >> Finish Cancel

Before setting configuring the email setting, the following information is required:

- Outgoing mail server name (SMTP)
- Outgoing mail server port number (SMTP)
- User Name
- Password
- From Address
- Enable secure connection for server (SSL)

If you do not know this information it can be obtained from your email software (If it is a client based email account – please see section 3.3) or from your email provider (This information is normally available on email provider help pages).

Not all web based email accounts support POP / SMTP functionality (such as hotmail). Please consult your provider directly or their help pages.

Users of Microsoft Outlook and Outlook Express can import their setting directly, using the 'Import SMTP settings' button on the second page of the wizard.

The user only needs to select the email client and then the profile / identity (Normally 'Main Identity' in Outlook express) from the drop down lists. The only settings that are not imported are the password and recipient email address (which can be the same as the sender's email address). The 'Setup outgoing email server' does not need modifying and can be ignored.

Here are the remaining two screens of the email wizard:

Email Wizard Screen #2



Set-up Outgoing E-mail Server

Enter your outgoing e-mail server name:

This is the name of your outgoing e-mail server that your e-mail provider will supply you with (e.g. smtp.example.com)

Enter outgoing mail server port number:

The standard port number for non-SSL enabled SMTP e-mail is 25. Secure SSL e-mail is normally port 465.

☐ Enable secure connection for this server (SSL)
Your e-mail provider will indicate whether you require this setting enabled

Enter the 'From' address to use:

This is the e-mail address that the alert will appear to come from. We recommend that you use the e-mail address of the account you are using to send the message e.g. user@example.com

<< Back Next >> Finish Cancel

Email Wizard Screen #3



Alert Notification Details

Enter the e-mail address you wish to send the alert notifications to:

This can be the same e-mail account that you are using to send the messages. Click 'Add More' to add multiple recipients.

Enter any additional text you wish to appear in your e-mail notification e.g. location, site name. If you are using more than one TempEAlertUSB this will help identify which unit has sent the e-mail.

The TempEAlert USB in the server room has detected an alarm condition!

Immediate attention is required.

Alarm Time out value:

This determines the interval between alert e-mails for each alarm. This helps limit the number of alert emails you receive for the same condition.

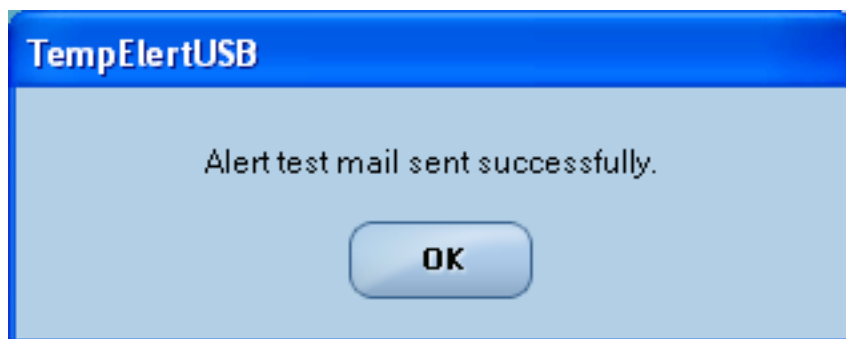
<< Back Next >> Finish Cancel

After pressing the "finish" button, to verify the settings, press the 'Send test email' button in the next screen:

Email Wizard Screen #4



There may be a short period of inactivity while the email is sent. If the email was sent successfully, you'll get this screen:



It is possible to use an SMTP server built into the TempElerUSB software which does not require any email provider settings. This is only recommended if you are experiencing difficulty using the POP / SMTP method, as there are limitations with this method. Your network firewall may or may not allow this. Check with your network administrator.

The TempElerUSB SMTP server mode can be selected on the settings page shown after the wizard is completed.

The method works by contacting the recipients email server directly. The limitations are as follows:

- Some recipient domains, including AOL, may refuse email that originates from a residential gateway.
- Some domains do not accept email from dynamic IP addresses.
- Some mail servers employ an anti-spam technique called Grey-listing. The server will reject incoming emails until a certain time period has elapsed, usually an hour.

3.3 Locating email account settings from your email client

If you use a client application to download your email, such as Microsoft Outlook or Outlook Express the settings you require can be obtained from the account settings page of these applications. This steps are only valid for POP / SMTP type email accounts.

Outlook Express 6

Select the 'Tools' menu and then 'Accounts...'. Select the 'Mail' tab and highlight the email account you wish to use. Click the 'Properties' button.

The 'General' tab indicates the email address. Select the Server tab and make a note of the 'Outgoing mail (SMTP)' and 'Account Name' (User Name) details.

To check which port is used and whether it needs to be a secure connection, select the 'Advanced' tab. Take note of the 'Outgoing server (SMTP)' port number and whether 'This server requires a secure connection (SSL)' is enabled. All these settings can now be entered into the TempElerUSB software.

Microsoft Outlook 2003

Select the 'Tools' menu and then 'Account Settings'. The email wizard is now displayed and the default option 'View or change existing email accounts' should be selected. Click 'Next' and the following screen will show the available accounts. Highlight the one you wish to use and select 'Change...' to view its properties.

From the 'Internet Email Settings' screen, take a note of your 'Outgoing mail server (SMTP)', 'User name' and email address. To check which port is used and whether it needs to be a secure connection click the 'More Settings' button and select the 'Advanced' tab. Take note of the 'Outgoing server (SMTP)' number and whether 'This server requires an encrypted connection (SSL)' is enabled.

All these settings can now be entered into the TempElerUSB software.

Microsoft Outlook 2007

Select the 'Tools' menu and then 'Account Settings'. Under the 'email' tab, highlight the account you wish to use and click the 'Change...' button on the menu bar.

From the 'Internet email Settings' screen take note of your 'Outgoing mail server (SMTP)', 'User name' and email address. To check which port is used and whether it needs to be a secure connection click the 'More Settings' button and select the 'Advanced' tab. Take note of the 'Outgoing server (SMTP)' number and whether 'This server requires an encrypted connection (SSL)' is enabled.

All these settings can now be entered into the TempElerUSB software.

3.4 Common Provider Email Settings

Gmail

Ensure that your account is POP enabled by clicking on the settings button at the top of any Gmail page and then selecting click 'Forwarding and POP / IMAP'. The 'Enable POP for all mail' box should be ticked. Ensure that the 'save changes' button is pressed before leaving the page.

Gmail server details:

- Outgoing mail server name (SMTP) smtp.gmail.com
- Outgoing mail server port number (SMTP) 465
- User Name <your Gmail address, including @gmail.com>
- Password <your Gmail password>
- From Address <your Gmail address, including @gmail.com>
- Enable secure connection for server Enabled

Yahoo!

Not all Yahoo! domains provide free POP email access. It is freely available to www.yahoo.co.uk and www.yahoo.ca domains. Other yahoo users may have to pay for a 'Yahoo! Mail Plus' account. If POP access is available on your Yahoo! Account, you will need to switch to the 'Mail Classic' interface to view the necessary options. To enable POP access, log in to your account, click options, select 'POP access and Forwarding' and tick the 'Web & POP Access' option. The interface can then be returned to normal if required.

Yahoo! Mail Plus server details:

- Outgoing mail server name (SMTP) plus.smtp.mail.yahoo.com
- Outgoing mail server port number (SMTP) 465
- User Name <your email address, without the @yahoo.com>
- Password <your email password>
- From Address <your email address, including @yahoo.com>
- Enable secure connection for server Enabled

3.5 Email troubleshooting

- Ensure that the 'Enable email Settings' box is ticked in the TempElerUSB software email configuration screen
- Check that no security software is blocking the TempElerUSB software accessing the internet and sending email. You may need to set a rule or open a port in you firewall software to allow sending of email for the TempElerUSB software.
- When there is an error sending an email the TempElerUSB software generates an error.txt file. This file can contain useful information is diagnosing the problem.

It is located here:

C:\Documents and Settings\<user name>\Local Settings\Application Data\TempElerUSB\error.txt

Where <user name> is the name of current user profile on the PC that you are using. The file is in a hidden folder. If this folder cannot be seen, go to the 'Tools', 'Folder Options' menu in Window Explorer and tick the 'Show hidden files and folders' option.

IMPORTANT NOTE: To fully test the TempElerUSB system, it is **STRONGLY** recommended that you test the device alert to email/pager/cellphone messaging capability by warming it up in your hand to send an actual email alert. This ensures that all parts of the system are working and an actual temperature alert is delivered to you. This can be accomplished by setting the Temperature threshold to 80F and holding the connected TempElerUSB device in a closed palm of your hand for about 1 minute.

Humidity alerts can be tested in a similar way. Set the humidity maximum threshold to 70% and exhale onto the connected TempElerUSB sensor two or three times until the humidity exceeds 70%.

The default alarm time-out value for subsequent email alerts is 15 minutes, meaning that after the first alert is sent, there will not be another for 15 minutes. If you need faster updates, try changing the alarm time-out value to a shorter interval. The minimum interval is 1 minute.

See settings on the screen below:

Email Plug-in setting

Email Settings **Message Settings** [Show Wizard](#)

Send mail to: **Add**

Recipients

someplace@example.com

interval at which emails repeat

Alarm time out value **15** minutes **Delete**

SMTP Settings

☐ Use TempElerUSB SMTP Server

Outgoing mail server name(SMTP):

Outgoing mail server port number(SMTP):
(Standard SMTP port number is 25)

User Name:

Password:

From Address:

☐ Enable Secure connection for server (SSL)

Import SMTP settings **Test Email**

Clear **Save** **Cancel**

3.6 Sending Messages to Mobile Phones

Most mobile phones now have email functionality.

Mobile phones in North America generally have an email address which takes the form of :

mobilephonenumber@carrieremailaddress

e.g. 3214567891@vtext.com

Where 3214567891 =10 digit mobile phone number (including 321 area code) and vtext.com = carrier email address (e.g. Verizon).

Note: Addresses may change so you need to verify them with your provider before using. In order to send to a cell phone you simply enter the email address (as described above) into the TempElerUSB software.

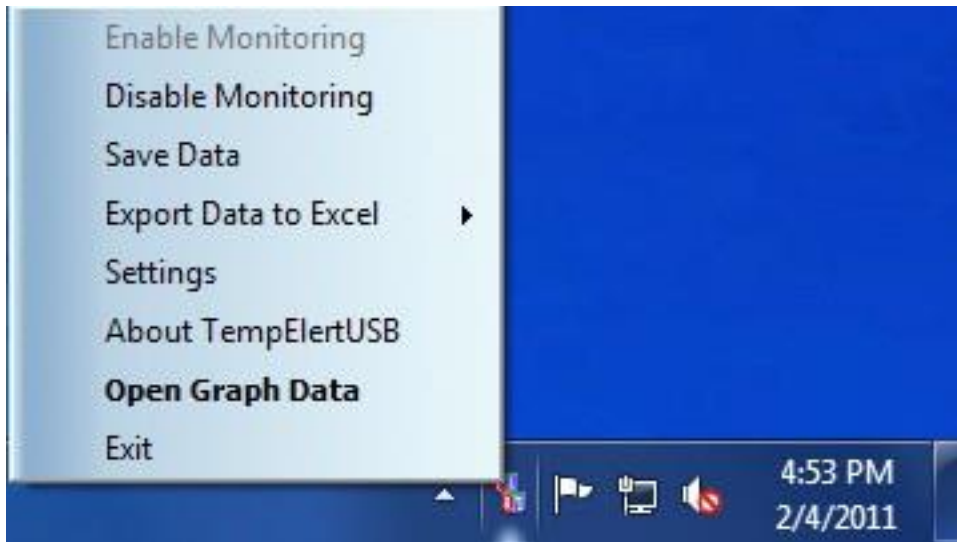
If your mobile phone does not have email functionality, it some provider settings is possible to send text messages to it by sending an email to a third party provider that then forwards it as a text message to your mobile phone. Check with your provider for such a service if you do not have a direct email address for your mobile phone.

Ensure that you keep any additional text to a minimum, to avoid exceeding the 160 character limit of text messages. Note also that some providers charge per message, so if you have configured to also deliver a daily log, you may find charges being assigned to your account. You can configure the body of the message from TempElertUSB to be minimal

Always check with your mobile phone provider to be sure of the address and any possible additional charges you may incur.

See the section 7, Appendix for commonly used addresses for email and cellular phone providers and use that as a guide for setup and testing to your own mobile phone.

3.7 Export Data to Excel

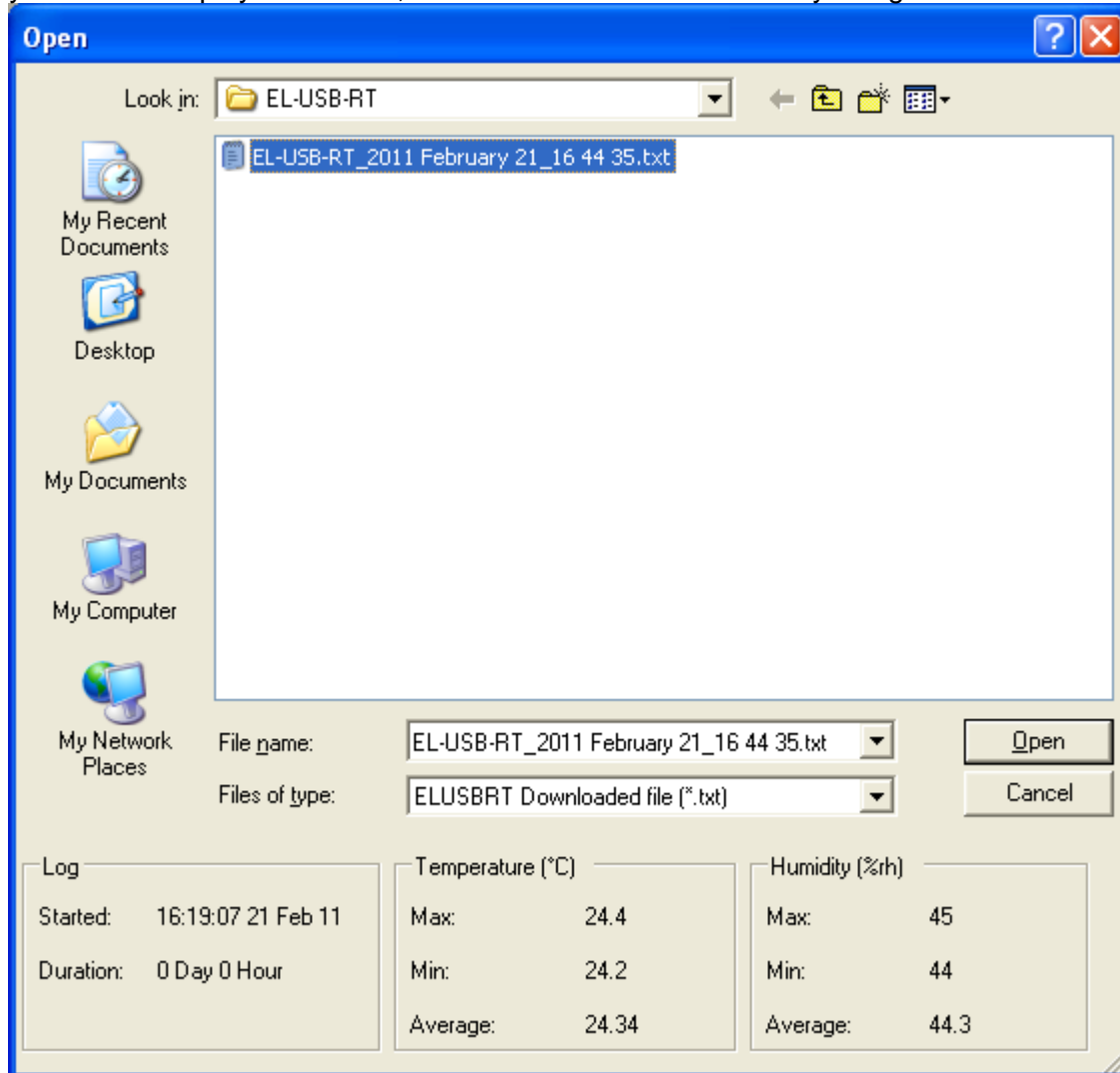


Data can be exported to Microsoft Excel by selecting the 'Export data to Excel' option from the file menu in the main software or by right clicking on the taskbar notification menu icon as shown above.

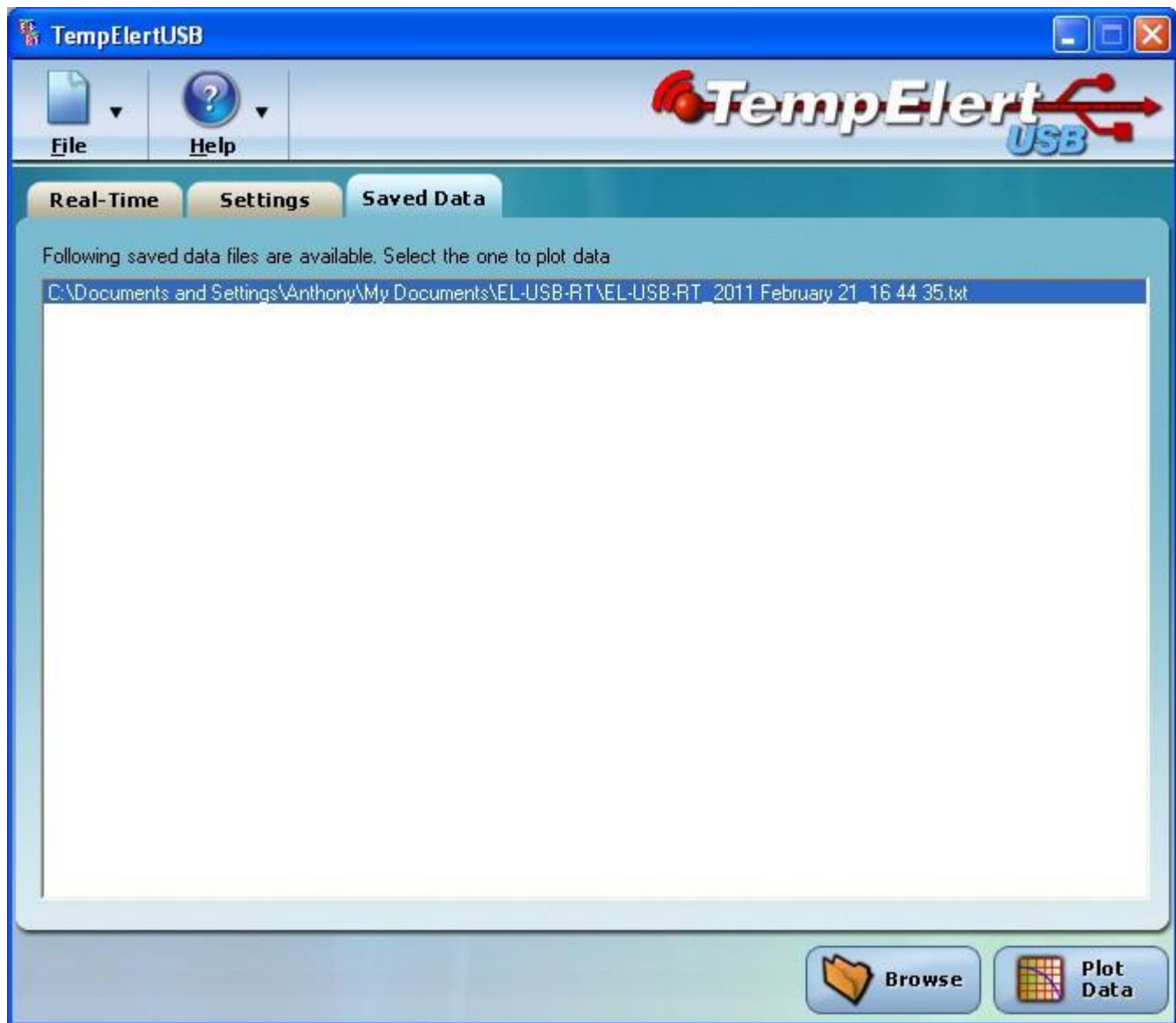
When you use this feature, it will ask if you wish to use current or saved data, pick one, then Excel will be automatically opened for you, and the data inserted as a sheet, with a graph displayed for you.

3.8 Saved Data

The 'Saved Data' tab shows a list of any automatically saved data files. First you must locate the data file you wish to display. To do this, Files can be added to this list by using the 'Browse' button.

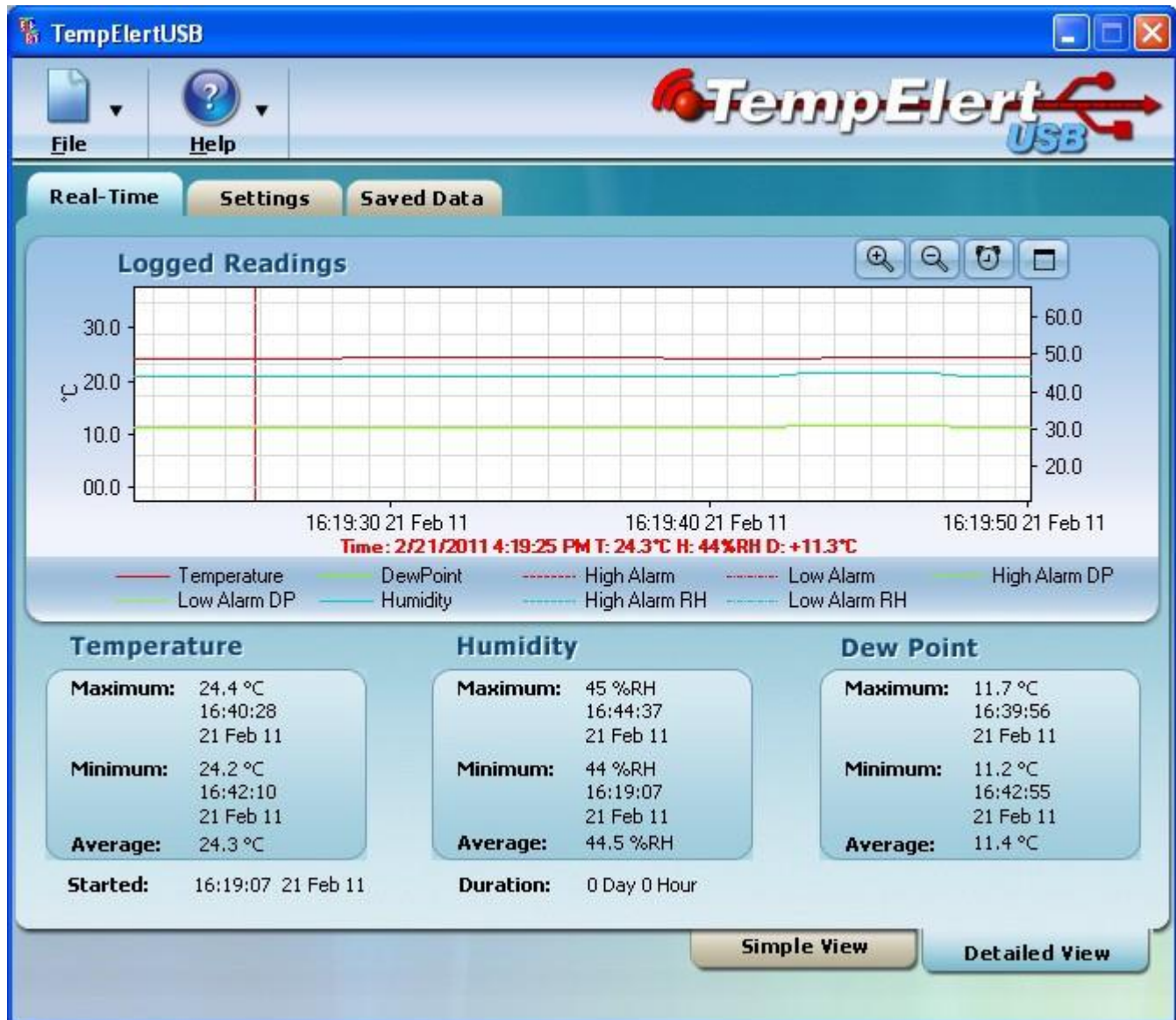


Once the file is selected, then press the Open button to get this screen



Then, press 'Plot Data' to view the data of any files added to the saved data list.

The data will be displayed:



Appendices follow below.

Appendix A

PowerBug computer shutdown utility (optional use software included on the CD)

Note: The Powerbug utility is provided for manual operation only, it does not respond to alarm states of the TempElertUSB software. For automatic shutdown of systems upon temperature alarm detection, our Ethernet based TempElert Multiprobe system offers this feature.

You may use PowerBug on as many machines within your network as you wish. They can be set to respond to a single master commander install of this program elsewhere within your network, or from a remote laptop or PC provided that remote connection can pass the port #3210 or whatever port you select. ItWorks/IntelliWeather makes no warranty on the PowerBug program. It is provided "as is" for customers to test and use if they choose. Use at your own discretion/risk.



PowerBug PC Power State Manager

Optional Use Companion Program for TempElertUSB

-
- 1.0 Introduction
 - 1.1 System requirements
 - 2.0 Installation
 - 3.0 PowerBug Program Usage
 - 3.1 Starting
 - 3.2 Actions
 - 3.3 Where to do the actions
 - 3.4 When to do the actions
 - 3.5 Options
 - 3.6 Program Menu
 - 3.7 Event Logging
 - 4.0 Command-line options
 - 5.0 Remote Control Via TELNET
 - 6.0 System Tray Operation
-

1.1 Introduction

PowerBug is a unique and compact program that allows you to control the power state of your PC or a remote PC or server. It is a companion program for TempElert that can be run from the TempElert "run a program on alarm" option so that you can shutdown mission critical computers that may be damaged by high temperature conditions. For more information on the TempElert Ethernet Multiprobe Thermometer system see www.tempeleert.com and www.tempeleertusb.com

PowerBug can run as an application, or as a service, ensuring it can be started automatically on mission critical servers. For workstations with the ability to run as a service, it can be placed in the "Startup" folder to be executed on PC startup.

It can perform these main functions either locally or remotely:

- Power off PC immediately or on schedule
- Pop up a remote warning screen
- Shutdown Gracefully
- Reboot your PC
- Log off
- Lock your PC
- Go to standby or hibernation mode
- Wake up another PC using Wake on LAN functions
- Control a remote PowerBug program via TELNET

All actions can be done locally or on a remote PC (if the remote PC is running the PowerBug program).

These actions can be performed immediately or scheduled, by using a built-in scheduler.

All actions and options can also be controlled by command line options. This way, you can easily integrate PowerBug in your TempElert "Run Program on Alarm" conditions. You can also create and run a BATCH file of PowerBug commands using its command line execution mode. For example, create a BATCH file that pop up notifies all users on a portion of your network that a shutdown will occur due to an over temperature condition, and then perform the shutdowns 1 minute later.

PowerBug is very small (170 kilobytes) and is very light on resource usage, it can be left running on PC Workstations and Servers with minimal impact on the CPU and Memory usage of these machines.

1.2 System requirements

- Windows 98/ME/NT4.0/2000/XP/Vista/Windows7/Server 2003/2008 Both Workstation and Servers are supported
- Administrator Privileges for installing and running are required
- Ethernet adapter with TCP/IP networking installed
- Access to port 3210 for remote shutdown operations on both initiating and controlled PC
- Internet Explorer 6.0 or higher because it uses some common controls that are shipped with IE.

[Back to the Topic Menu](#)

2.0 Installation

Installation on a local or remote machine is very easy, just copy the PowerBug.exe file somewhere where you can find it (such as a folder named C:\PowerBug) and double-click the executable.

To uninstall, simply delete the PowerBug.exe file. PowerBug stores its settings in the registry, so you should remove them also, either by selecting 'Remove settings' from the file menu or by manually removing them from the registry using 'regedit.exe'

(WARNING: using regedit can damage your windows configuration, so be careful what you do!). The key that you can safely delete is

[HKEY_CURRENT_USER\SOFTWARE\PowerBug](#)

If PowerBug starts up, then it first looks for settings in HKEY_CURRENT_USER. If it cannot find any, then it looks in HKEY_LOCAL_MACHINE. This way you can define global settings and per user settings. You will have to create the global settings manually.

To delete the PowerBug service, choose 'Remove service' from the service menu. The settings are automatically removed. To manually remove the service settings, delete the registry key

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\PowerBug\Parameters](#)

Other registry keys that may be lying around then the service is removed are:

[HKEY_LOCAL_MACHINE\System\ControlSet00x\Services\PowerBug](#)

[HKEY_LOCAL_MACHINE\System\ControlSet00x\Enum\Root\LEGACY_PowerBug](#)

These should disappear when your computer is rebooted. They can be safely deleted when the service is removed.

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3.0 PowerBug Program Usage

3.1 Starting

When you double-click the PowerBug executable, the main window is shown. Here you can select which action to perform and select the appropriate options. To execute the desired action, simply hit the 'Do it' button.

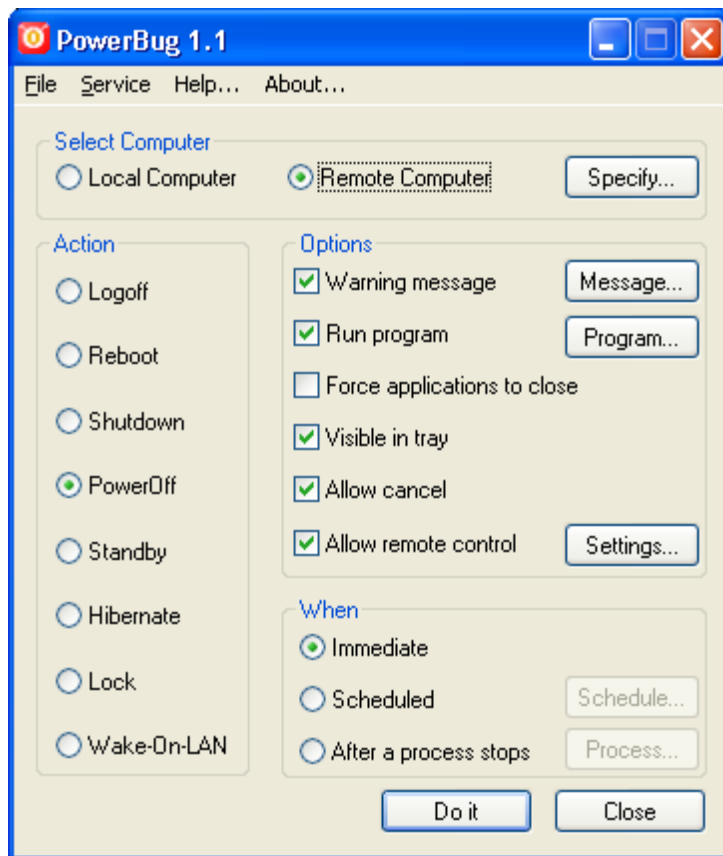


Figure 1

[Back to the Topic Menu](#)

3.2 Actions

PowerBug supports the following actions:

3.2.1 Logoff

Logs off the current logged on user.

3.2.2 Reboot

Reboots the computer.

3.2.3 Shutdown

Shutdown the computer.

In NT/2000/XP this will display the standard message 'It is safe to shutdown you computer'.

In Win9x/Me this will PowerBug your PC if your hardware supports it

3.2.4 PowerOff

This action will physically power off your computer. Your hardware must support this, for example an ATX motherboard and power supply should support it, but an old AT motherboard probably doesn't support it. You also have to have ACPI or APM enabled in your bios. And the power options must be correctly configured in the windows control panel. If Windows performs a PowerBug when you do a normal windows shutdown from the start menu, then it will also work with this program.

To enable PowerBug in Windows NT, you will need a hal.dll that is capable of shutting down your workstation. You can try one that's supplied with service pack 4 (or higher): hal.dll.softex

Just extract the service pack (with the /x option),

There are several machine-specific HAL.DLL's, and you MUST extract the matching HAL*.DLL.SOFTEX from the

service pack. To avoid problems when someone overwrites the good HAL.DLL with a bad one it's better to rename HAL*.DLL.SOFTEX to %SystemRoot%\System32\HALPOWER.DLL for instance, copy the line in %SystemDrive%\BOOT.INI which loads the current system, alter the description and append " /HAL=HALPOWER.DLL". Now one can choose between the two HALs and has a fallback if the new one fails.

If you like NT to automatically PowerBug at shutdown, set the following registry key to 1:

HKEY_LOCAL_MACHINE\Software\Microsoft\Windows NT\CurrentVersion\Winlogon\PowerdownAfterShutdown

3.2.5 Standby

If your PC supports it, then this will put your PC into standby mode (sleep mode). If you get a strange error message, then probably one of your device drivers doesn't support standby. Standby is not supported on NT.

3.2.6 Hibernate

If your PC supports it, then this will put your PC into hibernate mode. If you get a strange error message, then probably one of your device drivers doesn't support hibernate. You also have to have hibernation enabled in your power settings of the windows control panel (windows 2000 or above). Hibernate is not supported on Windows 95 or NT.

3.2.7 Lock

This action will lock your workstation. This is only supported on Windows 2000 or above.

3.2.8 Wake-On-LAN

This action allows you to start up a remote PC. This remote PC must support Wake-On-LAN. This means that you have to have a network card that is connected via an extra wire to the motherboard (or power supply) to provide some power. In the system BIOS, Wake-On-LAN must also be enabled.

How it works:

The network card constantly monitors the network for a 'Magic Packet' when the computer is switched off. This magic packet is a series of bytes that is sent over the network. A magic packet consists of a header (6*0xFF) and the MAC address of the network adapter repeated several times (16 times), for example if your MAC address is 01:02:03:04:05:06 (6 bytes), then the magic packet looks like this:

[illegible]

The network adapter recognizes the sequence and triggers the power supply to turn on the computer.

3.3 Where to do the actions

3.3.1 Local Computer

When this radio button is selected, then the action is performed on the local computer. This radio button is unavailable when the action is Wake-On-LAN. This is because there's no way that you can turn on your own computer...

3.3.2 Remote Computer

When this radio button is selected, then the action is performed on a remote computer. You have to click the 'Specify' button to specify on which remote computer to perform the action.

When the action is anything else than Wake-On-LAN, you are presented with the following dialog box:

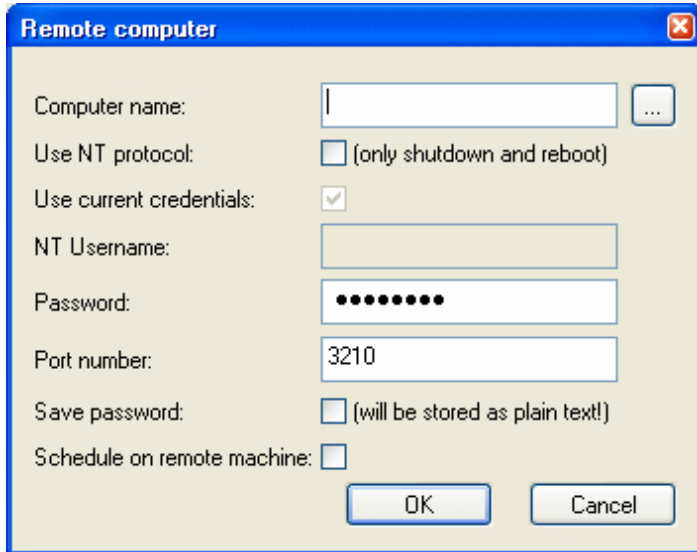
A screenshot of a Windows dialog box titled "Remote computer". It contains several fields and checkboxes. The "Computer name" field is empty with a browse button "...". The "Use NT protocol" checkbox is unchecked, with the text "(only shutdown and reboot)" next to it. The "Use current credentials" checkbox is checked. The "NT Username" field is empty. The "Password" field is filled with ten dots. The "Port number" field contains "3210". The "Save password" checkbox is unchecked, with the text "(will be stored as plain text!)" next to it. The "Schedule on remote machine" checkbox is unchecked. At the bottom are "OK" and "Cancel" buttons.

Figure 2

- Computer name: This is the name (or IP address) of the remote computer
- Use NT protocol: When you select this, then the standard NT protocol/authentication is used to reboot or shutdown the remote computer. These are the only two options supported in this mode!

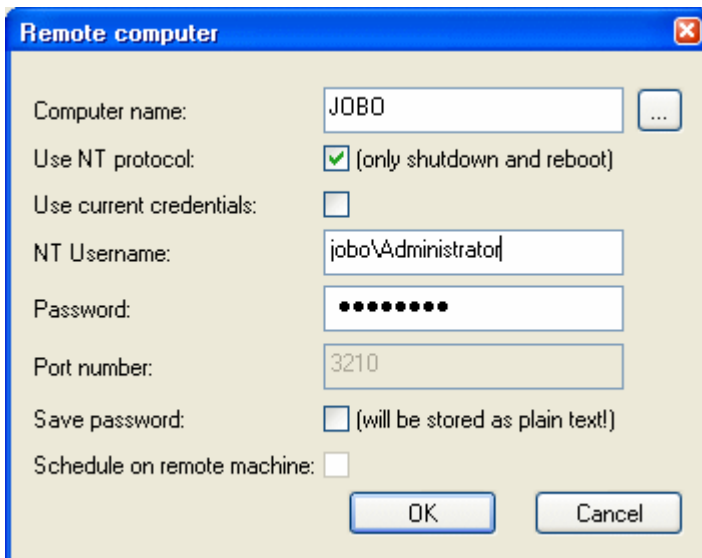
A screenshot of the "Remote computer" dialog box, similar to Figure 2 but with different settings. The "Computer name" field contains "JOB0" with a browse button "...". The "Use NT protocol" checkbox is checked, with the text "(only shutdown and reboot)" next to it. The "Use current credentials" checkbox is unchecked. The "NT Username" field contains "jobo\Administrator". The "Password" field is filled with ten dots. The "Port number" field contains "3210". The "Save password" checkbox is unchecked, with the text "(will be stored as plain text!)" next to it. The "Schedule on remote machine" checkbox is unchecked. At the bottom are "OK" and "Cancel" buttons.

Figure 3

You have to specify whether you want to use the credentials of the user that you used to log into windows. In that case, you don't have to supply a username and password.

If your current account is not allowed to shutdown the remote machine, then you can specify another username and password to connect to the remote machine that has the rights to shutdown the machine. This username can be a username of your current domain, then you only need to specify the username and password. If the user is from a different domain or the remote computer's local domain, then you have to prefix the username with the domain name (e.g.: DOMAIN\Username), see figure 3. Note that if you currently have a drive mapping of printer mapping to the remote machine, you cannot specify another username, this is an NT restriction.

This mode is only supported from and to NT/2000 computers. No Windows 9x/Me support!

When you do not select the 'use NT protocol' checkbox, then PowerBug must be running on the remote machine, either as a service or interactive with the 'Allow remote' option enabled.

When that is the case, then all actions are possible on the remote machine and it doesn't matter which version of windows is running there. Of course, you can still only perform actions that the remote OS supports...

- Password: Here you can specify the password that gives you access to the remote machine, leave blank if no password was specified by the remote PowerBug program.
- Port number: Here you can specify the port number where the remote PowerBug program is listening to
- Save password: When you save your settings in the main PowerBug screen, then the password for the remote machine is also saved. This will store the password as plain text in the registry!
- Schedule on remote machine: When you don't use NT authentication, then you can choose to do scheduling locally or on the remote machine. If you choose remote scheduling, then PowerBug must be running on the remote machine and you can stop your local PowerBug when the action has been submitted to the remote machine. Otherwise, you have to leave your local PowerBug program running until the time arrives.

When the action is 'Wake-On-LAN', then you are presented with the following dialog box:

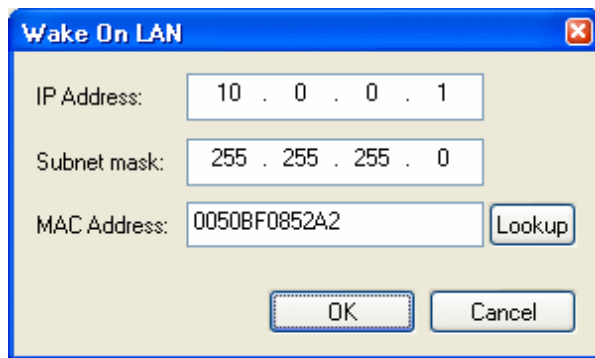


Figure 4

You have to specify the remote computer's IP address, subnet mask and MAC address. The IP address and subnet mask are necessary to calculate the broadcast address. The magic packet is only broadcasted to the right subnet. The MAC address is the physical hardware address of the computer's network adapter. You can click the 'Lookup' button to find the hardware address. This performs a ping to the remote computer and then looks into the ARP table for the IP address. This means that the lookup may not always work correctly. If the lookup fails, then you must get the MAC address from the remote computer itself by inspecting the network adapter's properties. The MAC address is a series of 12 hexadecimal numbers.

Some adapters may display the MAC address as XX-XX-XX-XX-XX-XX, but in PowerBug it must be specified without the dashes.

3.4 When to do the actions

3.4.1 Immediate

Executes the desired action immediately when you press the 'Do it' button.

3.4.2 Scheduled

Executes the action at a certain moment in time. Click the 'Schedule' button to specify when to execute the action.

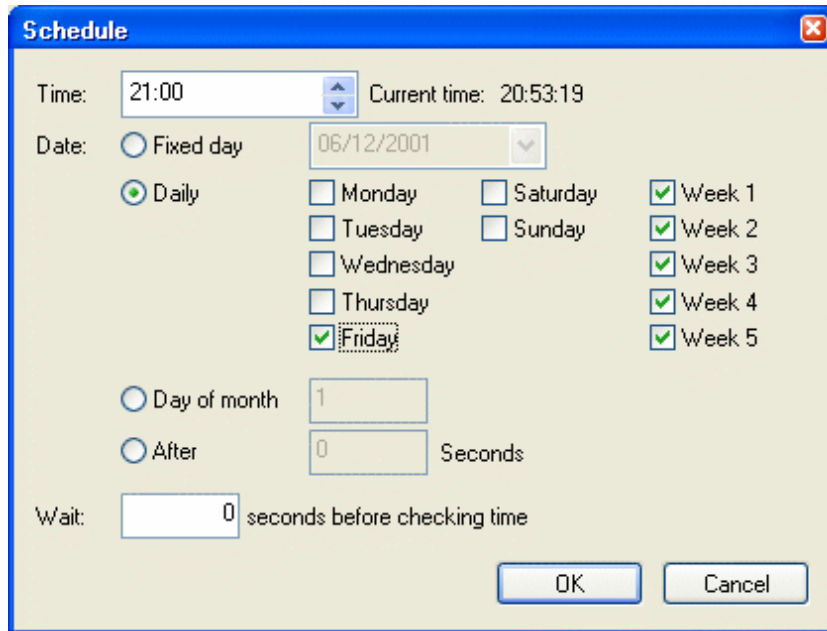


Figure 5

In the time field, you can specify the time when the action must be performed. The time format is hh:mm (0-23 hours).

The date radio box lets you choose the days on which the action must be performed:

- Fixed day: Performs the action only once on the specified date. The date format is dd/mm/yyyy
- Daily: Performs the action on the days of the week that you specify. You can also select the weeks of the month on which to perform the action. For example you may choose to reboot your PC at each Friday of weeks 1 and 3. This option requires that you install the PowerBug service.
- Day of month: Performs the action on a specific day of the month each month. For example you may choose to reboot your PC every 1st of the month. This option requires that you install the PowerBug service.
- After x seconds: Performs the action after the specified number of seconds.

3.4.3 After a process stops

Executes the action when some running process finishes. Click the 'Process' button to specify the process.

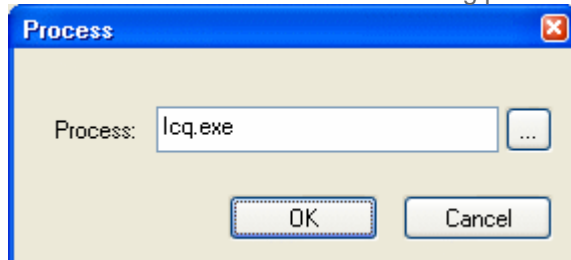


Figure 6

Here you can type the exact process name or choose the name from the current process list by clicking the '...' button.

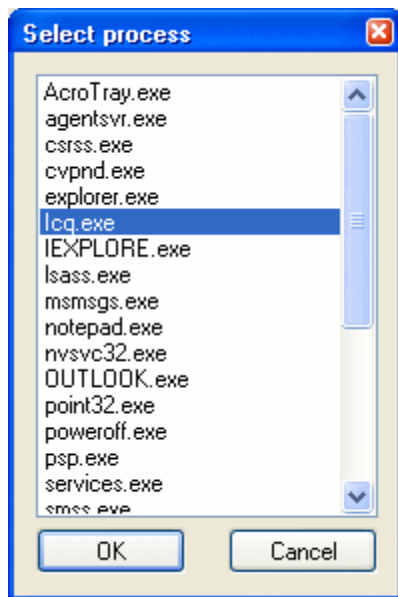


Figure 7

PowerBug will poll the running processes every second. When the specified process is not running, the action will be executed. This can be useful for shutting down your PC when a certain program has finished or even as a watchdog to reboot the PC when a program that should be running has died.

3.5 Options

3.5.1 Warning Message

With this option you can give a warning message to the user before performing the action. Click the 'Message' button to specify the message properties:

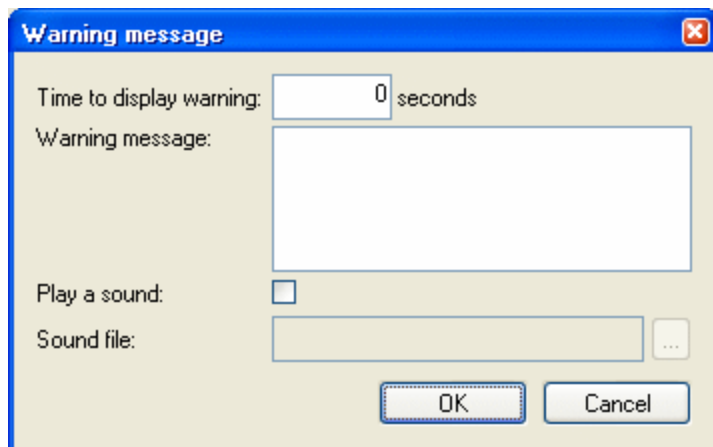


Figure 8

You can enter the number of seconds that the warning message must be shown. When the seconds have passed, then the action is performed.

You can also specify the message text that must be shown.

If you want a sound to be played when the dialog box is shown, then you can select the 'Play a sound' checkbox. Then you must also specify the sound file that must be played. If the action must be performed on a remote computer, then the sound file must also exist on the remote computer!

3.5.2 Run a program

This option allows you to run a program before the action is executed. This can be useful to properly shutdown some other program before shutting down your PC. Click the 'Program' button to enter the program options:

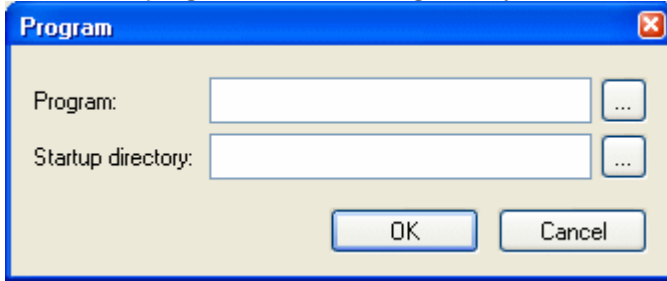


Figure 9

You must enter the program that must be executed, or choose it from a list by clicking the '...' button. You can also specify the startup directory for the program or select it from a list by clicking the '...' button.

If you need to run multiple programs, then you should put them inside a batch file and then call the batch file from within PowerBug.

3.5.3 Force applications to close

This option is useful for forcing running applications to close. Otherwise some applications may not exit when windows is shut down because they popup a dialog box or because they 'hang'. This option kills all running programs before logging off, rebooting, shutdown or PowerBug.

This also implies that any changes made in running programs will not be saved, so for example if you have a text editor open with unsaved changes, then the editor will be closed without asking you to save the changes!

3.5.4 Visible in tray

When this option is selected, then the PowerBug icon will be visible in the system tray when the 'Do it' button has been pressed and a non-immediate action has been selected. Otherwise, PowerBug will seem to have disappeared and there's no way to make it reappear.

3.5.5 Allow cancel

When this option is selected, then you will be able to cancel any chosen action (except when 'Immediate' execution is selected). You will be able to cancel the action from the system tray and in the warning dialog (if those options are set).

3.5.6 Allow remote control

When this option is selected, then other computers can connect to your PC and do all actions that PowerBug supports on your PC remotely. This is useful when running PowerBug as a service and when you're the network administrator, then you can reboot remote machines from your PC. Click the 'Settings' button to specify remote control options:

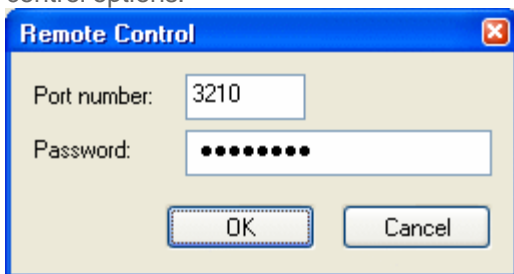


Figure 10

You can specify the TCP port number where PowerBug listens to for connections. You can also specify a password that remote computers must enter before they gain access to your PC. This password is encrypted and stored in the registry.

3.6 Program Menu

3.6.1 File menu

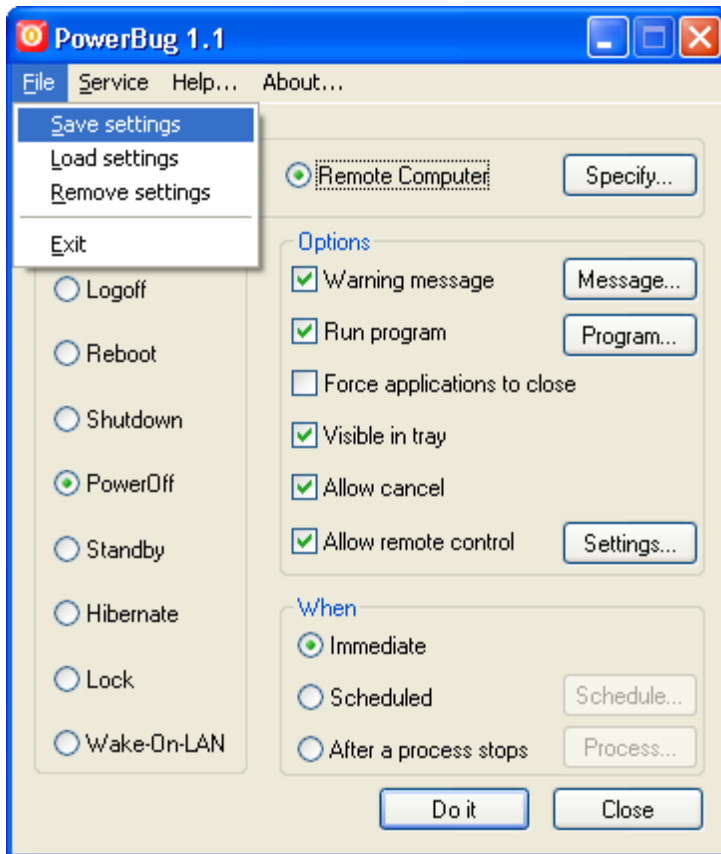


Figure 11

- **Save Settings:** This saves the current settings to the registry. The next time you start PowerBug, it will read these settings from the registry so that you don't have to set you preferred settings again.
- **Load Settings:** This reads the settings from the registry and overwrites any changes made
- **Remove Settings:** This removes all settings from the registry and restores the default settings.

3.6.2 Service

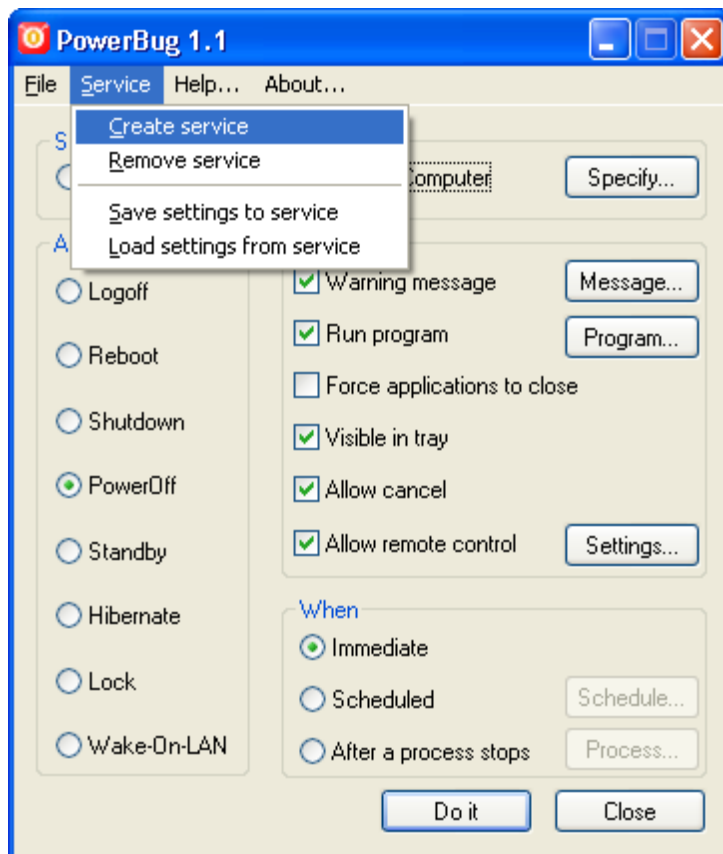


Figure 12

- **Create service:** This creates the PowerBug service. This makes PowerBug run in the background and can even run when you're not logged on. The current settings are saved to the registry so that the service can run with these settings. When the 'visible in tray' option is selected, then the PowerBug service is accessible via the system tray. The service will only execute some action when the 'Scheduled' option is selected, otherwise PowerBug will just start up and will be visible in the system tray (if that option was selected of course).
- **Remove service:** This removes the PowerBug service. If the service is currently running, it is stopped (only on NT/2000/XP). On 95/98/Me you will have to reboot in order to stop the service. Removing the service will also remove the service settings.
- **Save settings to service:** This will save the current settings to the service. On NT/2000/XP, the service will also be restarted to pick up the new settings. On 95/98/Me, you will have to reboot for the service to pick up the changes.
- **Load settings from service:** This will read the service settings from the registry and make them the current settings.

3.7 Event Logging

If you have Windows NT/2000/XP, then you can always check the event log (application log) for messages from PowerBug. Here you can find information and error messages about the actions that were performed.

4.0 Command-line options

You can control every option and setting from the command-line. This makes PowerBug excellent for use in batch files. Some options have changed since previous releases, so check your batch files! If you do PowerBug /?, you will get an overview of all the options (look above for a description of all the settings):

Usage: PowerBug action [options]

Actions: logoff, reboot, shutdown, PowerBug, standby, hibernate, lock or WOL

Options:

-warn	: Show a warning message before doing the action
-warntime s	: Show the warning message for s seconds
-playsound	: Play a sound when the warning is displayed
-soundfile "f"	: Specifies the .WAV file that must be played
-msg "m"	: Specifies the warning message, use \n for a newline character
-force	: Force applications to close
-wait s	: Wait s seconds before checking the time
-remote m	: Do the action on the remote machine m (name or IP)
-remschedule	: Do the scheduling on the remote machine
-use_nt	: Use the NT protocol to shutdown/reboot a remote machine
-port p	: Use port p to connect to the remote machine
-username u	: User NT username u to connect to the remote machine
-password p	: Use password p to connect to the remote machine
-run	: Run a program before doing the action
-program "p"	: Runs program p before doing the action
-directory "d"	: Start the program in directory d
-notray	: Do not show PowerBug icon in the system tray
-nocancel	: Do not allow the user to cancel the action from the tray or in the warning dialog
-immediate	: Perform the action immediately (default)
-scheduled	: Perform the action in a scheduled manner
-time hh:mm	: Perform the action at the specified time
-date dd/mm/yyyy	: Perform the action on the specified date
-days [m,t,...]	: Perform the action on the specified days of the week (m,t,w,th,s,su)
-weeks [1,...,5]	: Perform the action on the specified weeks (default=all weeks)
-day d	: Perform the action on the specified day of the month (1-31)
-seconds n	: Perform the action after n seconds
-process p	: Perform the action when a process named p does not exist anymore
-ip ip	: Specifies the IP address for WOL
-subnet s	: Specifies the subnet mask for WOL
-mac m	: Specifies the MAC address for WOL
-allow_remote	: Allow remote control
-remote_port p	: Listen on port p for commands
-remote_pswd p	: Set a password that clients must give for remote control
-simulate	: Simulate all actions, do not perform them
-minimize	: Start minimized in the system tray
-quiet	: Don't display error messages
-save_settings	: Saves current settings to the registry
-remove_settings	: Remove the settings from the registry
-save_svc_set	: Save current settings to the service
-remove_svc_set	: Removes the service settings
-create_service	: Creates the PowerBug service, including the settings
-remove_service	: Removes the PowerBug service, including the settings

Examples:

The following command shuts down the PC after giving a 20 second warning.

[C:\Program Files\TempElert\PowerBug.exe shutdown -warn -warntime 20 -msg "You will be logged off in 20 seconds"](#)

The following command creates a service that shuts down the PC everyday at 23:00, forces all applications to close, gives a warning to the user, plays a sound file when the warning dialog is shown and listens for remote control using a password:

[C:\Program Files\TempElert\PowerBug.exe shutdown -warn -warntime 60 -msg "You PC will PowerBug in 60 seconds\nPlease save your work" -playsound -soundfile "d:\winnt\media\ringin.wav" -force -scheduled -time 23:00 -days m,t,w,th,f,s,su -allow_remote -remote_pswd password -create_service](#)

The following command will shutdown a remote computer using the standard NT protocol:

`C:\Program Files\TempElert\PowerBug.exe shutdown -remote computer -use_nt -username computer\administrator -password password`

The following command will reboot the computer after a program (cmd.exe) has finished:

`C:\Program Files\TempElert\PowerBug.exe reboot -process cmd.exe`

The following command will wake up a remote computer:

`C:\Program Files\TempElert\PowerBug.exe wol -ip 10.0.0.1 -subnet 255.255.255.0 -mac 0050BF0852A2`

The following command will log off the user 60 minutes after logging on when the command is put inside the startup folder. The user will not be able to see that PowerBug is running and will not be able to cancel it:

`C:\Program Files\TempElert\PowerBug.exe logoff -scheduled -seconds 3600 -notray -nocancel -force`

This command simply powers off your computer:

`C:\Program Files\TempElert\PowerBug.exe PowerBug`

5.0 Remote Control Via TELNET

You can remotely control PowerBug by starting it as a service and setting the 'Allow remote control' option. You can control it by using PowerBug itself and selecting a remote computer, or you can control it by using telnet to the port where PowerBug listens to (default 3210).

For example TELNET [computername] 3210. You'll see a welcome message like this:

201 Welcome to PowerBug 3.0

PowerBug uses a protocol like FTP or SMTP with commands and reply codes. You enter a command and PowerBug will reply with '2xx message' on success or '5xx message' on error.

You can enter the following commands:

QUIT	Terminates the connection
HELP	Shows this help
PASSWORD p	Authenticates the client with a password
ACTION a	The action to perform (logoff, reboot, shutdown, PowerBug, standby, hibernate, lock, wol)
WHO w	Who must perform the action (local, remote)
WHEN w	When must the action be performed (immediate, scheduled, after_process)
SIMULATE s	Simulate the action (on, off)
COMPUTER c	The remote computer name
MAC m	The remote computer mac address (WOL)
IP i	The remote computer ip address (WOL)
SUBNET s	The remote computer subnet mask (WOL)
WARNING w	Show warning before doing the action (on, off)
WARNTIME w	The number of seconds to show the warning
MESSAGE m	The warning message
PLAYSOUND p	Play a sound when showing the warning (on, off)
SOUNDFILE s	The WAV file to play
RUNPRG r	Runs a program before doing the action (on, off)
PROGRAM p	The program to run
DIRECTORY d	The startup directory for the program
SCHEDULE s	The type of schedule (fixed_day, daily, day_of_month, after_x_seconds)
TIME t	The time when to do the action (hh:mm)
DATE d	The date when to do the action (dd/mm/yyyy)
DAYS d	The days of the week when to do the action (m, t, w, th, f, s, su)
WEEKS d	The weeks of the month when to do the action (1, 2, 3, 4, 5)
DAY d	The day of the month when to do the action (1-31)
WAIT w	The number of seconds to wait before checking the time
SECONDS w	The number of seconds to wait before doing the action
PROCESS p	Wait for process p to finish

FORCE f Force applications to close (on, off)
CANCEL c Allow the user to cancel the action (on, off)
SHOW Show current settings
VERSION Show current PowerBug version
DOIT Do the action
STOP Stops the current scheduled action

Example:

telnet [computername] 3210

201 Welcome to PowerBug 3.0
action logoff
250 OK
warning on
250 OK
message You will be logged off in 10 seconds
250 OK
warntime 10
250 OK
doit
250 OK
quit
201 Bye bye
Connection closed by foreign host.

6.1 System Tray Operation

When PowerBug is minimized or it has a scheduled action, it sits in the system tray. You can right click the icon, then a popup menu appears:

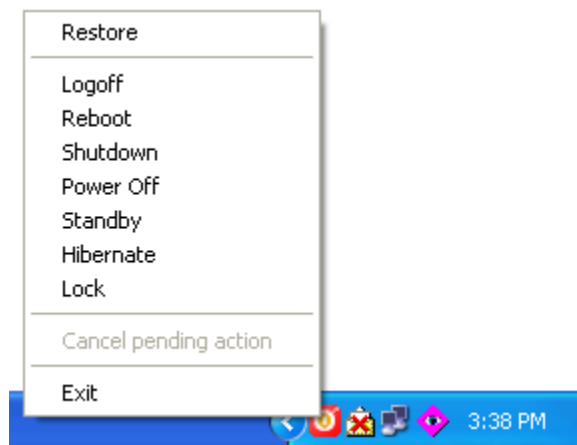


Figure 13

- Restore: Restores the main window and removes PowerBug from the system tray. Only available when not executing a scheduled action.
- Logoff/Reboot/Shutdown/PowerBug/Standby/Hibernate/Lock: Quickly performs the action requested.
- Cancel pending action: Cancels a scheduled action and restores the main window again. Only available when a scheduled action is executing and the 'Allow cancel' option is activated.
- Exit: Quits PowerBug

Appendix B

Email & cellular messaging providers and their email/messaging addresses

Please Note: While the SMTP email protocol is popular and easy to configure, it was not designed for paging and as such it is not time sensitive, there can be delays in the receipt of the email depending on the routing (this does not have anything to do with the software but the design of the protocol). It is important to test your email setup prior to relying on TempElertUSB to deliver any alert message, as email systems can routinely flag certain message types as spam or perform grey-listing, resulting in delays or missed messages.

TempElertUSB and it's representatives make no warranty as to the accuracy and completeness of this list, and is provided to our users as a starting point with which to begin testing of alerts. An updated list is maintained online at <http://notepage.net/sntp.htm>

***note: replace the "number" with your phone or pin number**

Company Name	SMTP email Format
3 River Wireless	phonenumber@sms.3rivers.net
ACS Wireless	phonenumber@paging.acswireless.com
Advantage Communications	10digitpagernumber@advantagepaging.com
Airtouch Pagers	10digitpagernumber@myairmail.com
Airtouch Pagers	10digitpagernumber@alphapage.airtouch.com
Airtouch Pagers	10digitpagernumber@airtouch.net
Airtouch Pagers	10digitpagernumber@airtouchpaging.com
AlphNow	pin@alphanow.net
Alltel	10digitphonenumber@message.alltel.com
Alltel PCS	10digitphonenumber@message.alltel.com
Ameritech Paging (see also American Messaging)	10digitpagernumber@paging.acswireless.com
Ameritech Paging (see also American Messaging)	10digitpagernumber@pageapi.com
American Messaging (SBC/Ameritech)	10digitpagernumber@page.americanmessaging.net
Ameritech Clearpath	10digitpagernumber@clearpath.acswireless.com
Andhra Pradesh Airtel	phonenumber@airtelap.com
Arch Pagers (PageNet)	10digitpagernumber@archwireless.net
Arch Pagers (PageNet)	10digitpagernumber@epage.arch.com
Arch Pagers (PageNet)	10digitpagernumber@archwireless.net
AT&T	10digit@txt.att.net
AT&T Free2Go	10digitphonenumber@mmode.com
AT&T PCS	10digitphonenumber@mobile.att.net
AT&T Pocketnet PCS	10digitphonenumber@dpcs.mobile.att.net
Beepwear	pagernumber@beepwear.net

BeeLine GSM	phonenumber@sms.beemail.ru
Bell Atlantic	phonenumber@message.bam.com
Bell Canada	phonenumber@txt.bellmobility.ca
Bell Canada	phonenumber@bellmobility.ca
Bell Mobility (Canada)	phonenumber@txt.bell.ca
Bell Mobility	number@txt.bellmobility.ca
Bell South (Blackberry)	number@bellsouthtips.com
Bell South	phonenumber@sms.bellsouth.com
Bell South	phonenumber@wireless.bellsouth.com
Bell South	phonenumber@blsdc.net
Bell South	phonenumber@bellsouth.cl
Bell South Mobility	phonenumber@blsdc.net
Blue Sky Frog	phonenumber@blueskyfrog.com
Bluegrass Cellular	phonenumber@sms.bluecell.com
Boost	phonenumber@myboostmobile.com
BPL mobile	phonenumber@bplmobile.com
Carolina West Wireless	10digitnumber@cwwsms.com
Carolina Mobile Communications	10digitpagernumber@cmcpaging.com
Cellular One East Coast	phonenumber@phone.cellone.net
Cellular One South West	phonenumber@swmsg.com
Cellular One PCS	phonenumber@paging.cellone-sf.com
Cellular One	10digitphonenumber@mobile.celloneusa.com
Cellular One	phonenumber@cellularone.txtmsg.com
Cellular One	phonenumber@cellularone.textmsg.com
Cellular One	phonenumber@cell1.textmsg.com
Cellular One	phonenumber@message.cellone-sf.com
Cellular One	phonenumber@sbcemail.com
Cellular One West	phonenumber@mycellone.com
Cellular South	phonenumber@csouth1.com
Centennial Wireless	10digitnumber@cwemail.com
Central Vermont Communications	10digitpagernumber@cvcpaging.com
CenturyTel	phonenumber@messaging.centurytel.net
Chennai RPG Cellular	phonenumber@rpgmail.net
Chennai Skycell / Airtel	phonenumber@airtelchennai.com
Cincinnati Bell Wireless	phonenumber@gocbw.com
Cingular	mobilenumber@mycingular.com
Cingular	mobilenumber@mycingular.net
Cingular	mobilenumber@mms.cingularme.com
Cingular	mobilenumber@page.cingular.com

Cingular	10digitphonenumber@cingularme.com
Cingular Wireless	10digitphonenumber@mycingular.textmsg.com
Cingular Wireless	10digitphonenumber@mobile.mycingular.com
Cingular Wireless	10digitphonenumber@mobile.mycingular.net
Cleartnet	phonenumber@msg.cleartnet.com
Comcast	phonenumber@comcastpcs.textmsg.com
Communication Specialists	7digitpin@pageme.comspeco.net
Communication Specialist Companies	pin@pager.comspeco.com
Comviq	number@sms.comviq.se
Cook Paging	10digitpagernumber@cookmail.com
Corr Wireless Communications	phonenumber@corrwireless.net
Delhi Aritel	phonenumber@airtelmail.com
Delhi Hutch	phonenumber@delhi.hutch.co.in
Digi-Page / Page Kansas	10digitpagernumber@page.hit.net
Dobson Cellular Systems	phonenumber@mobile.dobson.net
Dobson-Alex Wireless / Dobson-Cellular One	phonenumber@mobile.cellularone.com
DT T-Mobile	phonenumber@t-mobile-sms.de
Dutchtone / Orange-NL	phonenumber@sms.orange.nl
Edge Wireless	phonenumber@sms.edgewireless.com
EMT	phonenumber@sms.emt.ee
Escotel	phonenumber@escotelmobile.com
Fido	phonenumber@fido.ca
Gabriel Wireless	10digitpagernumber@epage.gabrielwireless.com
Galaxy Corporation	10digitpagernumber.epage@sendabeep.net
GCS Paging	pagernumber@webpager.us
German T-Mobile	number@@t-mobile-sms.de
Goa BPLMobil	phonenumber@bplmobile.com
Golden Telecom	phonenumber@sms.goldentele.com
GrayLink / Porta-Phone	10digitpagernumber@epage.porta-phone.com
GTE	number@airmessage.net
GTE	number@gte.pagegate.net
GTE	10digitphonenumber@messagealert.com
Gujarat Celforce	phonenumber@celforce.com
Helio	10digitphonenumber@messaging.sprintpcs.com
Houston Cellular	number@text.houstoncellular.net

Idea Cellular	phonenumber@ideacellular.net
Illinois Valley Cellular	10digitphonenumber@ivctext.com
Infopage Systems	pinnumber@page.infopagesystems.com
Inland Cellular Telephone	phonenumber@inlandlink.com
The Indiana Paging Co	last4digits@pager.tdspager.com
JSM Tele-Page	pinnumber@jsmtel.com
Kerala Escotel	phonenumber@escotelmobile.com
Kolkata Airtel	phonenumber@airtelkol.com
Kyivstar	number@smsmail.lmt.lv
Lauttamus Communication	pagernumber@e-page.net
LMT	phonenumber@smsmail.lmt.lv
Maharashtra BPL Mobile	phonenumber@bplmobile.com
Maharashtra Idea Cellular	phonenumber@ideacellular.net
Manitoba Telecom Systems	phonenumber@text.mtsmobility.com
MCI Phone	phonenumber@mci.com
MCI	phonenumber@pagemci.com
Meteor	phonenumber@mymeteor.ie
Meteor	phonenumber@sms.mymeteor.ie
Metrocall	10digitpagernumber@page.metrocall.com
Metrocall 2-way	10digitpagernumber@my2way.com
Metro PCS	10digitphonenumber@mymetropcs.com
Metro PCS	10digitphonenumber@metropcs.sms.us
Microcell	phonenumber@fido.ca
Midwest Wireless	phonenumber@clearlydigital.com
MiWorld	phonenumber@m1.com.sg
Mobilecom PA	10digitpagernumber@page.mobilcom.net
Mobilecomm	number@mobilecomm.net
Mobileone	phonenumber@m1.com.sg
Mobilfone	phonenumber@page.mobilfone.com
Mobility Bermuda	phonenumber@ml.bm
Mobistar Belgium	phonenumber@mobistar.be
Mobitel Tanzania	phonenumber@sms.co.tz
Mobtel Srbija	phonenumber@mobtel.co.yu
Morris Wireless	10digitpagernumber@beepone.net
Motient	number@isp.com
Movistar	number@correo.movistar.net
MTS	10digitphonenumber@text.mtsmobility.com
Mumbai BPL Mobile	phonenumber@bplmobile.com
Mumbai Orange	phonenumber@orangemail.co.in
NBTel	number@wirefree.informe.ca
Netcom	phonenumber@sms.netcom.no

Nextel	10digitphonenumber@messaging.nextel.com
Nextel	10digitphonenumber@page.nextel.com
Nextel	10digitphonenumber@nextel.com.br
Northeast Paging	number@pager.ucom.com
NPI Wireless	phonenumber@npiwireless.com
Ntelos	number@pcs.ntelos.com
O2	name@o2.co.uk
O2	number@o2imail.co.uk
O2 (M-mail)	number@mmail.co.uk
Omnipoint	number@omnipoint.com
Omnipoint	10digitphonenumber@omnipointpcs.com
One Connect Austria	phonenumber@onemail.at
OnlineBeep	10digitphonenumber@onlinebeep.net
Optus Mobile	phonenumber@optusmobile.com.au
Orange	phonenumber@orange.net
Orange Mumbai	phonenumber@orangemail.co.in
Orange - NL / Dutchtone	phonenumber@sms.orange.nl
Oskar	phonenumber@mujoskar.cz
P&T Luxembourg	phonenumber@sms.luxgsm.lu
Pacific Bell	phonenumber@pacbellpcs.net
PageMart	7digitpinnumber@pagemart.net
PageMart Advanced /2way	10digitpagernumber@airmessage.net
PageMart Canada	10digitpagernumber@pmcl.net
PageNet Canada	10digitpagernumber@e.pagenet.ca
PageOne NorthWest	10digitnumber@page1nw.com
PCS One	phonenumber@pcsone.net
Personal Communication	sms@pcom.ru (number in subject line)
Pioneer / Enid Cellular	phonenumber@msg.pioneeridcellular.com
PlusGSM	phonenumber@text.plusgsm.pl
Pondicherry BPL Mobile	phonenumber@bplmobile.com
Powertel	phonenumber@voicestream.net
President's Choice	10digitphonenumber@txt.bell.ca
Price Communications	phonenumber@mobilecell1se.com
Primeco	10digitnumber@email.uscc.net
Primtel	phonenumber@sms.primtel.ru
ProPage	7digitpagernumber@page.propage.net
Public Service Cellular	phonenumber@sms.pscel.com
Qualcomm	name@pager.qualcomm.com
Qwest	10digitphonenumber@qwestmp.com
RAM Page	number@ram-page.com
Rogers AT&T Wireless	phonenumber@pcs.rogers.com

Rogers Canada	10digitphonenumber@pcs.rogers.com
Safaricom	phonenumber@safaricomsms.com
Satelindo GSM	phonenumber@satelindogsm.com
Satellink	10digitpagernumber.pageme@satellink.net
SBC Ameritech Paging (see also American Messaging)	10digitpagernumber@paging.acswireless.com
SCS-900	phonenumber@scs-900.ru
SFR France	phonenumber@sfr.fr
Skytel Pagers	7digitpinnumber@skytel.com
Skytel Pagers	number@email.skytel.com
Simple Freedom	phonenumber@text.simplefreedom.net
Smart Telecom	phonenumber@mysmart.mymobile.ph
Solo Mobile	10digitphonenumber@txt.bell.ca
Southern LINC	10digitphonenumber@page.southernlinc.com
Southwestern Bell	number@email.swbw.com
Sprint	10digitphonenumber@sprintpaging.com
Sprint PCS	10digitphonenumber@messaging.sprintpcs.com
ST Paging	pin@page.stpaging.com
SunCom	number@tms.suncom.com
SunCom	number@suncom1.com
Sunrise Mobile	phonenumber@mysunrise.ch
Sunrise Mobile	phonenumber@freesurf.ch
Surewest Communicaitons	phonenumber@mobile.surewest.com
Swisscom	phonenumber@bluewin.ch
T-Mobile	10digitphonenumber@tmomail.net
T-Mobile	10digitphonenumber@voicestream.net
T-Mobile Austria	phonenumber@sms.t-mobile.at
T-Mobile Germany	phonenumber@t-d1-sms.de
T-Mobile UK	phonenumber@t-mobile.uk.net
Tamil Nadu BPL Mobile	phonenumber@bplmobile.com
Tele2 Latvia	phonenumber@sms.tele2.lv
Telefonica Movistar	phonenumber@movistar.net
Telenor	phonenumber@mobilpost.no
Teletouch	10digitpagernumber@pageme.teletouch.com
Telia Denmark	phonenumber@gsm1800.telia.dk
Telus	phonenumber@msg.telus.com
TIM	10digitphonenumber@timnet.com
Tracfone	10digitphonenumber@txt.att.net
Triton	phonenumber@tms.suncom.com
TSR Wireless	pagernumber@alphame.com
TSR Wireless	pagernumber@beep.com

UCOM	number@pager.ucom.com
UMC	phonenumber@sms.umc.com.ua
Unicel	phonenumber@utext.com
Uraltel	phonenumber@sms.uraltel.ru
US Cellular	10digitphonenumber@smtt.uscc.net
US Cellular	10digitphonenumber@email.uscc.net
US Cellular	10digitphonenumber@uscc.textmsg.com
US West	number@uswestdatamail.com
Uttar Pradesh Escotel	phonenumber@escotelmobile.com
Verizon Pagers	10digitpagernumber@myairmail.com
Verizon PCS	10digitphonenumber@vtext.com
Verizon PCS	10digitphonenumber@myvzw.com
Vessotel	phonenumber@pager.irkutsk.ru
Virgin Mobile	phonenumber@vmobl.com
Virgin Mobile	phonenumber@vxtras.com
Virgin Mobile Canada	10digitphonenumber@vmobile.ca
Vodafone Italy	number@sms.vodafone.it
Vodafone Japan	phonenumber@c.vodafone.ne.jp
Vodafone Japan	phonenumber@h.vodafone.ne.jp
Vodafone Japan	phonenumber@t.vodafone.ne.jp
Vodafone UK	phonenumber@vodafone.net
VoiceStream / T-Mobile	10digitphonenumber@voicestream.net
WebLink Wierless	pagernumber@airmessage.net
WebLink Wierless	pagernumber@pagemart.net
West Central Wireless	phonenumber@sms.wcc.net
Western Wireless	phonenumber@cellularonewest.com
Wyndtell	number@wyndtell.com