

Shutter User Manual

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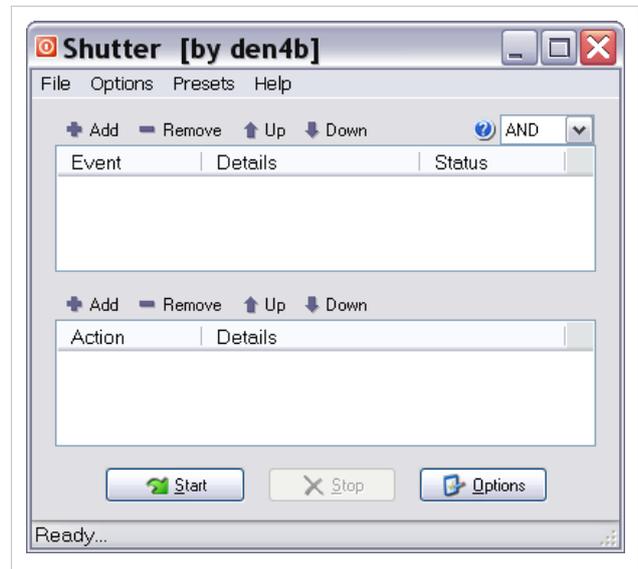
Step by Step

Shutter

Shutter is a powerful and flexible multipurpose task-launcher.

Despite its name, its use is not limited to shutting down a program or the PC: Shutter can wait for one or more events and then execute a lot of diverse actions, such as-

- Launch specified application(s)
- Close specified application window(s)
- Kill specified application(s) even if they are running in system tray.
- Play a custom sound
- Display a message on screen
- Disconnect the dial-up modem
- Log out from Windows account,
- Lock the desktop or start a screensaver.
- Shut down the PC, reboot, hibernate, sleep, etc.



Apart from a user-friendly and easy-to-use interface, Shutter also offers the following options:

- You can create links on Desktop, to execute any of the supported actions directly from the desktop.
- You can use Shutter's **Web Interface** to remotely execute any action.

You can also remotely see the run-time information about the computer: Logged In User, Up Time, List of Processes, Screenshot of a Desktop, plus Command Line Execution.

User Manual



Latest development version. Beware, some of the described features may be present only in the latest development version of the software. Also, the screenshots shown may be different from the interface you are using.

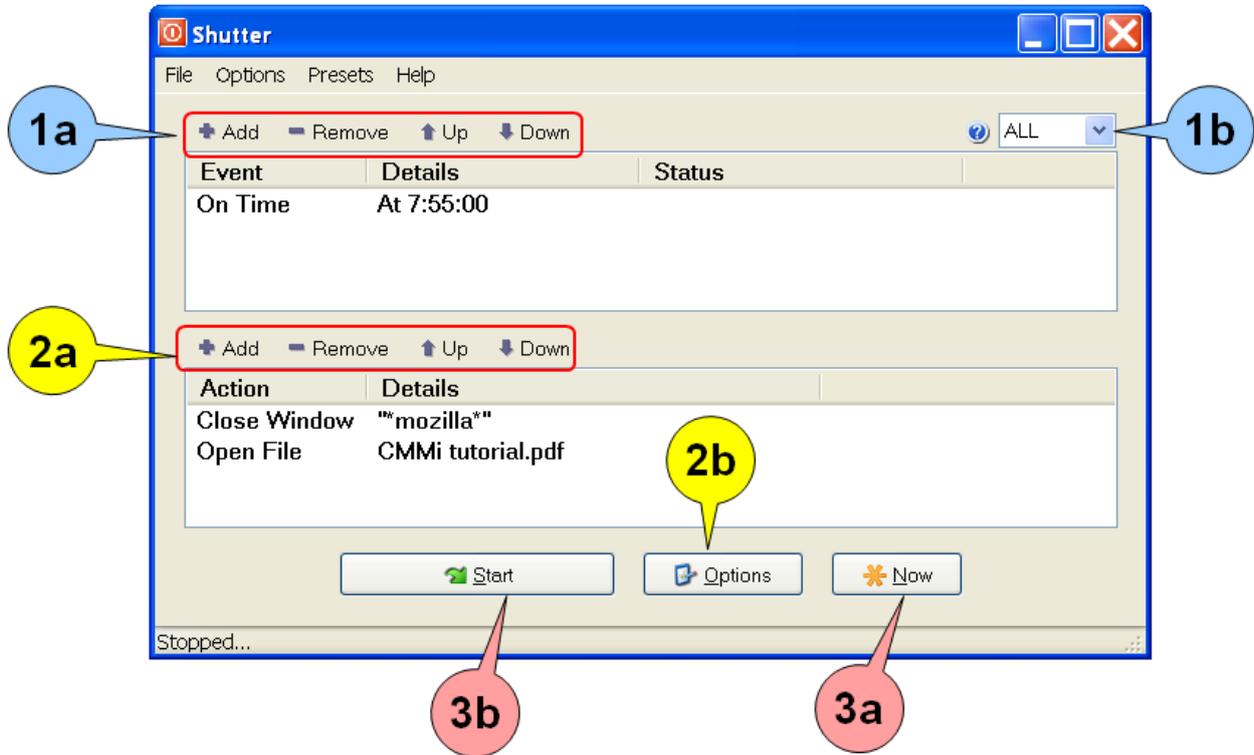
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Quick Guide

Shutter monitors the PC for multiple types of events, and when the specified conditions are met, it executes a wide range of Actions.

Shutter can be used in just three steps, as shown below.



In this example, Shutter will close Mozilla (Firefox) browser at 7:55 AM and launch the *CMMi Tutorial.pdf* file. In other words, fun time ends at 7:55 AM and serious work starts.

Let us see how to set Shutter.

Step	Action
1	<p>Add the Events (conditions to be monitored), and specify their interrelationship.</p> <p>a. Add new Events; remove selected Events, change the order of the Events</p> <p>b. Set the interrelationship between the Events</p>
2	<p>Add the Actions to be executed.</p> <p>a. Add the Actions to be executed, remove selected Actions, change the order of the Actions</p> <p>b. Configure options</p>
3	<p>Test the effect of Actions and then launch Shutter</p> <p>a. Test the effect of the Actions stack. (in this example, check whether Mozilla closes, and the pdf file opens properly).</p> <p>b. Launch Shutter (the actual monitoring starts now)</p>

To make this experience even better, we can add some more Actions (the **bold** words give a hint about which Action is used):

1. At 7:55, pop up a **message** "Last five minutes of browsing - Back to work soon!"
2. **Pause** for 5 minutes, and then
3. **Close** Mozilla (Firefox) **window**, and
4. **Open** the pdf **file** (with its associated application).

For more such applications, see typical uses article.

Step-by-step

The workflow of Shutter is a simple 3-step process:

1. Add events that are to be monitored, and
2. Add actions that are to be executed when the specified events occur.
3. Start monitoring for the specified events.

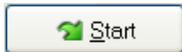
The details are as follows:

Step 1: Load Events

Events are usually based on periodic checking of a system state, execution state of a process, or system time.

- You can add multiple events, and also set the logical relationship between them.

Note that this step only loads the events; Shutter will not start monitoring for the event till you press the



button (see **Step 3**).

Step 2: Load Actions

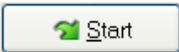
Actions are executed *one by one*, from top to bottom.

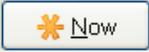
You can add as many actions as you want, but please be aware of the following factors:

- Each action can affect the execution of the other actions listed below it.
To avoid that, you may have to change the order of the Actions by moving them up/down.
- Some of these actions are *terminal*: They close Shutter, log out the Windows user or shut down the PC. For example: the **Shutdown** action.

Therefore, such Actions must be placed at the very end of the **Actions** stack. Otherwise the actions listed below them will *never* be executed!

Step 3: Start monitoring

Press the  button. Shutter starts monitoring for the events. The button changes to  . Press it if you want to stop Shutter in an emergency.

- Shutter also has a  button, which starts all actions without waiting for triggering the event-set.
This is useful to check how the specified actions would actually work.

Events

Below is a list of all available events.

Remember that Shutter is often used with a *set* of multiple events (rather than a single event); and these events have a pre-defined relationship between them.

Event	Definition	Typical uses
Countdown	User enters some amount of time (in terms of <i>Hours:Minutes:seconds</i>). Shutter counts down to zero. This Event is considered "triggered" when the timer reaches zero. <ul style="list-style-type: none"> This is the only event that is controlled by Shutter: All other events are external to Shutter, and Shutter only <i>monitors</i> them. 	<ol style="list-style-type: none"> If you suffer from RSI ^[1], set timer to take a break every few minutes and exercise your hands, shoulder and neck. Use Shutter as a count-down timer clock (to give alarm at the end of specified time). Play a pre-recorded sound every few minutes (to calm down a baby or a pet).
On Time	Event is triggered when the current time (as displayed in the system tray) reaches the specified time. Note: Prior to v3.00 Beta 35, the On Time event worked in the same manner as the Countdown event, counting down the initial time difference between the current time and the target time. However, that method prevented the On Time event from working correctly if the system time was changed or if Windows entered a suspended state.	<ol style="list-style-type: none"> Launch an application (e.g. a downloader) at certain time. Share your PC on LAN till a particular time, and then turn it off at certain time.
Winamp Stops	Event periodically checks the playback state of Winamp ^[2] . The event is triggered once it is detected that application is no longer playing the media. Note: Winamp Messaging API ^[3] is used to achieve this.	<ol style="list-style-type: none"> When the WinAmp playlist is over, pause for a specified time period and then play another playlist, or hibernate the PC.
CPU Usage	Periodically check the processor usage and trigger event when the usage stays above (or below) the specified mark for the specified amount of time.	<ol style="list-style-type: none"> Launch a CPU-intensive application (e.g. Blender rendering) to get the benefit of full CPU power. When CPU usage goes above certain threshold, pause the resource-intensive applications.
Network usage	Check the network's load (select from <i>total</i> , <i>upload only</i> , or <i>download only</i>); and if it falls below specified limit for the specified duration, then the event is triggered.	<ol style="list-style-type: none"> Start a downloader when the download is below a limit. Upload a large folder when the upload falls below certain point Pause file-transfers till the total traffic in the network falls below a certain limit.
User Inactive	Track the time of user's last mouse and keyboard activity. Trigger event when user is inactive for the specified period of time.	<ol style="list-style-type: none"> Play WinAmp when no one is using the PC (turn the PC into entertainment center). Launch a task that can otherwise slow down the PC.
Battery Low	Monitor power battery level and trigger event when level drops below specified level.	<ol style="list-style-type: none"> Take backup of critical data. Close specified applications gracefully. Remind the user to plug in the laptop charger.

Window Closes	<p>Monitor opened windows for the specified title match. Event is triggered when specified title does not match any of the opened windows.</p> <ul style="list-style-type: none"> The name is NOT case-sensitive. You can specify wildcards to find a <u>partial</u> match. For example, <i>*Firefox*</i>. <p>If you do not use wildcards, Shutter will look for an <u>exact</u> match (if the actual Window name has more characters compared to the specified string, Shutter will treat it as "not matching").</p> <p>Note: Be careful when specifying the window name: The text should match with what you see in the Title Bar of the application (the top bar of the application's window). Sometimes the Title Bar shows the file that is opened in the application, instead of the application's name.</p>	<ol style="list-style-type: none"> Warn the user that the desired application has stopped running. Launch the process <i>only if</i> the application is not running already (to avoid multiple instances running simultaneously)
Process Stops	<p>Monitor all processes that match the specified filename. Event is triggered when the specified filename is not found in the list of executing processes.</p>	<ol style="list-style-type: none"> Warn the user that the process has stopped. Launch the next process in sequence.
Ping Stops	<p>Ping ^[4] the specified host and trigger when host is not responding for the specified period of time. Useful for monitoring availability of network services.</p>	<ol style="list-style-type: none"> Warn the user that the remote PC is not communicating any more (either bad link or crash).
File Size Limit	<p>Periodically check the size of the specified file and trigger event when file reaches the specified size. Size "0" can be used to check whether file exists or not.</p>	<ol style="list-style-type: none"> Take a backup of the file. Warn the user that the file size has reached the limit.

References

- [1] http://en.wikipedia.org/wiki/Repetitive_strain_injury
 [2] <http://www.winamp.com/>
 [3] <http://forums.winamp.com/showthread.php?threadid=180297>
 [4] <http://en.wikipedia.org/wiki/Ping>

Actions

Below is the list of all available actions.

Shutdown ^(T)	Shutdown computer.
Reboot ^(T)	Reboot computer.
Logoff ^(T)	Log out currently logged in user.
Lock Workstation	Lock workstation.
Sleep	Put computer into the suspended state.(<i>Windows Vista</i> and <i>Windows 7</i> only) Note that usually the PC automatically enters the <i>Hibernation</i> state after default 3 hours, but some applications (such as recording or CD/DVD burning) can turn off the sleep timer to prevent the PC from entering the <i>Hibernation</i> state.
Hibernate	Put computer into the hibernated state. Tip: First, check if the <i>hibernate</i> option is enabled in your PC (Control Panel > Power Options > Hibernate tab)
Turn Off Monitor	Switch off the monitor.
Screen Saver	Turn on the screen saver. Tip: You can set a password to turn off your screensaver and start working on the PC again. This effectively makes your PC secure from intruders.
Volume	Mute or unmute the master volume. Note: At the moment this action does not work on <i>Windows Vista/7</i> [1].
Hang Up	Drop connection of the modem device.
Alarm	Show a simple dialog displaying the current time and play an alarm sound.
Message	Show message for the specified period time with option to stop execution of the rest of actions and option to restart the events.
Play Sound	Play specified sound file with ability to wait for the sound file to finish before continuing with the rest of actions.
Run Program	Run specified executable and optionally wait for it to finish executing before continuing with the rest of actions.
Open File	Open a specified file using shell. This can be either of the following: <ul style="list-style-type: none"> • URL, for example: http://www.den4b.com/ • Executable, for example: "notepad" • Normal file, for example: "Document.doc" or "Song.mp3"
Close Window	Close all windows that match the specified window title.
Kill Process	Terminate all processes that match the specified executable filename.
Utilities	This is a special type of action to control the workflow of Shutter. The options are: <ul style="list-style-type: none"> • Close application (Shutter) ^(T) - Typically to close Shutter after taking all the Actions listed before it. Effectively, Shutter runs just <u>once</u>: It waits for the events, executes the actions and then closes. • Restart events ^(T) - Shutter "arms" itself once again, and waits for the entire set of events once again. Effectively, Shutter runs the (<i>wait for events and then execute all actions</i>) cycle <u>endlessly</u>. • Pause execution - This can be used to introduce a waiting period before the next action is taken. For example, if one Action closes an application, wait till it closes gracefully; and only then execute the next Action.

^(T) Mark shows that this action is a terminal action, meaning that it may cause Shutter to terminate or otherwise stop the rest of actions from executing. You can use only ONE terminal action in the **Actions** pane, and it must be the last in the list of actions.

References

[1] <http://www.den4b.com/forum/viewtopic.php?id=816>

Interrelationship between Events

When you add multiple events to Shutter, their interrelationship becomes important. The Actions are executed only when the relationship between the specified events is satisfied.

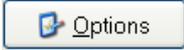
You can set any of the following relationships between the events:

- **ALL** - All events must be in triggered state together, monitored continuously.(This is the default choice)
- **AND** - Every event must be triggered once, independently of each other.
- **OR** - Any event must be triggered once.
- **1BY1** - Each event must be triggered once, one after another.

If you are not sure which logic to choose, simply use the default "**ALL**" logic which normally satisfies most scenarios.

Appendices

Program options

Shutter has multiple options (accessible from the **Options** menu or by pressing the  button at bottom).

The **Options** window has five tabs, as explained below:

Tab	Option	Remarks
General	Always on top of other windows	Keeps Shutter on top of the other windows on the desktop
	Autorun at Windows startup/logon	Starts Shutter automatically when you log in Windows, or start the PC.
	Increase the font size in tables	In case you find the font too small in tables
	Minimize on start of events	When the entire set of event triggers (including the interrelationship logic), Shutter will automatically minimize to the System Tray.
	Minimize when program starts	When Shutter starts, its GUI will not be seen: It automatically starts in minimized state (in the System Tray)
	Minimize when click on close button	When you click on the  button, the Shutter window will not close: It will be minimized (in the System Tray) instead.
	Start events when program starts	Normally, you have to start the <i>event-monitoring</i> manually, by clicking on the  button at the bottom of the Shutter window. But if you select this option, as soon as Shutter starts, the event-monitoring starts automatically.

Advanced	Disable balloon notification messages at Tray icon	When Shutter is minimized to System Tray, its icon  in the System Tray keeps popping up balloons with text-messages (e.g. "Events started"). If you want Shutter to operate silently, deselect this option.
	Allow only single instance of the application (needs restart)	By default, you can launch several instances (copies) of Shutter; and load different Events+Actions in each copy. These instances run independently of each other. However, if you want to force only a single copy of Shutter, deselect this option.
	Never show Tray Icon	<p>By default, each instance of Shutter will show an icon  in the System Tray when it is "minimized to tray". However, if your System Tray is cluttered because of that, then you can remove the Shutter icons from the System Tray by deselecting this option.</p> <ul style="list-style-type: none"> Note that without the icon, it is difficult to tell whether Shutter is currently running in your PC. Note also that without the Shutter icons, the System Tray will not be able to show the balloon text messages. <p>If you have lost an ability to open Shutter interface, you can disable this option by editing "Shutter.ini" file from the installation folder. First, terminate any instances of Shutter via the Task Manager. Then, edit the following line in "Shutter.ini":</p> <pre>HideTrayIcon=0</pre>
	Stop events when the computer is going to hibernate/sleep; and resume when computer wakes up.	<p>By default, the even-monitoring is going on even when the computer is in hibernate/sleep mode. However, if the event-set triggers during hibernate/sleep mode, the Actions cannot be launched.</p> <p>For example, if a count-down timer reaches zero when the PC is in hibernate/sleep mode, the Actions will fail to launch.</p> <p>Even when the computer wakes up, the Actions will not be launched. Thus one cycle of events is unable to start actions.</p> <p>You may want Shutter to suspend the count-down, and resume when the PC wakes up again. For that, deselect this option.</p> <ul style="list-style-type: none"> Note that some events (e.g. On Time event) cannot be postponed till the PC wakes again.
Web Interface	These options are covered in the Web Interface article.	
Protection	Enable	<p>If your PC is shared by multiple users, they can change Shutter settings to access it remotely.</p> <p>To prevent such unauthorized access, enable the Protection option, and then set a password.</p>
	Password	Set a strong password ^[1] and note it down in a secure place.
	Repeat	

References

[1] http://en.wikipedia.org/wiki/Strong_password

Run as service

There is no native or easy way to make Shutter run as a service. This is because service applications are different from normal user applications (from programming point of view) and would have to be written differently. But, this doesn't mean that there cannot be any workaround. Below is a list of methods which worked for some users, but note that they are not officially supported and cannot be guaranteed to work.

Windows tools

Windows Resource Kit provides two utilities that allow you to create a user-defined service for Windows applications. **Instrsrv.exe** installs and removes system services from Windows NT and **Srvany.exe** allows any Windows NT application to run as a service.

- How To Create a User-Defined Service ^[1]
- Windows Server 2003 Resource Kit Tools ^[2]

Third party tools

There are 3rd party tools exist that can run any application as a service, which will be more intuitive but unfortunately not free, for example: **Any2Service**, **FireDaemon** .

Any2Service can be downloaded from here:

- <http://www.snapfiles.com/get/any2service.html>
- <http://www.softpedia.com/get/System/System-Miscellaneous/Any2Service.shtml>

FireDaemon can be downloaded from here:

- <http://www.firedaemon.com/>

User notes

You must NOT allow the service to interact with the desktop. If you do allow interaction, Shutter will close after a user logs off, leaving the system running.

References

[1] <http://support.microsoft.com/kb/137890>

[2] <http://www.microsoft.com/downloads/details.aspx?familyid=9d467a69-57ff-4ae7-96ee-b18c4790cffd&displaylang=en>

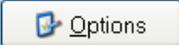
Running remotely (Web interface)

Shutter exposes some of its functionality through the Web Interface, letting users control their computer remotely from another computer.

Configuration

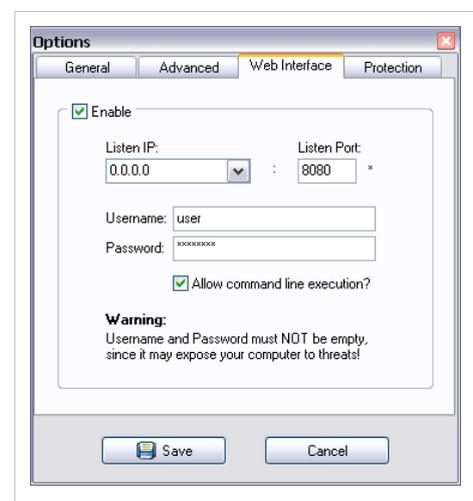
Steps below outline how to successfully setup the Web Interface.

Enable Web Interface

Open Options via the  button or from the main menu and navigate to the tab called "Web Interface". All of the settings will be disabled (grayed out) by default. Put a tick mark on the "Enable" check box to enable the Web Interface and its configuration.

Configure Web Interface

Listen IP and **Listen Port** parameters define IP address and Port number through which Web Interface will be accessible. Port number can be any numeric value in range 0 to 65535, but it is recommended to use values above 1024 as many of the the ports below this value are reserved by the system and standard applications. Choice of the IP address depends on the desired accessibility of the Web Interface.



IP address	Desired accessibility
0.0.0.0	Allow access from all available network interfaces (default).
127.0.0.1	Allow access only from the local machine.
X.X.X.X	Any other configuration will allow access from the specified IP address.

To check whether specified **IP** and **Port** parameters are acceptable press "check port" button.

Listen IP: : Listen Port: 

- For example, if you set IP address to 127.0.0.1 and port 8080, you will access the web interface in your browser via URL: `http://127.0.0.1:8080/`

Username and **Password** can be anything (however, always use a strong password ^[1]). These will be required to access the Web Interface from a remote PC.

- **Short or easy to guess Password can introduce a security risk so be careful while selecting your password!**

Allow command line execution will allow users to execute arbitrary commands on the host machine.

- **Command line execution should be used with caution!**

Configure Firewall

Before you can successfully use Shutter's Web Interface you need to make sure that that remote machine can access your host machine. Usually host machine will protected by Firewall ^[1] software, hence, blocking the remote access. You need to identify the the Firewall software which is running on your host machine and enable access to the specified Web Interface IP:Port address. To start with, Windows (XP or later version only) has its own Windows Firewall ^[2]; but when you install an antivirus software, it takes over with its own firewall.

Pitfalls

If you are planning to run multiple instances of Shutter and use Web Interface at the same time you should be aware that every instance of Shutter will try to start up its own Web Interface service. This will result in the first instance successfully activating the Web Interface service while other (later) instances failing with error message *"Could not bind socket. Address and port are already in use"*.

To continue using multiple instances of Shutter you need to create a dedicated copy of Shutter for running the Web Interface service and use a separate copy for running multiple instances without the Web Interface.

References

- [1] [http://en.wikipedia.org/wiki/Firewall_\(computing\)](http://en.wikipedia.org/wiki/Firewall_(computing))
 [2] http://en.wikipedia.org/wiki/Windows_Firewall

Typical uses

Typical uses of shutter

In this section, we will see examples of how Shutter can be used.

N	Task	Events	Actions	Other settings
1	If you suffer from RSI, set timer to take a break every few minutes and exercise your hands, shoulder and neck.	Countdown	1. Pop up "Exercise NOW!" message 2. Pause for 5 minutes 3. Restart events	
2	Use Shutter as a count-down timer clock (to give alarm at the end of specified time)			
3	Play a pre-recorded sound track every few minutes (to calm down a baby or a pet).			
4	Launch an application (e.g. a downloader) at night to avail of internet free hours.			
5	Share your PC on LAN till a particular time, and then turn it off			
6	When the WinAmp playlist is over, pause for a specified time period and then play another playlist, or hibernate the PC.			
7	Wait till CPU usage drops below a limit for a specified period and then launch Blender ^[1] /Maya ^[2] rendering task			
8	Play WinAmp when no one is using the PC for 1 minute (turn the PC into entertainment center automatically).			
9	When battery is low, take backup of critical data.			
10	When battery is low, close specified applications gracefully (allow it to finish its closing tasks rather than crash)			
11	When battery is low, remind the user to plug in the laptop charger.			

12	Warn the user that the desired application has stopped running.			
13	Launch the process only if the application is not running already (to avoid multiple instances running simultaneously)			
14	When a process is over, launch the next process in sequence.			
15	Warn the user that the reote PC is not communicating any more (either bad link or crash).			
16	When a file size exceeds a limit, take a backup of the file.			
17	When a file size exceeds a limit, warn the user that the file size has reached the limit.			
19				
20				

References

[1] <http://www.blender.org/>

[2] <http://usa.autodesk.com/adsk/servlet/pc/index?siteID=123112&id=13577897>

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