

20 tools that every Sysadmin needs to know

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Sysadmin or the system administrator is responsible for the entire system he manages from troubleshooting, testing, communicating and fixing systems so that they run "well". In order to do so, they must hold back the necessary tools.

Using the right tools for your career will save many hours of hard work, boring. If you are a Sysadmin, make sure you know or are using the 20 tools we have listed below.

WireShark



<http://www.wireshark.org/>

Wireshark is the most important and popular network protocol analysis tool in the world. It allows you to see what's happening on the network at the micro level. This is the standard applied in many industries and educational institutions. Wireshark works multi-platform and works on macOS, Windows, and Unix.

1. Use Wireshark to analyze data packets in the network

FileZilla



<https://filezilla-project.org/>

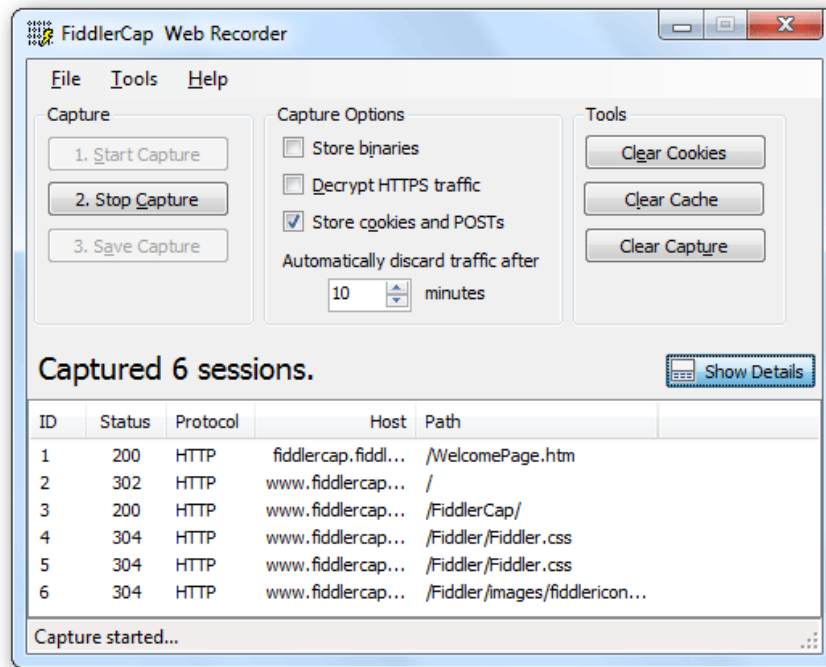
FileZilla is an FTP client and FTP server, with GPL license. It is able to connect to the SSH server securely. FileZilla is a great choice if you need to access the client comfortably, with GUI interface instead of CLI.

1. Instructions for setting up individual FTP Server with FileZilla

Fiddler

<http://www.telerik.com/fiddler>

Fiddler is a proxy server, running locally, allowing developers to debug web applications. If you have multiple applications or different processors that can change the values in a form, it will show the output when converting. If you are working with a remote API, you can also compose and redo requests if needed.



Sysinternals Suite



<http://technet.microsoft.com/en-us/sysinternals/bb545021.aspx>

Sysinternals Suite is the most commonly used Sysadmin toolkit for file, drive, network, process management, security and system information collection on Windows servers. One of the most popular and immediately useful utilities is Autoruns.exe, which helps identify automatic startup programs.

Mosh

<http://mosh.mit.edu/>

SSH users will get used to generating errors during remote sessions, a problem with WiFi that will cause work in progress to crash. Mosh is a secure alternative protocol that allows recovery of sessions as well as improved performance in general. Mosh is available for almost any platform, including plugins on Chrome.

```
[mosh]
mosh: Last contact 10 seconds ago. [To quit: Ctrl-^ .]
Mosh Web site ideas
* What should it look like?
** Ideas
*** Boring free software Web site...
*** Old-timey newspaper: "Amazing remote shell program sweeps nation!!!"
*** Make it look like a fake startup company. <-- Let's go with this.
* Benefits of Mosh
** Roam across Wi-Fi networks or to cell without dropping connection.
** More pleasant to type -- intelligent local echo is instant.
** No need to be superuser to install.
** Mosh doesn't fill up buffers, so Ctrl-C works quickly on runaways.
** Designed from scratch for Unicode; fixes bugs in SSH, other terminals.
** Free / open-source software.
-UU-;***--F1 site.txt All L19 (Org)-----
```

Autossh

<http://www.harding.motd.ca/autossh/>

Designed for SSH tunnels rather than interactive sessions. Autossh will restart the session, the SSH tunnel is broken. If you want a permanent session, use it with "screen".

Cliforgot



cliForgot

<http://cliforgot.com>

Create a complete command line, complete options for many Windows system administration commands. These are documents that can be copied and pasted.

Clonezilla



<http://clonezilla.org/>

If you are managing and providing resources for a large number of computers, creating a main image and pushing it to all target machines is what Clonezilla will do. Clonezilla's multi-cast feature allows updating multiple parallel machines at the same time, with a large amount of data.

Clusto



<https://github.com/clusto/clusto>

Clusto is a Python-based server cluster management tool, allowing you to maintain an interface to interact with your infrastructure. Clusto stores data in any database that you can interact with via SQLAlchemy, reducing time and effort because you can start with everything you have on the spot.

Ansible



<http://www.ansible.com>

Ansible makes automation of IT provisioning tasks the easiest. Ansible Playbooks is a programming method that combines commands to run, then can execute them on any number of servers you are connecting via SSH.

Chef



CHEF™

<http://www.opscode.com/chef/>

Chef helps automate your server infrastructure through the Chef client installed on each network node. The client will periodically probe the central Chef server and check the internal configuration based on the guided configuration, if any differences are found it will run the commands to bring them back to the correct configuration. Chef's ability to check the correctness of configuration is very useful in quick recovery if manual changes are made by Sysadmin.

Puppet



<http://puppetlabs.com/>

Puppet allows declaring the configuration of servers through their Ruby DSL. If you already know Ruby, use Puppet quite simply, easily manage any number of servers. Puppet also provides a pre-configured virtual machine for you to study and try if needed.

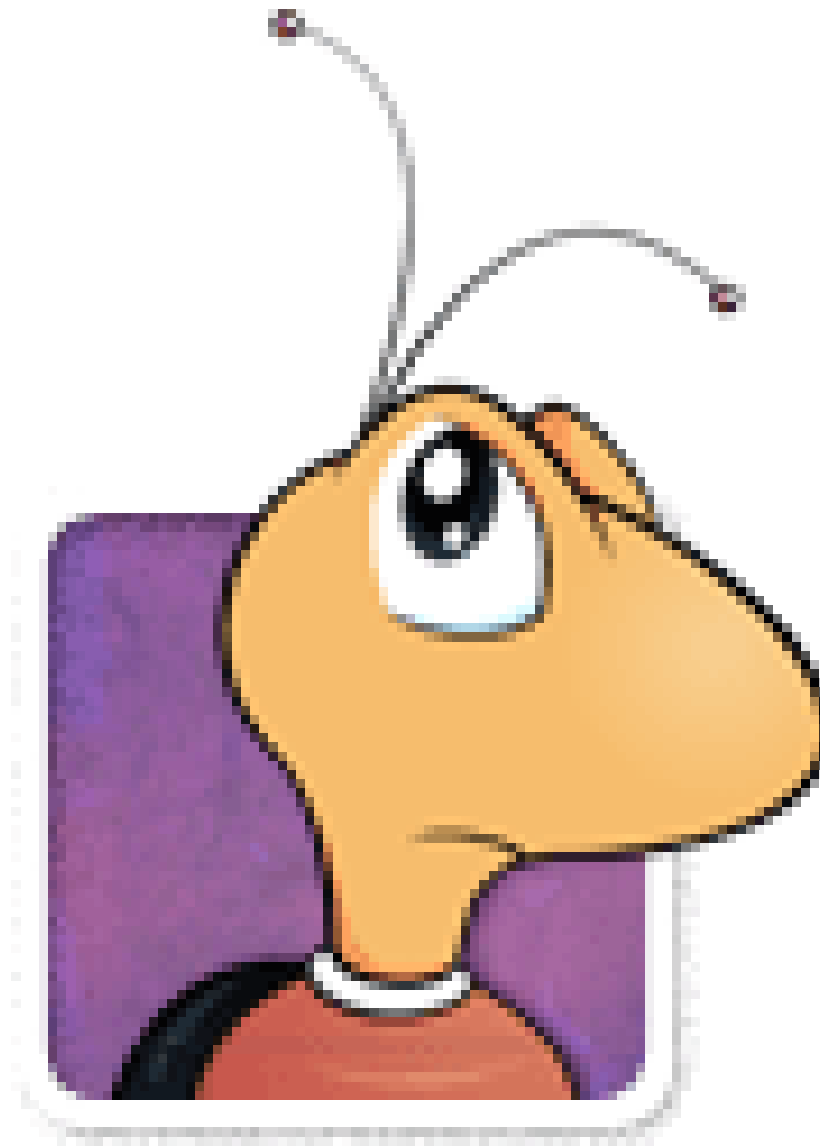
Dnsmasq



<http://www.thekelleys.org.uk/dnsmasq/doc.html>

Dnsmasq is a compact DNS decoder for local area network, you can use it instead of BIND or other "heavy" servers. This tool is ideal for use in low resource environments, such as routers or firewalls. It stores local requests but responds back to the DNS provider.

Bugzilla



<http://www.bugzilla.org/>

Used primarily to report and handle software bugs, Bugzilla has been extended to allow quality assurance management, submit and review patches. Bugzilla integrates with many source control systems, allowing the establishment of two communication ways to close errors with commitments, etc.

Sysdig



Found an issue? Dig in.

<http://www.sysdig.org/>

Sysdig is an open-source, system-level management tool that allows capturing, filtering and saving the various processes running on Linux machines at any point. Sysdig does some common tasks like tracking any file that is open in a folder, in real time, easily. The Lua script can be used to modify and extend Sysdig's basic functions.

TreeSize



http://www.jam-software.com/treesize_free/

TreeSize is the NTFS file size viewer, which helps visualize the amount of space that the file will use in Windows Explorer. TreeSize works on the target file's Master File Table, allowing you to read the results faster without having to view the content.

7-Zip



<http://www.7-zip.org/>

Open source decompression software, works very fast on any large .zip file and can create self-extracting files in .7z format.

Notepad ++



<http://notepad-plus-plus.org/download/>

Great source code editor, regular expression support, syntax highlighting and tabbed interface. If you move between computers, try using the portable version of Notepad ++, which can run from USB or shared drives.

KeePass



<http://keepass.info/>

Open source password manager, KeePass lets you create strong, random passwords for each website or application. Safe storage, KeePass allows you to maintain secure passwords without having to remember hundreds of 20-character sequences plus passwords or even worse - type them out. If you need to share password files with others or access from multiple locations share that file in DataAnywhere.

Netcat

<http://netcat.sourceforge.net/>

Netcat is likened to the "swiss-army knife" of the network utility, which is useful for anything related to sending or receiving network gate information.

For example: If you need a one-shot webserver on port 8080

```
{echo -ne "HTTP / 1.0 200 OK\r\nContent-Length: $(wc -c
```

```
% echo "GET / HTTP/1.0\n" | netcat localhost 80

HTTP/1.1 200 OK
Date: Sat, 07 Jan 2006 08:43:27 GMT
Server: Apache
Last-Modified: Wed, 28 Dec 2005 08:09:31 GMT
ETag: "13c6e-14-lea644c0"
Accept-Ranges: bytes
Content-Length: 20
Connection: close
Content-Type: text/html

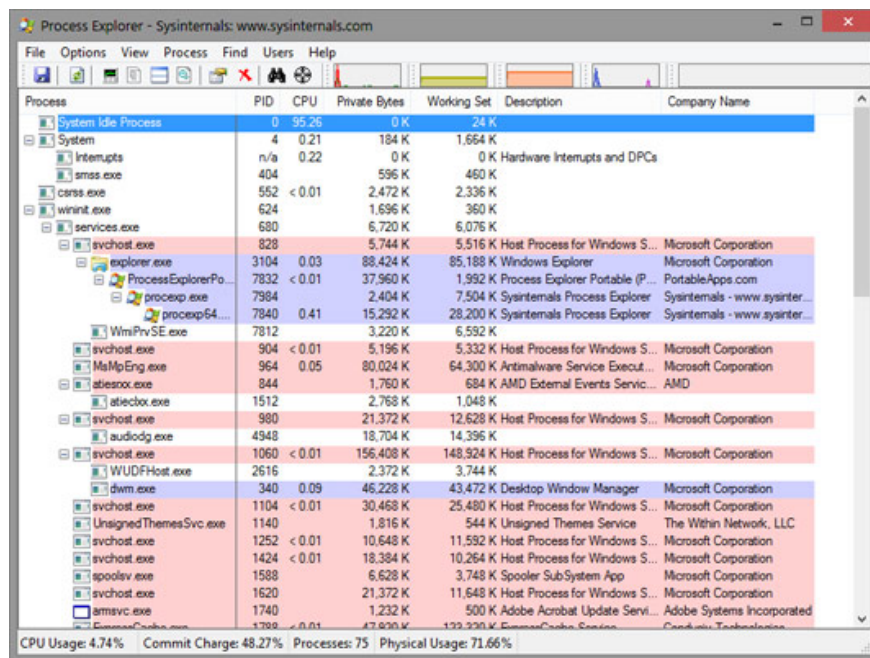
nothing to see here

% █
```

Process Explorer

<http://technet.microsoft.com/en-us/sysinternals/bb896653.aspx>

Monitor, identify, start and stop processes that need to be manipulated on a Windows machine. In addition, this tool is also great if used to track memory leaks and find fake processes.



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