Windows

About

Overview of building and installing FreeSWITCH™ on Windows platforms.

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Simple Installation (Precompiled Binaries)

Freeswitch Installer .msi

The binary MSI installer is built each weekend from Git head, includes default modules and 8KHz sounds, and is available for both x86 (32-bit) and x64 (64-bit).

Custom FreePBX and Fusion PBX Installers

There are currently no custom installers available. The one previously listed on this page no longer exists.

Install from Source

Before proceeding you should decide what directories to load FreeSWITCH into. The source and binaries can go into separate directories. For instance, c:\source and c:\freeswitch.

Git Clients for Windows

To obtain the most up-to-date FreeSWITCH version, a Git client must be installed. The mSysGit Git client for Windows works well. Additional information is here.

> On Windows you must Select **CheckOut as-is, Commit as-is** in order to Set core.autocrlf False.

Once Git is installed, the FreeSWITCH source can be downloaded from the Git Bash command line, for instance:

```
git clone https://stash.freeswitch.org/scm/fs/freeswitch.git C:/FS_GIT/
```

- Verify the core.autocrlf values type on *git config --get-all core.autocrlf* is false

TortoiseGit for Windows GUI Tool

TortoiseGit is an optional Front-End GUI to the Git client previously installed.

- TortoiseGit x64 and x32

> Check the TortoiseGit general settings for the location of the Git client. *msysgit -> Git.exe Path* otherwise set it, i.e., *C:\Program Files (x86)\Git\bin*.

Once TortoiseGit is installed, follow these steps:

BE SURE TO VERIFY AUTOCRLF!

- See the screen shot below. To check the actual .gitconfig file select edit global config to verify.
- If you do not have this properly set the line endings will be incorrect and your build will fail.

- I've see the GUI not update the actual .gitconfig file so that is why it is good to verify it.
- Open the Windows Explorer
- Navigate to an appropriate folder (like My Documents)
- Create a new folder named "FreeSWITCH"
- Set autocrlf=false otherwise the gawk scripts will fail!
- Right-click the "FreeSWITCH" folder and click on "Git Clone"
- The clone will take several minutes.

When the clone is finished, you can check the status by right-clicking and selecting properties on the cloned folder, and selecting the Git tab. You'll see something like:

```
HEAD:              3c66b497d66ae180de30bffe449d0421f5d16221
                     S-2784, missing incoming calls to one interfacename
                     Giovanni Maruzzelli
                     2010-10-29 01:57:37


 Last Modified:    3c66b497d66ae180de30bffe449d0421f5d16221
                     skypopen: fix FS-2784, missing incoming calls to one interfacename
                     Giovanni Maruzzelli
                     2010-10-29 01:57:37
```

Notes On Building

To compile FreeSWITCH on Windows, you will need Visual Studio 2008, 2010 full or Express version.

NOTE (1): There is a solution file specifically for VC++ 2008, 2010 Express. If you open the wrong solution file you will need to click "OK" about 65 times to get through the "solution folders not supported" messages.

NOTE (2): When building Freeswitch using VC++ 2008, 2010 Express you will need to 'remove' from the build list "mod_managed", since that requires C# which is not part of VC++ 2008, 2010 Express.

NOTE (3): When building using VC++ 2008, 2010 Express to remove the warnings about 64-bit support the Windows SDK Version 7.1 can be installed after VC++ 2008, 2010 Express has been installed.

NOTE (4): You will need to 'Remove' mod_cepstral unless you have the SDK installed.
To 'remove' modules from the build, just right click on the module name in the Solution Explorer, select Unload Project.

Compiling

- Open Freeswitch.2008.sln or Freeswitch.2010.sln depending on your Visual Studio version (or Freeswitch.2008.express.sln, Freeswitch.2010.express.sln if using VC++ Express Edition)
- Select whether you want a Release or Debug build and Win32 or x64
- Right click the main solution node at the top of the Solution Explorer
- Right click and select Build

Note that building for Windows within a tree that has previously been built for a different platform will result in numerous errors and build failures. To resolve, delete the following generated files:

- libs/apr/include/apr.h
- libs/js/config.h
- libs/js/src/jsautocfg.h
- libs/js/nsprpub/pr/include/prcpucfg.h
- libs/iksemel/include/config.h
- libs/xmlrpc/xmlrpc_config.h
- libs/libsndfile/src/sfconfig.h; also rename libs/win32/libsndfile/config.h to libs/win32/libsndfile/sfconfig.h
- libs/sofia-sip/libsofia-sip-ua/su/sofia-sip/su_configure.h

Alternatively, right click on the main Solution node and select Clean.

Then Rebuild the solution.

Building under VS 2008 may require that you disable "Enable Minimal Rebuild" in the properties pane for FreeSwitchCoreLib project if VS reports an internal compilation error in SimpleGlob.h.

You may also need to "Enable default libraries" in the properties pane for XML Interfaces\mod_xml_rpc if VS complains of numerous unresolved external symbols, e.g., _memset, _strcmp.

You may also have to disable your virus scanner(AVG2011, Avast) in case you have gawk failures (resulting in missing .h files), remember to turn it back on after! (Had this issue on Win 7 64bit)

After following the instructions above to build for Windows, you will need to delete "libs/js/nsprpub/pr/include/prcpucfg.h" and rerun "./bootstrap.sh" before building for another platform.

Building The Installer

The above steps produce a Debug or Release version of FreeSWITCH in the <git dir>/Win32/Release or Debug directories.
To build the FreeSWITCH install package:

- Use the full VS 2010, Express version will not build Installer version
- This requires you to install WIX 3.0 or later. WIX
- set the Solution Configuration to Release and right click on Setup in the Solution Explorer. This creates the FreeSWITCH.msi file in <git dir>/w32/Setup/bin/<platform>/release.

Note - currently (as of September 2012), there is an art (or rather a knack) to building the installer. You need to build for w32 first; *then* you can build the Installer (using either the x86 Setup or x64 Setup targets). If you don't do this w32 build first, the sound files will not be where the Installer build file expects them to be, and an x64 installer build will fail.
You *could* hack the x64 Setup file's pre-build properties to change the sound file command from ..w32/Release to x64/Release, but it's easier just to do the builds in this order.
As Jeff Lenk said on the -users list: "At this time the installer is designed to require the 32 bit version to be run first which satisfies the sound file requirements."

Running FreeSWITCH

If you are using Windows or other firewall make sure you add FreeSWITCH as an exception otherwise no incoming SIP connections will work.

Basic Commands

All of the console commands are covered on this wiki page: Core Commands

Getting Started and Basic Configuration

Finally, the Getting Started wiki page has some useful extensions to try out Some stuff to try out! The default configuration includes 20 endpoint definitions in %FS%\conf\directory\default\ (1000-1019).xml. More information on endpoints: User Configuration

See here to configure a trunk (gateway) - Sample Gateway Configuration

And to dial out via your newly created gateway - Dialing out via Gateway

Finally, receiving inbound calls from your gateway - Receiving an inbound call from a Gateway

Path Separator

Although Windows generally uses the backslash character as the path separator, all modern versions of Windows support using the forward slash as well. Internally FreeSWITCH uniformly uses the forward slash character for path separation. In your configuration files use the forward slash

and not a back slash:

> **Use Forward Slash**
>
> ```
> <action application="playback" data="c:/path/to/soundfile.wav"/>
> ```

Email Voicemail

FreeSWITCH on Windows supports sending email notifications of voicemail via SMTP from Windows.

You'll need to change a value in *prefix*/conf/autoload_configs/switch_conf.xml

The parameter, **mailer-app**, defaults to **sendmail**. This needs to be changed to **msmtp**

```
<param name="mailer-app" value="msmtp"/>
```

You will also need to download a sendmail clone for Windows (msmtp): http://msmtp.sourceforge.net/index.html. Download and copy the .exe to %winddir%\system32. You'll need to create a small config file for smtp credentials (host name, authentication, tls, etc.) in %USERPROFILE%\Application Data\ called "msmtprc.txt". Below is a sample copy of this file:

```
####################################
# The SMTP server of the provider.
account provider
host smtp.myisp.com
from john@myisp.com
auth login
user johndoe
password mypassword

# Set a default account
account default : provider
####################################
```

> If you plan to send email via your Gmail account you'll have to follow a guide similar to this one for configuring Gmail's signed server certificate (you have to use TLS with Gmail).

Once configured your msmtprc.txt file should look something like this one:

```
#####################################
account gmail
host smtp.gmail.com
auth on
user jdoe@gmail.com
password mypassword
tls on
tls_starttls on
tls_trust_file "C:\Documents and Settings\jdoe\Application
Data\ThawtePremiumServerCA_b64.txt"

port 587

from jdoe@gmail.com
maildomain gmail.com
account default : gmail
#####################################
```

Spanish FreeSWITCH Windows Guide

The Spanish language version of installing FreeSWITCH 1.0.4 on Windows Vista is no longer available.