

# Installing Jenkins as a Windows service

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## Install Jenkins as a Windows service

**NOTE:** if you installed Jenkins using the windows installer, you shouldn't need to do anything else here because the windows installer automatically runs Jenkins as a windows service.

First, you need to start Jenkins before installing it. This can be done from [JNLP](#), or by running "java -jar jenkins.war".

Now connect to Jenkins by going to the following URL <http://<hostname>:8080/>

Once Jenkins is started this way, look for the "Install as Windows Service" link in the "Manage Jenkins" page (requires [Microsoft .NET framework version 2.0](#)):

**Jenkins** search    ?

Jenkins ENABLE AUTO REFRESH

[New Job](#)

[Manage Jenkins](#)

[People](#)

[Build History](#)

## Manage Jenkins

[Configure System](#)  
Configure global settings and paths.

[Reload Configuration from Disk](#)  
Discard all the loaded data in memory and reload everything from file system. Useful when you modified config files directly on disk.

[Manage Plugins](#)  
Add, remove, disable or enable plugins that can extend the functionality of Jenkins.

[System Information](#)  
Displays various environmental information to assist trouble-shooting.

[System Log](#)  
System log captures output from `java.util.logging` output related to Jenkins.

[Load Statistics](#)  
Check your resource utilization and see if you need more computers for your builds.

[Jenkins CLI](#)  
Access/manage Jenkins from your shell, or from your script.

[Script Console](#)  
Executes arbitrary script for administration/trouble-shooting/diagnostics.

[Manage Nodes](#)  
Add, remove, control and monitor the various nodes that Jenkins runs jobs on.

[Install as Windows Service](#)  
Installs Jenkins as a Windows service to this system, so that Jenkins starts automatically when the machine boots.

[Prepare for Shutdown](#)  
Stops executing new builds, so that the system can be eventually shut down safely.

**Build Queue**  
No builds in the queue.

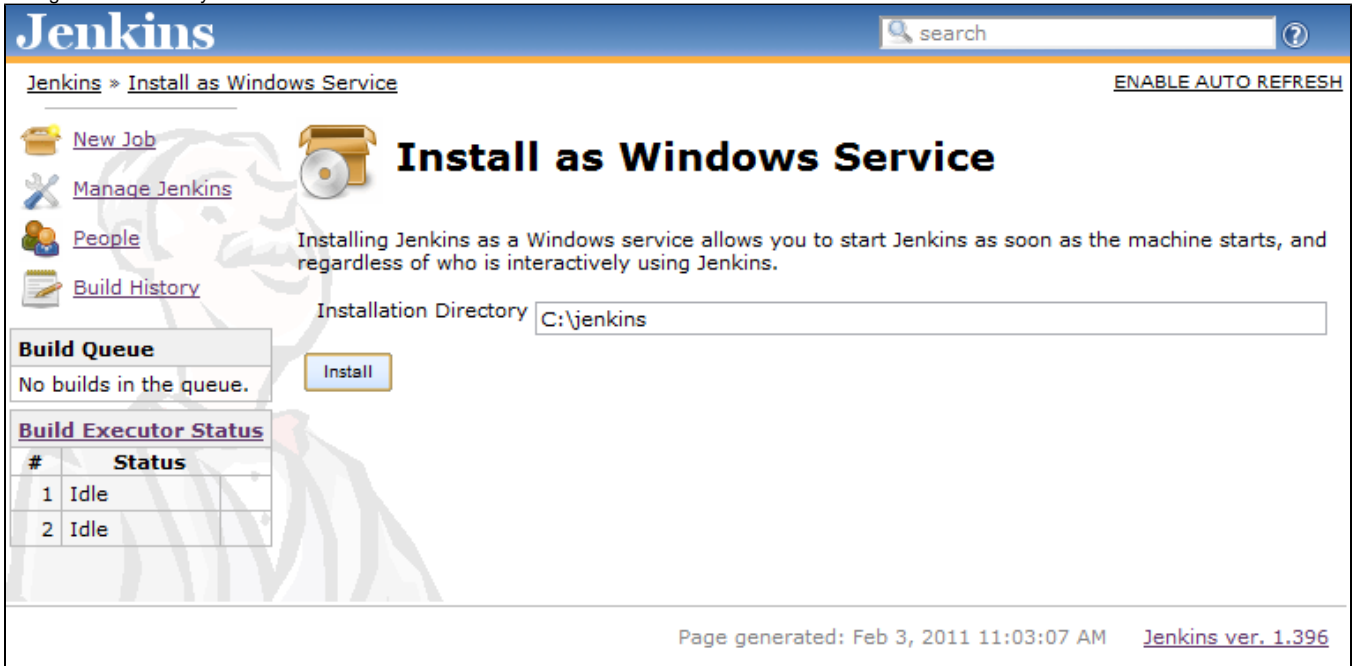
**Build Executor Status**

#	Status
1	Idle
2	Idle

Page generated: Feb 3, 2011 10:25:08 AM [Jenkins ver. 1.396](#)

**NOTE:** The "Install as Windows Service" link indicated above will not appear if Jenkins is already running as a service on the machine. You can verify that Jenkins is running as a service by launching the Services app from the Windows Start Menu and looking for a running service called "jenkins" among the list of all windows services running on the machine.

Clicking this link shows you the installation screen:



The screenshot shows the Jenkins web interface for the 'Install as Windows Service' page. The page title is 'Jenkins' and the breadcrumb is 'Jenkins » Install as Windows Service'. There is a search bar and a link to 'ENABLE AUTO REFRESH'. The main heading is 'Install as Windows Service' with a CD icon. Below the heading, there is a description: 'Installing Jenkins as a Windows service allows you to start Jenkins as soon as the machine starts, and regardless of who is interactively using Jenkins.' An 'Installation Directory' field contains the text 'C:\jenkins'. An 'Install' button is visible. On the left side, there are navigation links: 'New Job', 'Manage Jenkins', 'People', and 'Build History'. Below these are two sections: 'Build Queue' showing 'No builds in the queue.' and 'Build Executor Status' with a table showing two executors in an 'Idle' state.

**Jenkins** search ?

Jenkins » [Install as Windows Service](#) [ENABLE AUTO REFRESH](#)

[New Job](#) [Manage Jenkins](#) [People](#) [Build History](#)

## Install as Windows Service

Installing Jenkins as a Windows service allows you to start Jenkins as soon as the machine starts, and regardless of who is interactively using Jenkins.

Installation Directory

**Build Queue**  
No builds in the queue.

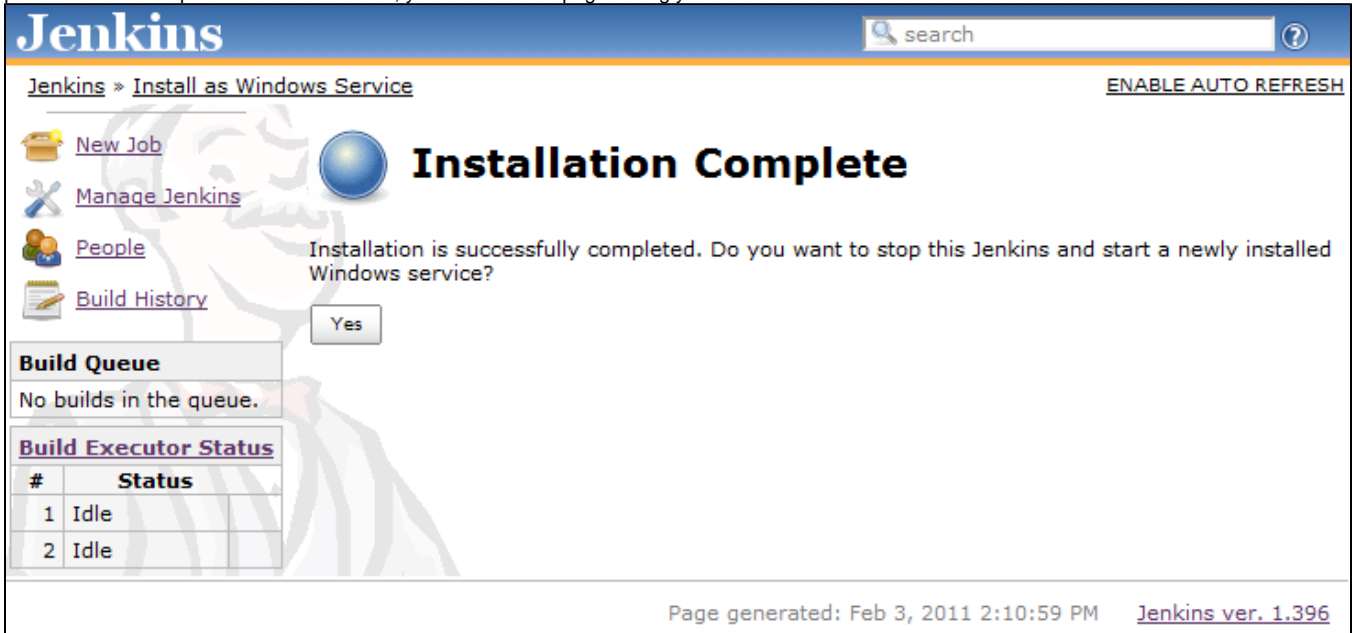
**Build Executor Status**

#	Status
1	Idle
2	Idle

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Choose the directory where Jenkins shall be installed (directory must already exist. If not create it before hand). This will become JENKINS\_HOME and used to store data files and programs alike.

Upon successful completion of the installation, you should see a page asking you to restart Jenkins.



The screenshot shows the Jenkins web interface for the 'Installation Complete' page. The page title is 'Jenkins' and the breadcrumb is 'Jenkins » Install as Windows Service'. There is a search bar and a link to 'ENABLE AUTO REFRESH'. The main heading is 'Installation Complete' with a blue sphere icon. Below the heading, there is a message: 'Installation is successfully completed. Do you want to stop this Jenkins and start a newly installed Windows service?' A 'Yes' button is visible. On the left side, there are navigation links: 'New Job', 'Manage Jenkins', 'People', and 'Build History'. Below these are two sections: 'Build Queue' showing 'No builds in the queue.' and 'Build Executor Status' with a table showing two executors in an 'Idle' state.

**Jenkins** search ?

Jenkins » [Install as Windows Service](#) [ENABLE AUTO REFRESH](#)

[New Job](#) [Manage Jenkins](#) [People](#) [Build History](#)

## Installation Complete

Installation is successfully completed. Do you want to stop this Jenkins and start a newly installed Windows service?

**Build Queue**  
No builds in the queue.

**Build Executor Status**

#	Status
1	Idle
2	Idle

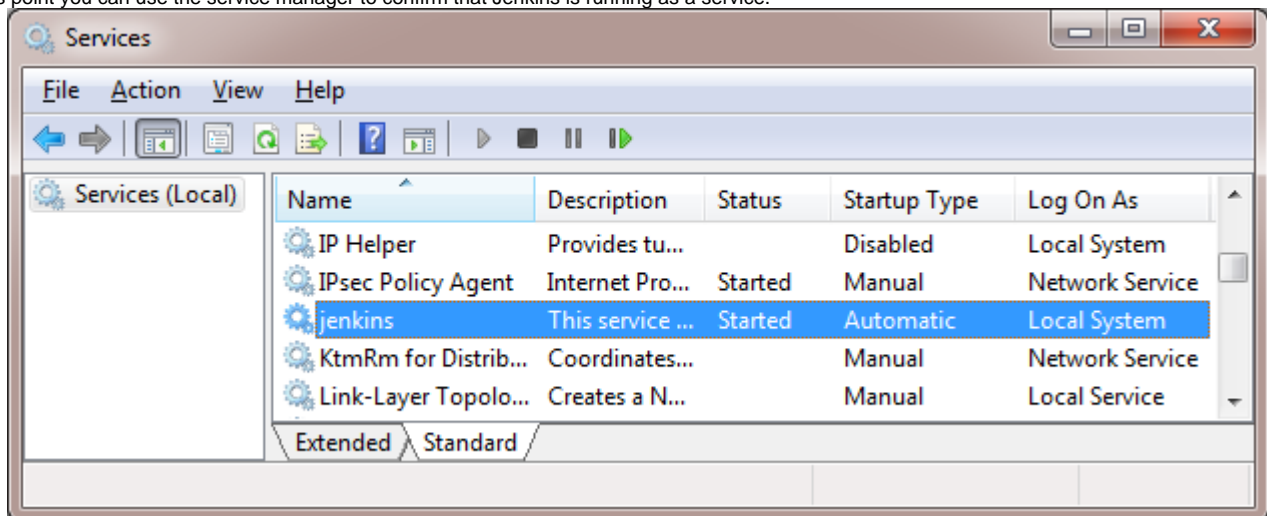
Page generated: Feb 3, 2011 2:10:59 PM [Jenkins ver. 1.396](#)

This is to re-launch Jenkins as a newly installed Windows service. When you click yes, you'll be asked to wait until the restart completes:



⚠ If a restart fails for some reason, check the output from Jenkins, which is stored in the installation directory that you specified.  
For W2K8 R2 users you may need to add `C:\Windows\SysWOW64` to the PATH env var.

At this point you can use the service manager to confirm that Jenkins is running as a service.



## Install Slave as a Windows service (require .NET 2.0 framework)

Jenkins also allows you to install a slave agent as a Windows service. (See [Distributed builds](#) for more about how to do distribute builds in general.)

First, you configure your slave to run as a JNLP slave agent. This should create a JNLP launch icon in the corresponding page, as shown below:



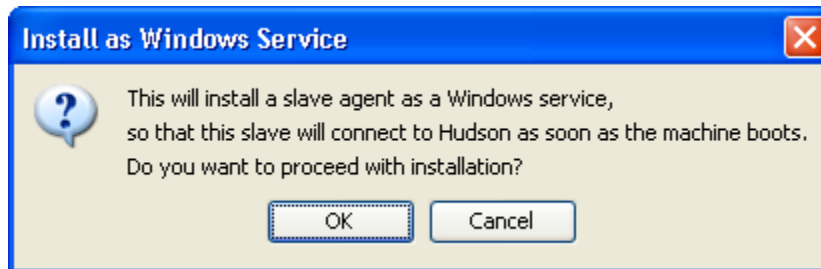
From the slave machine, launch a slave agent. You should see a window like this:



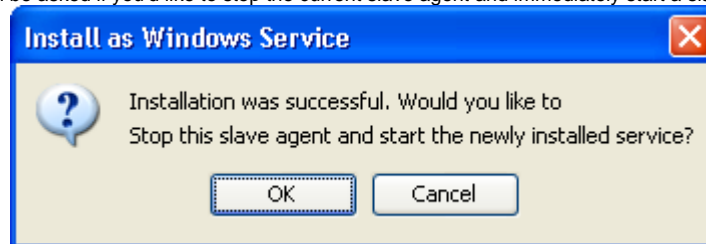
Choose "File" > "Install as Windows Service" from the menu:



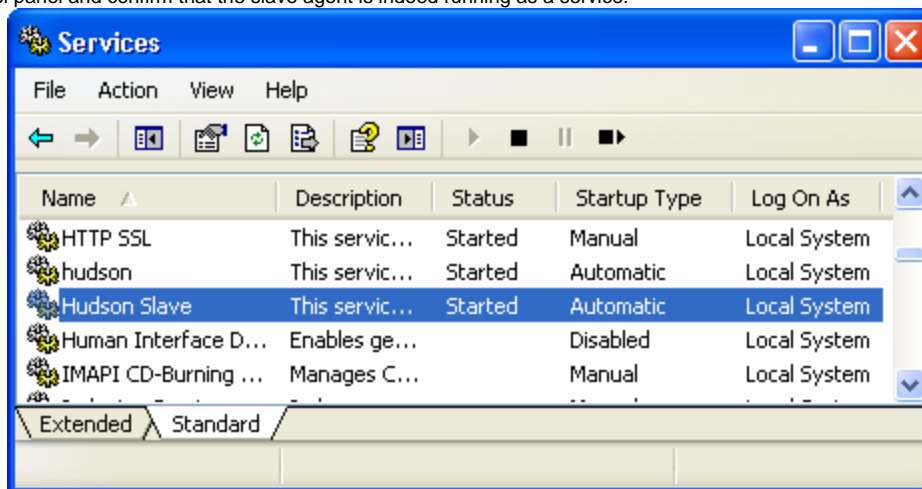
Confirm your intention to install as a service. The installation will place the program files to the directory designated as the slave root directory (from the "configure executors" screen.)




Once the installation succeeds, you'll be asked if you'd like to stop the current slave agent and immediately start a slave agent.



When you click "OK", the slave agent window will terminate. The new slave agent runs as a service without showing a window, so head over to the service manager from the control panel and confirm that the slave agent is indeed running as a service:



 If the slave is supposed to start desktop applications you have to allow the service to interact with the desktop (Action->Properties->Logon->Allow service to interact with desktop).

## Configure Slave Service to Run as Domain User (Windows Server 2008 R2 x64)

**Warning:** Hudson may reset this setting if it deploys a new Slave at any time.

On Windows Server 2008 R2 x64 to configure the service Jenkins to run as the desired domain user.

On the Jenkins install directory, grant All Privileges to the Jenkins domain user. You may have to delete all old LOG files, hudson-slave.err, hudson-slave.out, hudson-slave.wrapper and redirect for the service to start back up.

Grant read access to the Jenkins user on the following registry key:

```
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\SecurePipeServers\winreg
```

Start the service back up and you should be able to run jobs as the domain user.

## Install Slave as a Windows service (cmd version)

In a cmd execute the following command:

```
sc.exe create "<serviceKey>" start= auto binPath= "<path to jenkins-slave.exe>" DisplayName= "<service display name>"
```

<serviceKey> is the name of the registry key that will define the service (this will not be displayed)

<service display name> is the label that will identify the service in the service manager interface

Note that one space after the "=" for each option is *mandatory*.

Also note that this will not assign a description string to the service. This can be added by creating a new String value called `Description` in the registry, under

```
Computer\HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\services\<serviceKey>
```

See the [sc.exe reference](#) for information on `sc.exe`

See also [How To Create a User-Defined Service](#) if you want to manually customize your service attributes.

You can also use `instsrv` instead of `sc.exe`:

1. Run `path\to\instsrv "Jenkins Slave" path\to\svany.exe`
2. Run `regedit`
3. Create `HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Jenkins Slave\Parameters`
4. Add the following registry keys:
  - a. `HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Jenkins Slave\Description="Jenkins Continuous Integration Slave"`
  - b. `HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Jenkins Slave\Parameters\AppParameters="-jar path\to\slave.jar -jnlpUrl http://jenkins-master:8080/computer/jenkins-slave/slave-agent.jnlp"`
  - c. `HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Jenkins Slave\Parameters\Application="C:\WINDOWS\system32\java.exe"`

## Launch Java Web Start slave agent via Windows Scheduler

If you are having trouble getting the Java Web Start agent installed as a Windows service an alternative method of starting the service automatically when Windows starts is to use the [Windows Scheduler](#).

## Changing the configuration of services

The JVM launch parameters of these Windows services are controlled by an XML file `jenkins.xml` and `jenkins-slave.xml` respectively. These files can be found in `$JENKINS_HOME` and in the slave root directory respectively, after you've install them as Windows services.

The file format should be self-explanatory. Tweak the arguments for example to give JVM a bigger memory.

Stdout and stderr from the service processes go to log files in the same directory.

## Uninstallation

To uninstall the jenkins slave service, run `jenkins-slave.exe uninstall` from the command line.

To uninstall the jenkins service, run `jenkins.exe uninstall` from the command line.

# Troubleshooting

If the slave service doesn't start as intended, check the following locations for more information.

- Look at the Windows event viewer under the application section for the logging output from Jenkins. This captures the key Windows service events, such as startup and termination
- Look at the log files in the directory that `jenkins.exe` resides. They correspond to the standard output and the standard error from the slave process, and often Java stack traces are sent there.