

# VM options

Certain configuration of SmartGit has to be done by *VM options*, in files called `smartgit.vmoptions`. Usually you will want to specify VM options just for your account (current user):

- **Windows:** `%APPDATA%\syntevo\SmartGit\smartgit.vmoptions` (`%APPDATA%` is the path defined in the environment variable `APPDATA`)
- **Linux:** `~/smartgit/smartgit.vmoptions`
- **Mac:** `~/Library/Preferences/SmartGit/smartgit.vmoptions`

Alternatively (but **not recommended**), VM options can also be specified system-wide in following files:

- **Windows:** the global file is `bin\smartgit.vmoptions` in SmartGit's installation directory
- **Linux:** the global file is `bin/smartgit.vmoptions` in SmartGit's installation directory
- **Mac:** the global file is `Contents/MacOS/smartgit.vmoptions` in SmartGit's installation directory `SmartGit.app`

The `smartgit.vmoptions` file contains a list of additional VM options which should be passed to the Java VM. VM options are basically arguments to Java and every argument must be declared on a separate line.

Example
<pre>-Xmx2048M -Xms1024M</pre>

## Location of the Settings Directory

The *settings* contains SmartGit's settings. See [Installation and Files](#) for information about the default location and contents of the settings directory. On Windows and Linux, you can change its location by modifying the VM option `-Dsmartgit.settings`.

### Note

Changing the settings directory's location is *not* supported on Mac OS X.

Within the value of `smartgit.settings`, certain Java system properties are allowed, such as `user.home`. Another accepted value is the special `smartgit.installation` property, which refers to the SmartGit installation directory.

Example
<p>To tell SmartGit to store its settings in the subdirectory <code>.settings</code> of the SmartGit installation directory, add follow line to <code>smartgit.vmoptions</code>:</p> <pre>-Dsmartgit.settings=\${smartgit.installation}\.settings (Windows) -Dsmartgit.settings=\${smartgit.installation}/.settings (Linux)</pre>

## Location of the Updates Directory

The *Updates* directory contains downloaded program updates. See [Installation and Files](#) for information about the default location and contents of the *Updates* directory. On Windows and Linux, you can change its location by modifying the VM option `-Dsmartboot.sourceDirectory`.

Example
<p>To tell SmartGit to store its program updates in the subdirectory <code>.updates</code> of the SmartGit installation directory, add follow line to <code>smartgit.vmoptions</code>:</p> <pre>-Dsmartgit.settings=.updates</pre>

## Used Java Runtime Environment

You can check **Help|About**, page **Information** to see which **Java Version** SmartGit is using. Depending on the operating system, you can change the Java VM as follows:

## Windows

Use the Windows environment variable `SMARTGIT_JAVA_HOME` to tell SmartGit which JRE to use.

### Example

To tell SmartGit to use the Java 8 JRE located at in `C:\Program Files\Java\jre8`, set the environment variable `SMARTGIT_JAVA_HOME=C:\Program Files\Java\jre8`.

You have to specify a 64-Bit JRE (starting with SmartGit 18.1). When running `bin/smartgit32.exe`, you have to specify a 32-Bit JRE.

## Linux

On Linux, you can configure the JRE to be used by adding `jre=/path/to/jre` to `smartgit.vmoptions`.

### Example

To tell SmartGit to use the JRE located in `/opt/jre/jre32/jre1.7.0`, add following line to `smartgit.vmoptions`:

```
jre=/opt/jre/jre32/jre1.7.0
```

## Memory Limit

The memory limit (also known as maximum heap size) specifies how much RAM the SmartGit process is allowed to use. The memory limit can be configured by the VM option `-Xmx`.

### Example

To change the maximum memory limit to 1GB, add following line to `smartgit.vmoptions`:

```
-Xmx1024m
```

If the set value is too low, SmartGit may run out of memory during memory-intensive operations.

### Note

32-Bit Java VMs only allow to configure a maximum memory limit of roughly 1200M. For almost all setups and repository sizes, this should be sufficient. If you nevertheless need to configure a higher limit, you will have to use a 64-bit VM and on Windows invoke `smartgit64.exe`.

## Extended PATH

On Linux and Mac OS X, you can extend the PATH used by SmartGit (and all processes invoked by SmartGit, especially Git itself) by adding `path=/additional/path` to `smartgit.vmoptions`. This `path=` lines can be used multiple times and will be **appended** to the PATH in the order of occurrence.

### Example

To make the file `/usr/local/bin/git-lfs` accessible without full path specification, add following line to `smartgit.vmoptions`:

```
path=/usr/local/bin
```

Do not specify the file path, but its parent directory's path - as for all usual path modifications!