Win32 Platforms

mod_perl and related issues on Windows platforms

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- 1. Frequently asked questions for mod_perl on Win32
    This document discusses some questions that arise often with mod_perl on Win32.

1 Frequently asked questions for mod_perl on Win32

1.1 Description

This document discusses some questions that arise often with mod_perl on Win32.

1.2 Resolving Problems

If you don’t find a solution to your problem here, make sure to check the other troubleshooting documents according to the used mod_perl version as explained in the following sections.

1.2.1 Problems with mod_perl 1.0

If you have troubles with mod_perl 1.0, please refer to the following documents:

- Frequent mod_perl 1.0 problems
- General mod_perl 1.0 troubleshooting
- Debugging mod_perl 1.0

If the solution is still not found, see the guide to getting help with mod_perl 1.0.

1.2.2 Problems with mod_perl 2.0

- Win32 specific 2.0 problems
- General troubleshooting guide for mod_perl 2.0
- Debugging mod_perl 2.0 Perl code
- Debugging mod_perl 2.0 internals.

If the solution is still not found, see the guide to getting help with mod_perl 2.0.

1.3 Obtaining mod_perl

1.3.1 Do I need Perl to use mod_perl?

Yes, Perl is required. You can obtain a Win32 Perl binary from http://www.activestate.com/. See also the all-in-one binary packages for both mod_perl 1.0 and mod_perl 2.0 which include Perl, Apache, and mod_perl.

1.3.2 Are mod_perl ppm packages available?

PPM packages for both mod_perl 1.0, for ActivePerl 6xx builds, and mod_perl 2.0, for ActivePerl 8xx builds, are available.

1.3.3 Should I use mod_perl 1.0 or mod_perl 2.0?

mod_perl 1.0, for use with Apache 1.0, is stable and well tested, while mod_perl 2.0, for use with Apache 2.0, is in a development stage. Normally, therefore, one would recommend mod_perl 2.0 only in a testing and development environment. However, on Win32 mod_perl 1.0 is subject to some serious threading limitations which are overcome with mod_perl 2.0; this, coupled with the improved performance of Apache 2.0 on Win32, may make mod_perl 2.0 a better choice.

1.4 Installing mod_perl

1.4.1 I get an "unable to load mod_perl.so" error when starting Apache.

This can be due to a number of reasons.

- Verify that mod_perl.so was compiled against the same Perl and Apache versions that you are using. If you are using Apache/2.x, note that modules compiled under Apache/2.0 will not work under Apache/2.2, and vice-versa.
- Check that the directory containing `perl.exe` is in your *PATH* environment variable.
- Try inserting a directive

  ```
  LoadFile "C:/Path/to/your/Perl/bin/perlxx.dll"
  ```

  before the

  ```
  LoadModule perl_module modules/mod_perl.so
  ```

  directive, where *perlxx.dll* is the Perl dll in your Perl *bin* directory.
- Try a reboot.

1.4.2 How do I set the PATH environment variable?

This differs according to the flavour of Win32 you are using. Search for *set PATH environment* within the Windows Help utility under the Start menu for instructions.

1.5 Configuring mod_perl

1.5.1 How do I know scripts are running under mod_perl?

You can test this by using a script which prints out the environment variables; note that for mod_perl 2.0 a slightly different configuration is required.

1.5.2 I get an error about not being able to spawn a process for my CGI script.

This means that the first line of your script (the *shebang* line),

```
#!/Path/to/Your/Perl/bin/Perl.exe
```

is not pointing to the location of your Perl binary. Shebang lines are common in a Unix environment, where they are used to indicate with which program a script is to be run by, but are not normally used as such on Win32, except in this context within Apache.

1.5.3 My script gets returned as plain text.

See the discussion of configuring Apache::Registry; for mod_perl 2.0, a different configuration is required.

1.5.4 I get a "Save-As" dialogue box when calling a script.

If the extension of the file being called is `pl`, or some other common extension, and if the problem happens with a browser on Windows, it may be that there is a file association set up within Windows for that extension. Try changing the extension of the file to something for which a file association is normally not present, such as `cgi`.

If this doesn't help, see the discussion about PerlSendHeader; note that for mod_perl 2.0, there is a different syntax.

1.5.5 My script displays a "Content-type" header in the browser.

Check the setting of PerlSendHeader; note that for mod_perl 2.0, there is a different syntax.

1.6 Using mod_perl

1.6.1 One request must finish before another is processed.

You are probably running into multithreading limitations of mod_perl 1.0; if this is a major problem, you should consider using mod_perl 2.0.

1.6.2 My script just hangs.

You should check the setting of PerlSendHeader; for mod_perl 2.0, there is a different syntax. If this setting is correct, and this occurs under mod_perl 2.0 and Perl-5.6.1, try upgrading to Perl-5.8.0.

1.6.3 I get a "Can’t find "Some::Module" in @INC ..." error

If this is a custom module installed outside of the system Perl @INC directories, see *perldoc lib*. If this is a mod_perl module, and you are using mod_perl 2, try using the *Apache2* module, as described in accessing mod_perl 2 modules.

1.6.4 When starting Apache, an error concerning a missing entry point in mod_perl.so appears.

This might be due to an incompatibility between the installed mod_perl files in the Perl tree and the mod_perl.so library within the Apache (or Apache2) modules directory. If you’re installing mod_perl via ppm, first try removing mod_perl (or mod_perl-dev, if you’re using the development version):

```
ppm> remove mod_perl
```

Next, remove (or move to another location) the mod_perl.so library under the Apache (or Apache2) modules directory:

```
C:\> del Apache2\modules\mod_perl.so
```

(assuming *C:\Apache2* is your top-level Apache2 directory). You may have to stop Apache to be able to do this. Then install mod_perl via ppm:

```
ppm> install mod_perl
```

and ensure that the post-install script successfully fetches and installs *mod_perl.so*.

1.6.5 I get a "Can’t locate object method ..." error.

First off, if this is due to running some script from the command line, this might be normal behaviour, as many Apache modules require one to be in the Apache environment to work. If this does occur from within Apache, and is a problem with mod_perl 2.0, it may be that the right module hasn’t been loaded - see the discussion of Command Line Lookups for a method to discover which module is needed.

1.6.6 How do I run ASP scripts?

For a mod_perl solution, check http://www.apache-asp.org/ for a discussion of the Apache::ASP module.

1.6.7 How do I install additional Apache modules?

If these aren't available via ppm from the repositories for mod_perl 1.0 or mod_perl 2.0, you can build them using the CPAN.pm module.

1.6.8 Why can't my scripts execute external programs with GUI frontends from within Apache/mod_perl?

The issue is not an Apache/mod_perl issue per se. Any service that allows execution of external binaries that try to initialize and display GUI components will have problems under OSs like Windows 2K+, Unix, Linux and MacOS X. This would have worked in Win 98 because apps all run in the same user space (under the same user ID). Those resources happened to be, for the most part, linked to almost everything else running on the system. Hence when you ran a gui app from within Apache the system would display the gui part of it on the screen. The OS saw no difference between the web server running in the background and the user's desktop. The best way to deal with this is to see if the application you are trying to run has a /quiet switch or something that will keep it from trying to draw any GUI components/dialog boxes to the screen. If you wrote the application you are trying to execute then you should put a hook into it that will allow that option (obviously adding the code to bypass the gui code) and then execute it with the new option. The best way to execute programs under Perl's system call is to write a console application. If you would like to take output from that application then you should write to STDOUT all text you want the perl application to see as a return value from your `qx` or ‘‘ (backticks) call.

1.6.9 An error about being unable to load a file results when using a DBD database driver.

Try putting the path to your database DLLs in your *PATH* environment variable. Also, make sure you are using the latest versions of *DBI* and your *DBD::** driver.

1.6.10 I get an error about being unable to load Apache::Request.

For mod_perl 1.0, make sure you have installed the *libapreq* ppm package described for mod_perl 1.0 ppm packages; the *libapreq* package available in the ActiveState repository will not work under mod_perl. A *libapreq2* package, suitable for use with mod_perl 2.0 / Apache 2.x, is available on http://www.cpan.org/, with Win32 ppm packages: *libapreq2*, for Apache/2.0, and *libapreq2-2.2*, for Apache/2.2, available as described for mod_perl 2.0 ppm packages.

1.6.11 My Apache2 installation did not come with the `apxs` utility.

The utilities `apxs`, `apr-config`, and `apu-config` have not been fully ported yet to Win32 for Apache2. A development port is available in the *apxs_win32.tar.gz* archive found under http://apache.org/dist/perl/win32-bin/; installation instructions are found in the accompanying *README* file. One can also install these utilties by running the *install_apxs* script under http://apache.org/dist/perl/win32-bin/. Note that this port does not offer yet the full functionality of the unix version - in particular, features enabling the utilities to be used within the Apache2 sources are missing. Nevertheless, they may be useful for building and installing 3rd-party C modules.

1.6.12 Why is use of `Apache::Log` on Win32 so slow?

On Win32 Apache attempts to lock all writes to a file whenever it's opened for append (which is the case with logging functions), as Unix has this behavior built-in, while Win32 does not. Therefore `Apache::Log` functions could be slower than Perl's print()/warn().

1.7 Maintainers

Maintainer is the person(s) you should contact with updates, corrections and patches.

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