

# cm3CommandShell.CMD Documentation

(last updated 10/29/2009 by RCC)

## Purpose:

Open a new Windows Command Shell (**cmd.exe**) and prepare its environment for use with Critical Mass Modula-3 (CM3). Preparing the environment consists of augmenting the **PATH** to find both the Microsoft Visual C/C++ binaries and the cm3 public repository for binaries, and setting several other environment variables useful for related command files, such as **cm3Proj.CMD** and **cm3StartIDE.CMD**.

This script also can be used to display or modify the CM3 environment settings when invoked from an extant CM3 command shell window. In addition, this script can start the Integrated Development Environment (IDE).

## Author / Distribution Rights:

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Author grants **free** use/modification/distribution of this batch/command file to anyone.

**Author does not warrant this batch/command file. Use at your own risk.**

I can't promise to maintain this software, but if you have a problem or suggestion, you are welcome to send me an email at [rcoleburn@mindspring.com](mailto:rcoleburn@mindspring.com)

I will try to respond in a timely manner.

## Caveats:

You must be running Windows 2000, Windows XP, or Windows Vista with command extensions enabled; otherwise, this command file will fail.

## Installation / Setup:

Store this command file in the **bin** directory of your cm3 installation. Place a shortcut to this command file on your desktop. Now, when you invoke this shortcut, you will get a windows command prompt window whose environment is set up for using **cm3**. You can also call this command file from a command prompt window at any time to set up the environment.

Another use is to integrate this command file into the Windows Explorer context menu using a menu title such as "**Open cm3 Command Shell here**" so that a cm3 command shell can be opened in any folder.

## Dependencies:

The **cm3CommandShell.CMD** file and **cm3.exe** must be in the **bin** directory of your cm3 installation. They are used by this command file.

## Environment Variable Usage:

The following environment variables are setup automatically by the **cm3CommandShell.CMD** file:

**CM3\_ROOT** is the root of the CM3 installation, typically "C:\cm3"  
**CM3\_BIN** is where the CM3 binaries are kept, typically "C:\cm3\bin"  
**CM3\_PKG** is the location of the public package repository, typically "C:\cm3\pkg"  
**CM3\_IDE** is name of the IDE executable, e.g., **cm3IDE**, or **Reactor**.  
**CM3\_IDE\_EXE** is path of the IDE executable file.  
**CM3\_IDE\_HOME** is where cm3IDE looks for the user's home folder  
**REACTOR\_HOME** is where Reactor looks for the user's home folder.  
**\_cm3\_CommandReady** indicates if this command file completed successfully (**TRUE**, **FALSE**).

Unless overridden by command line options, the defaults are:

**CM3\_ROOT** = %CM3\_ROOT%, if defined; otherwise, %SystemDrive%\cm3  
**CM3\_BIN** = %CM3\_ROOT%\bin  
**CM3\_PKG** = %CM3\_ROOT%\pkg  
**CM3\_IDE** = cm3IDE  
**CM3\_IDE\_EXE** = %CM3\_ROOT%\bin\cm3ide.exe  
**CM3\_IDE\_HOME** = %UserProfile%\My Documents\CM3\_IDE\_HOME

Microsoft Visual C Setup="C:\Program Files\Microsoft Visual Studio 9.0\VC\vcvarsall.bat" x86

A number of environment variables are used internally and are considered temporary. The names of all such variables are prefixed by “\_cm3\_”.

The following environment variables define the default locations. You can edit these in the section of the command file labeled "DEFAULTS" to change the defaults.

**\_cm3\_VCSetup** : Set to absolute path of BAT/CMD that sets up Microsoft Visual Studio/C/C++. Set to empty to disable calling this auto setup routine. (Example: set \_cm3\_VCSetup="C:\Program Files\Microsoft Visual Studio 9.0\VC\vcvarsall.bat" x86)

**\_cm3\_SDKSetup** : Set to absolute command line for establishing the Microsoft Platform SDK environment settings. Set it to empty to disable calling this routine. (Example: set \_cm3\_SDKSetup="C:\Program Files\Microsoft Platform SDK for Windows Server 2003 R2\SetEnv.CMD" /XP32 /RETAIL)

## User Help:

### Basic Usage:

cm3CommandShell.CMD [Help | ? | Show | Reset]

cm3CommandShell.CMD [Root path] [Home path] [IDE cm3IDE | Reactor]  
[StartIDE] [SameWindow | NewWindow]

### Optional Command Line Arguments:

Help ?	Display a summary of helpful information. <b>Help</b> cannot be combined with other arguments.
	Display current system and CM3 environment settings, if any. <b>Show</b> cannot be

<b>Show</b>	combined with other arguments.
<b>Reset</b>	Remove <b>%CM3_BIN%</b> from path, then cause environent variables <b>CM3_ROOT</b> , <b>CM3_BIN</b> , <b>CM3_PKG</b> , <b>CM3_IDE_EXE</b> , <b>CM3_IDE_HOME</b> , and <b>REACTOR_HOME</b> to become undefined, i.e., remove these environment settings. <b>Reset</b> cannot be combined with other arguments.
<b>Root path</b>	Define the CM3 installation to be rooted at path.
<b>Home path</b>	Define the path to the IDE's private repository.
<b>IDE cm3IDE</b>	Use cm3IDE.EXE as the IDE.
<b>IDE Reactor</b>	Use Reactor.EXE as the IDE.
<b>StartIDE</b>	Also start up the Integrated Development Environment (IDE).
<b>SameWindow</b>	Don't open a new window; just use the current one.
<b>NewWindow</b>	Force a new window to be opened and used.

All keyword arguments are case-insensitive.

Notes:

When completed successfully, the variable **\_cm3\_CommandReady=TRUE** is set. You can check this variable in other batch/command files to avoid calling **cm3CommandShell.CMD** again unnecessarily.

Also, the **ERRORLEVEL** is set to 0 for successful, or **>=1** if unsuccessful, as shown below:

<b>0</b>	Successful. No errors.
<b>1</b>	Unsupported operating system.
<b>2</b>	Usage error, e.g., Invalid command line options.
<b>3</b>	Invalid system environment settings.
<b>4</b>	Invalid cm3 environment settings.
<b>5</b>	Fatal error, e.g., Unable to create file/folder.

The Critical Mass v4.1 commercial release was known as “Reactor”, owing to its flagship Integrated Development Environment (IDE), “Reactor.EXE”. The IDE for the open source Critical Mass Modula-3 release is “cm3IDE.EXE”.