

# PCMARK<sup>®</sup>10

## Command Line Guide

Updated April 23, 2018 for use with  
PCMark 10 Professional Edition v1.0.1493



## Installation

When installing the application using a command line the following options are available.

```
pcmark10-setup.exe [options]
```

Command	Description
<code>/installpath=&lt;install path&gt;</code>	Defines the install path, default is C:\Program Files\Futuremark\PCMark 10
<code>/quiet /silent</code>	Silent install, displays no user interface
<code>/force</code>	Force install
<code>/install</code>	Installs the product (Default)
<code>/uninstall</code>	Uninstalls the product



Running the installer while using elevated permissions can cause the application to not function correctly. Please avoid running the installer with elevated permissions until prompted.

## Usage

Run the program from a command line that was started as an administrator, (right-click on the *cmd* shortcut, and select *Run as Administrator*).

PCMark10Cmd.exe [options]



[PCMark Professional Edition](#) license required for command line use.

## Options

⚠ Square brackets, [ ], means an optional parameter where the default value will be used if no parameter is given.

⚠ When *on/off* is omitted with an option, *on* is assumed.

The parameters to an option can be given either with a space in between (**--in myresult.pcmark10-result**), or with an equal sign (**--in=myresult.pcmark10-result**).

Command	Description
<b>-h, --help</b>	Prints the available command line options.
<b>--register &lt;product key&gt;</b>	Register PCMark 10 with the given key.
<b>--unregister</b>	Unregister PCMark 10.
<b>-d &lt;benchmark.xml&gt;, --definition &lt;benchmark.xml&gt;</b>	Specifies the benchmark definition XML file that defines the tests and settings to be used. See description below on benchmark definition files.
<b>--loop [&lt;count&gt;]</b>	Set the number of times to loop benchmark. The default is 1. Use 0 for infinite loop stress test, where the benchmark will not end until aborted.
<b>--in &lt;file.pcmark10-result&gt;</b>	Load the given result file. To be used in conjunction with --online to submit the result online, or with --export-xml or --export-pdf to export the result file.
<b>--out &lt;file.pcmark10-result&gt;</b>	Save the benchmark results to the given result file.
<b>--result-name &lt;name&gt;</b>	Sets the string value "Name" in the result file.

<b>--result-description</b> <b>&lt;description&gt;</b>	Sets the string value "Description" in the result file.
<b>--export-xml</b> <b>&lt;file.xml&gt;</b>	Export the benchmark results to the given XML file.
<b>--export.pdf</b> <b>&lt;file.pdf&gt;</b>	Export the benchmark results to the given PDF file.
<b>--systeminfo</b> <b>[on off]</b>	Collect SystemInfo. Default value: off.
<b>--systeminfomonitor</b> <b>[on off]</b>	Enable SystemInfo Monitoring. Default value: off.
<b>--online</b> <b>[on off]</b>	Send the benchmark result to Futuremark Online Default value: off.
<b>--log</b> <b>&lt;log-file&gt;</b>	Save benchmark progress log to <b>&lt;log-file&gt;</b> . Logging does not affect scores.  If this option is not used, the last 1000 lines of logging are saved to the default location: C:\Users\*username*\Documents\PC Mark 10\Log\PCMark10.log
<b>--debug-log</b>	Enable per workload debug logging. Log files for each workload run are saved to: C:\Users\*username*\Documents\PC Mark10\Log
<b>--trace</b>	Verbose logging
<b>--list-opengl-devices</b>	Lists available OpenGL devices
<b>--video-conferencing-opengl-device</b> <b>&lt;device index&gt;</b>	Specify the OpenGL devices to use for the Video Conferencing test. The device indexes can be listed with the command <b>--list-opengl-devices</b> .
<b>--photo-editing-opengl-device</b> <b>&lt;device index&gt;</b>	Specify the OpenGL devices to use for the Photo Editing test. The device indexes can be listed with the command <b>--list-opengl-devices</b> .

<b>--spreadsheets-opengl-device</b> <b>&lt;device index&gt;</b>	Specify the OpenCL devices to use for the Spreadsheets test. The device indexes can be listed with the command --list-opengl-devices.
<b>--video-editing-opengl-device</b> <b>&lt;device index&gt;</b>	Specify the OpenCL devices to use for the Video Editing test. The device indexes can be listed with the command --list-opengl-devices.
<b>--gpuCount &lt;integer&gt;</b>	Specify how many GPUs are used. The default value is the GPU count given by SystemInfo, with the fallback value being 1 if SystemInfo isn't run or fails.
<b>--recovery</b>	Recover a result after a crash, saved to My documents PCMark 10 folder unless --out is defined
<b>--clean-temporary-files</b>	Cleans temporary files left by previous runs.

## Examples

These examples assume that there is a custom settings file `mybenchmark.pcmdef` in the folder `c:\PCMark10Results`, and that the user has write permissions to the same directory.

### Run the PCMark 10 benchmark

Run the PCMark 10 benchmark and save the result to a given file.

```
PCMark10Cmd.exe --definition=pcm10_benchmark.pcmdef  
--out=C:\PCMark10Results\myresults.pcmark10-result
```

### Run the PCMark 10 Express benchmark

Run the PCMark 10 benchmark and save the result to a given file.

```
PCMark10Cmd.exe --definition=pcm10_express.pcmdef  
--out=C:\PCMark10Results\myresults.pcmark10-result
```

### Run the PCMark 10 Extended benchmark

Run the PCMark 10 benchmark and save the result to a given file.

```
PCMark10Cmd.exe --definition=pcm10_extended.pcmdef  
--out=C:\PCMark10Results\myresults.pcmark10-result
```

### Loop three times

Run the benchmark with a customized "mybenchmark.pcmdef" settings file, looping it three times, and saving the results to `myresults.pcmark10-result`. There will be three numbered result files, one per run.

```
PCMark10Cmd.exe --definition=C:\PCMark10Results\mybenchmark.pcmdef  
--loop=3 --out=C:\PCMark10Results\myresults.pcmark10-result
```

### Load a result file and export it as a PDF file

With a customized "mybenchmark.pcmdef" settings, saving results to `myresults.pcmark10-result` (there will be three numbered result files, one per run)

```
PCMark10Cmd.exe --in=C:\PCMark10Results\myresults.pcmark10-result  
--export-pdf C:\PCMark10Results\myresults.pdf
```

## Recover a result

After a crash or a battery run draining the battery, use --recovery to recover the benchmark result and save the result.

```
PCMark10Cmd.exe --recovery  
--out="C:\PCMark10Results\recoveredResult\myresult.pcmark10-result"
```

## Set the OpenCL device to use

To set the OpenCL device to use, first list the available OpenCL devices.

```
PCMark10Cmd.exe --list-opencl-devices
```

Set the desired OpenCL device for each test that uses OpenCL with the index listed by the above command, and run the PCMark 10 benchmark.

```
PCMark10Cmd.exe --video-conferencing-opencl-device=1  
--photo-editing-opencl-device=1 --spreadsheets-opencl-device=1  
--video-editing-opencl-device=1 --definition=pcm10_benchmark.pcmdef  
--out=C:\PCMark10Results\myresults.pcmark10-result
```



## Definition XML files

PCMark 10 comes with definition files that enable you to set up and run a benchmark with standard or custom settings. By default, these definitions can be found in:

C:\Program Files\Futuremark\PCMark 10\  
(Modify the directory to x86 instead of x64 if running 32 bit OS.)

pcm10_benchmark.pcmdef	Run default PCMark 10 benchmark tests
pcm10_express.pcmdef	Run default PCMark 10 Express tests
pcm10_extended.pcmdef	Run default PCMark 10 Extended tests
pcm10_benchmark_custom.pcmdef	Run custom PCMark 10 benchmark tests
pcm10_express_custom.pcmdef	Run custom PCMark 10 Express tests
pcm10_extended_custom.pcmdef	Run custom PCMark 10 Extended tests

Using the default definition files are the same as running a test from the GUI.

Custom definition files mirror the options available on the Custom tab of the GUI. Copy the appropriate custom definition file and edit it to match your desired settings. Note that custom runs only produce sub-scores, never an overall score.

# Examples

## pcm10\_express.pcmdef

```
<?xml version="1.0" encoding="utf-8"?>
<benchmark>
  <test_info>
    <benchmark_tests>
      <benchmark_test name="Pcm10ExpressBenchmarkDefault"
test_run_type="EXPLICIT" version="1.0"/>
    </benchmark_tests>
  </test_info>
  <application_info>
    <selected_workloads>
      <selected_workload
name="Pcm10VideoConferencingDefault"/>
      <selected_workload name="Pcm10WebBrowsingDefault"/>
      <selected_workload name="Pcm10AppStartUpDefault"/>
      <selected_workload name="Pcm10WritingDefault"/>
      <selected_workload name="Pcm10SpreadsheetDefault"/>
    </selected_workloads>
  </application_info>
</benchmark>
```

If all you want is to specify which tests to run (for example, to skip a certain test), just make a copy of the appropriate definition file and edit the list of tests.

## pcm10\_express\_custom.pcmdef

```
<?xml version="1.0" encoding="utf-8"?>
<benchmark>
  <test_info>
    <benchmark_tests>
      <benchmark_test name="Pcm10ExpressBenchmarkCustom"
test_run_type="EXPLICIT" version="1.0"/>
    </benchmark_tests>
  </test_info>
```

```

<application_info>
  <selected_workloads>
    <selected_workload
name="Pcm10VideoConferencingCustom"/>
    <selected_workload name="Pcm10WebBrowsingCustom"/>
    <selected_workload name="Pcm10AppStartUpCustom"/>
    <selected_workload name="Pcm10WritingCustom"/>
    <selected_workload name="Pcm10SpreadsheetCustom"/>
  </selected_workloads>
</application_info>
<settings>
  <setting>
    <name>wait_between_workloads</name>
    <value>15</value>
  </setting>
  <setting>
    <name>use_video_acceleration</name>
    <value>1</value>
  </setting>
  <setting>
    <name>use_opencl</name>
    <value>1</value>
  </setting>
  <setting>
    <name>tempdir</name>
    <value>"C:\TEMP\MY_TEMP"</value>
  </setting>
  <!-- OpenCL device values are indices of the devices and
are specific to a given computer.
      You can find allowed values by running the command
line application with the option list-opencl-devices -->
  <!--
  <setting>
    <name>spreadsheet_opencl_device</name>
    <value>0</value>
  </setting>
  <setting>
    <name>opencv_opencl_device</name>
    <value>0</value>
  </setting>
-->

```

```
</settings>  
</benchmark>
```

Custom definition files contain settings with the default values used in the test.

## Definition file settings


The table below lists all settings used in the definition files.

wait_between_workloads	The time to wait between each workload run.
use_video_acceleration	1 - enable the use of hardware acceleration in video processing 0 - disable the use of hardware acceleration in video processing
use_opengl	1 - use OpenGL 0 - disable OpenGL
opencv_opengl_device	The index of the OpenGL device to use in the Video Conferencing
photo_opengl_device	The index of the OpenGL device to use in the Photo Editing test
spreadsheet_opengl_device	The index of the OpenGL device to use in the Spreadsheets test
video_opengl_device	The index of the OpenGL device to use in the Video Editing test
tempdir	Sets the directory where the temporary workload data will be stored.
use_opengl	Debug setting for Spreadsheets and Writing. 1 - use OpenGL 0 - disable OpenGL Default value: 1 - use OpenGL
use_chromium_sandbox	Debug setting for Application Startup and Web Browsing. 1 - use sandbox 0 - disable sanbobox Default value: 0 - disable sanbobox

## Selecting an OpenCL device

To get the index of the OpenCL device to use with the OpenCL settings, list the available OpenCL devices by running the following command line:

```
PCMark10Cmd.exe --list-opengl-devices
```

 The indexes are computer system specific, so the definition file can only be used on that specific system if an OpenCL device has been specified.

Here is an example of a custom run of the Spreadsheets test using the OpenCL device with the index of one.

```
<?xml version="1.0" encoding="utf-8"?>
<benchmark>
  <test_info>
    <benchmark_tests>
      <benchmark_test name="Pcm10ExpressBenchmarkCustom"
test_run_type="EXPLICIT" version="1.0"/>
    </benchmark_tests>
  </test_info>
  <application_info>
    <selected_workloads>
      <selected_workload name="Pcm10SpreadsheetCustom"/>
    </selected_workloads>
  </application_info>
  <settings>
    <setting>
      <name>spreadsheet_opengl_device</name>
      <value>1</value>
    </setting>
  </settings>
</benchmark>
```

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