



COLARDYN IT GCV

HWBOT Query API

Prepared for: 3rd party benchmark application writers

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Table of Contents

Introduction	2
Objective	2
Solution	2
Example	2
Submissions	4
Parameters	4
General	4
Hardware	6
Response	11
Ranking	14
Parameters	14
Response	14
Members	16
Parameters	16
Response	17
Benchmarks	18
Parameters	18
Response	19
Competitions	20
Parameters	20
Response	21



Introduction

Objective

We've introduced a Query API for HWBOT to make it easier to integrate HWBOT results and data in applications or on 3rd party websites. Access to the Query API is open to everyone and is free to use, but be advised that if your API requests put significant load on our server, we might throttle or deny access completely. If you have any further questions about usage terms, please contact us at info@hwbot.org.

Solution

The query API consists of several different APIs, each with a different purpose. The table below clarifies each API. API requests can be made with regular **HTTP GET or POST requests**, with different GET parameters / POST data. The response format can be **XML or JSON**, depending on the request header.

url	description
/api/submissions	Used to search for submissions, similar to the existing search submissions page on HWBOT. The response contains extensive information for each submission.
/api/ranking	Returns the top ranking submissions for a given benchmark or competition.
/api/members	Similar to the existing search members page on HWBOT. Response contains basic user information and user rank and awards statistics.
/api/benchmarks	Useful to get an overview of the different benchmarks supported by HWBOT.
/api/competitions	Can be used to search for competitions and challenges, present or past.

Example

In the following sections, each API is explained in depth, but here are some examples to give an idea.

```
# find out the applicationId of SuperPI
curl "http://hwbot.org/api/benchmarks?name=superpi"
# the applicationId is 3, now search for the fastest superpi result
curl "http://hwbot.org/api/submissions?applicationId=3&limit=1"
# returns all members from Belgium, ordered by rank. The result is returned as JSON
curl -i -H "Accept: application/json" "http://hwbot.org/api/members?countryCode=BE&orderBy=rank"
```



With our API, it's very easy to integrate a ranking of your benchmark on your own website using JQuery. This simple example will show the top 10 results of SuperPi 1M. Read on to find out more on how to use each API.

```
<script>
$.getJSON("http://hwbot.org/api/ranking?application=superpi_-_1m&limit=10&jsoncallback=?",
function(data) {
    $("#ranking").append("<ul>");
    $.each(data.results, function(rank, entry){
        $("#ranking").append("<li>" + (rank+1) + ". " + entry.score
            + " <a href='" + entry.url + "'>" + entry.user.name + "</a> "
            + entry.description + "</li>");
    });
    $("#ranking").append("</ul>");
});
</script>
```



Submissions

Parameters

The API to search for submissions uses the same parameters that can be used like the existing search submissions form (<http://hwbot.org/search/submissions>). This means that all the form options can be used for the API, plus some extras. Note that parameters are case sensitive! The parameter values however, are not.

General

parameter	description
ids	comma-seperated list of submission IDs. A submission ID is the first number in a submission url, for example: http://hwbot.org/submission/2276478_andreyang_3dmark2001_se_geforce_gtx_580_164589_marks ID is 2276478. Alternatively, submissions IDs are included in API responses.
application	submissions made for benchmark with specified name. Spaces should be replaced with underscore '_'. The name has to be the same as it appears in URLs. Example SuperPi 1M: http://hwbot.org/benchmark/superpi_-_1m/ , the name is superpi_-_1m .
applicationId	submissions made for benchmark with specified ID. ApplicationId can be retrieved by querying /api/benchmarks.
user	submissions mqde by user with specified name. Again, the safe name is required, as it appears in URLs (see application parameter description). In addition to whitespace replacement, following transformations are required: replace ' ' with 'i', '@' with 'a' and '-' with '_'. Example: k ngp n (http://hwbot.org/user/kingpin) becomes kingpin.
userId	submissions made by user with specified ID. UserId can be retrieved by querying /api/members.
team	submissions made for team with specified name. Again, the safe name is required, as it appears in URLs (see user parameter description). The same transformations as with the user parameter are required.
teamId	submissions made for team with specified ID. TeamId is included in api responses for /api/submissions and /api/members.
contestId	submissions made for a competition with specified ID. ContestId can be retrieved from /api/competitions.
stageId	submissions made for a competition stage with specified ID. StageId can be retrieved from /api/competitions.



parameter	description
league	submissions made by somebody in the specified league. Possible values: 'enthusiast', 'oc' and 'pro_oc'.
countryCode	submissions made by somebody from the specified country. CountryCode should be the ISO standard code.
regionCode	submissions made by somebody from the specified region. For possible values, check the /search/submissions page.
dateBefore	submissions made before the specified date. Format is YYYY/MM/DD, for example: 2012/12/21
dateAfter	submissions made after the specified date.
limit	maximum number of submissions returned. Default is 20, max is 100.
offset	used to enumerate through submissions. For example if there are 1000+ results, you can set offset to 1000 to start at result 1000.
always200OK	Boolean, possible values 'true' or 'false'. If your request generated an error, the HTTP status of the response (which contains an error message) will be 400. If you do not want this, set always200OK to true.
jsoncallback	provide a JSON callback function.

The following parameters all have an extra parameter, **Operator**. Possible values are 'more_or_equal', 'less_or_equal', 'equal'. For example, if you want the top 10 submissions, set globalRank to 10 and globalRankOperator to less_or_equal.

parameter	description
score	submissions with a lower or higher score than the specified score.
globalRank	submissions with a lower or higher global rank than the specified rank.
hardwareRank	submissions with a lower or higher hardware rank than the specified rank.
glPoints	submissions that received more or less global points than the specified number.
hwPoints	submissions that received more or less hardware points than the specified number.
compPoints	submissions that received more or less competition points than the specified number.
globalTeamPowerPoints	submissions that received more or less GTP points than the specified number.
hardwareTeamPowerPoints	submissions that received more or less HTP points than the specified number.
totalPoints	submissions that received more or less total points than the specified number.



parameter	description
reported	Boolean, possible values 'true' or 'false'. Use this to search for reported submissions.
imageAttached	Boolean, possible values 'true' or 'false'. Use this to only get submissions that have images attached.
videoAttached	Boolean, possible values 'true' or 'false'. Use this to only get submissions that have a video attached. Note that the video url itself is not included in the API response.
bestHardware	Boolean, possible values 'true' or 'false'. Set to true to only return a user's best submissions.
orderBy	sort the results according to the specified value. Possible values are: 'score', 'user', 'rank', 'points'.

Hardware

The following parameters are for specifying hardware used for submissions. Most parameters have a name and an ID variant. It is recommended that you use the ID if you know it, as ID queries are less complex for our database and accurate. If you don't know, using the name is fine. Keep in mind that the name is always the safe name, as it appears in HWBOT URLs. Unfortunately there are no real conventions used, please check the appropriate parameter for more info. For example: http://hwbot.org/hardware/processor/core_i7_2600k/ , http://hwbot.org/hardware/motherboard/n68-s3_ucc/ , etc.

For each hardware component, cooling can be specified. These are the different types of cooling and their ID:

1	stock cooling	6	dry ice cooling
2	air cooling	7	single stage phase change cooling
3	water cooling	8	cascade phase change cooling
4	TEC / Peltier cooling	9	liquid nitrogen cooling
5	not used	10	liquid helium cooling



parameter	description
cpu	limit results to submissions with the specified CPU name, Whitespace and '-' in the name has to be replaced with underscore '_'. Remember that you can search the site if you're not sure about the name, the url is the correct name. For example: AMD FX-8150 (http://hwbot.org/hardware/processor/fx_8150/): fx_8150. In addition to this, the name can be just a keyword. This means that '8150' would also match to the AMD FX-8150. Word of warning, it could also match to other CPUs that have 8150 in their name!
cpuid	limit results to submissions with the specified CPU id. This ID can be retrieved from /api/submissions responses, as the CPU model ID.
cpuFamily	limit results to submissions with the specified CPU family name, again, replace whitespace with underscores. To get a list of the different families, check the items under architecture here: http://hwbot.org/hardware/processors . Examples: amd_k10, intel_pentium_3, intel_core. As with the cpu parameter, partial matching also works, e.g. k10, pentium_3, core.
cpuFamilyId	limit results to submissions with the specified CPU family id.
cpuSubFamily	limit results to submissions with the specified CPU subfamily name, again, replace whitespace with underscores. To get a list of the different subfamilies, check the items under a family, under architecture here: http://hwbot.org/hardware/processors . Examples: pentium_mmx, athlon_64, core_i5, core_i5_mobile. Again, partial matching works, e.g. mmx, 64, i5.
cpuSubFamilyId	limit results to submissions with the specified CPU subfamily id.
cpuFreq	limit results to submissions with a lower or higher clock than cpuFreq. Use cpuFreqOperator of the type Operator to indicate 'more_or_equal', 'less_or_equal' or 'equal'.
numberOfProcessors	limit results to submissions with exactly this number of processors.
cpuBatch	limit results to submissions with this exact batch string.
cpuSocket	limit results to submissions with the specified CPU socket. To get a list of CPU sockets, check the sockets list here: http://hwbot.org/hardware/processors/ . When clicking a socket, a key parameter is added to the URL. This is the socket safe name, use this for the API. Examples: s478, am3_plus, lga1156
cpuSocketId	limit results to submissions with the specified CPU socket id.
cpuCoolingId	limit results to submissions with the specified cooling type as CPU cooling. The different types of cooling and their ID were listed at the beginning of the hardware parameters.



parameter	description
gpu	limit results to submissions with the specified GPU name, exactly like the CPU parameter. Please see the cpu parameter for more information. Example: hd_7970, gma_hd_4000, geforce_gtx_470.
gpuld	limit results to submissions with the specified GPU id. This ID can be retrieved from /api/submissions responses, as the GPU model ID.
gpuFamily	limit results to submissions with the specified GPU family name, again, replace whitespace with underscores. To get a list of the different families, check the items under architecture here: http://hwbot.org/hardware/videocards/ . Partial matching also works. Examples: nvidia_geforce_600_series, radeon_hd_6000_series, gma, etc.
gpuFamilyId	limit results to submissions with the specified GPU family id.
gpuSocket	limit results to submissions with the specified GPU socket name. Possible values are: 'agp_1x', 'agp_2x', 'agp_4x', 'agp_8x', 'pci', 'pcie', 'pcie2.0', 'pci3.0', 'integrated' and 'hybrid'.
gpuSocketId	limit results to submissions with the specified GPU socket id.
gpuCoreFreq	limit results to submissions with a lower or higher core clock than gpuCoreFreq. Use gpuCoreFreqOperator of the type Operator to indicate 'more_or_equal', 'less_or_equal' or 'equal'.
gpuShaderFreq	usage exactly like gpuCoreFreq.
gpuMemFreq	usage exactly like gpuCoreFreq.
numberOfVideocards	limit results to submissions with the exact specified amount of videocards.
gpuBatch	limit results to submissions with this exact gpu batch string.
gpuCoolingId	limit results to submissions with the specified cooling type as GPU cooling. The different types of cooling and their ID were listed at the beginning of the hardware parameters.



parameter	description
mbModel	limit results to submissions with the specified motherboard name, exactly like the CPU parameter. Please see the cpu parameter for more information. Example: ga_h55m_ud2h, p55_extreme, trinity.
mbModelId	limit results to submissions with the specified motherboard model id. This ID can be retrieved from /api/submissions responses, as the MB model ID.
mbManufacturer	limit results to submissions with a motherboard of the specified vendor. As usual, the safe name is required, meaning whitespace and '-' has to be replaced by '_'. Partial matching works. Example: msi, gigabyte, asrock, ecs.
mbManufacturerId	limit results to submissions with the specified motherboard manufacturer ID. Manufacturer ID can be retrieved from /api/submissions responses.
mbChipset	limit results to submissions with the specified motherboard chipset name, again, the safe name is required as it appears in URLs, http://hwbot.org/chipset/p55 . Example: nforce4_ultra, p55.
mbChipsetId	limit results to submissions with the specified motherboard chipset ID.
mbChipsetBatch	limit results to submissions with this exact motherboard chipset batch string.
mbCoolingId	limit results to submissions with the specified cooling type as motherboard cooling. The different types of cooling and their ID were listed at the beginning of the hardware parameters.

parameter	description
memManufacturer	limit results to submissions with memory of the specified vendor. As usual, the safe name is required as it appears in URLs, meaning whitespace and '-' has to be replaced by '_'. Partial matching works. Example: gskill, ocz.
memManufacturerId	limit results to submissions with the specified memory manufacturer ID. Manufacturer ID can be retrieved from /api/submissions responses.
memProduct	limit results to submissions with memory of the specified product group. To get productgroup names, you can find them using the browse memory page, example http://hwbot.org/hardware/memoryproduct/ripjawsx/ . Partial matching works. Example: 'ripjawsx', 'dominator gt', 'dominator_gt' (both work).
memProductId	limit results to submissions with the specified memory productgroup id. This ID can be retrieved from /api/submissions responses, as the MEM model ID.
memType	limit results to submissions with memory of the specified type. The different types can be found on the browse memory page, http://hwbot.org/hardware/memory . Examples: ddr_sdr, ddr3.
memTypeId	limit results to submissions with the specified memory type id. This ID can be retrieved from /api/submissions responses.



parameter	description
memFreq	limit results to submissions with a lower or higher clock than memFreq. Use memFreqOperator of the type Operator to indicate 'more_or_equal', 'less_or_equal' or 'equal'.
memTCas	limit results to submissions with a lower or higher TCas than memTCas. Use memTCasOperator of the type Operator to indicate 'more_or_equal', 'less_or_equal' or 'equal'.
memBatch	limit results to submissions with this exact memory batch string.
memCoolingId	limit results to submissions with the specified cooling type as memory cooling. The different types of cooling and their ID were listed at the beginning of the hardware parameters.

parameter	description
diskManufacturer	limit results to submissions with disks of the specified vendor. As usual, the safe name is required as it appears in URLs, meaning whitespace and '-' has to be replaced by '_'. Partial matching works. Example: western, intel, ocz.
diskManufacturerId	limit results to submissions with the specified disk manufacturer ID. Manufacturer ID can be retrieved from /api/submissions responses.
diskProduct	limit results to submissions with disk of the specified product group. To get productgroup names, you can find them using the browse disks page, example http://hwbot.org/hardware/diskproduct/caviar_black/ . Partial matching works. Example: 'x25_m', 'caviar black', 'caviar_black' (both work).
diskProductId	limit results to submissions with the specified disk productgroup id. This ID can be retrieved from /api/submissions responses, as the DISK model ID.
diskCapacity	limit results to submissions with a lower or higher capacity than diskCapacity (for 1 disk). Use diskCapacityOperator of the type Operator to indicate 'more_or_equal', 'less_or_equal' or 'equal'.

parameter	description
psuManufacturer	limit results to submissions with a psu of the specified vendor. As usual, the safe name is required as it appears in URLs, meaning whitespace and '-' has to be replaced by '_'. A list of manufacturers can be found on the browse power supplies page. Partial matching works. Example: be_quiet, enermax
psuManufacturerId	limit results to submissions with a psu of the specified vendor ID. Manufacturer ID can be retrieved from /api/submissions responses.



parameter	description
psuProduct	limit results to submissions with a power supply with the specified name. To get product names, check the browse power supplies page, example http://hwbot.org/hardware/psuproduct/revolution85+/ . Partial matching works. Example: 'revolution85+', 'liberty dxx', 'liberty_dxx' (both work).
psuProductId	limit results to submissions with the specified psu product id. This ID can be retrieved from /api/submissions responses, as the PSU model ID.
psuWatt	limit results to submissions with a psu with lower or higher wattage than psuWatt. Use psuWattOperator of the type Operator to indicate 'more_or_equal', 'less_or_equal' or 'equal'.

Response

As an example, we look for the best submission Geforce 600 series for 3dmark11 - performance in Europe, in the Enthusiast league . Additional requirements: water cooling used for gpu, picture must be attached and max gpu core frequency is 1200 Mhz. The request would look like this:

http://hwbot.org/api/submissions?regionCode=europe&league=enthusiast&application=3dmark11_-_performance&gpuCoolingId=3&pictureAttached=true&gpuFamily=geforce_600&gpuCoreFreq=1200&gpuCoreFreqOperator=less_or_equal&limit=1

The response would look like this (remember, if you prefer JSON output, put Accept: application/json in the request header):

```
<response>
  <numberofresults>1</numberofresults>
  <results>
    <submission
url="hwbot.org/submission/2308096_vego_3dmark11___performance_4x_geforce_gtx_680_28107_marks"
id="2308096">
      <user id="42314">Vego</user>
      <benchmark id="29">3DMark11 - Performance</benchmark>
      <score>28107 marks</score>
      <date>2012-08-19T18:45:11+00:00</date>
      <team id="3492">Actina</team>
      <country id="176">Poland</country>
      <!--contest id="0">Contest name if applicable</contest>
      <stage id="0">Stage name if applicable</stage-->
      <league>enthusiast</league>
      <ranking>
        <globalrank>28</globalrank>
        <hwrnk>6</hwrnk>
        <wrpoints>75.0</wrpoints>
        <globalpoints>12.7</globalpoints>
        <hwpoints>0.5</hwpoints>
        <gtppoints>14.4</gtppoints>
        <htppoints>2.1</htppoints>
      </ranking>
      <!--state id="1">submission state if applicable (e.g. checked by moderator)</state-->
      <description>few points more with 5044MHz clock:
```



<http://www.3dmark.com/3dm11/4164332> but no screenshot, closed it too fast :(

everything whats to know about this project

<http://www.techpowerup.com/forums/showthread.php?t=169178>

```
</description>
<screenshot>hwbot.org/image/830329</screenshot>
<pictures>
  <picture>hwbot.org/image/830328</picture>
</pictures>
<hardware>
  <component type="CPU">
    <amount>1</amount>
    <cooling id="3">Water Cooling</cooling>
    <frequency>5024 Mhz</frequency>
    <model id="2469">Core i7 3960X</model>
  </component>
  <component type="GPU">
    <amount>4</amount>
    <cooling id="3">Water Cooling</cooling>
    <frequency>1151/1724 Mhz</frequency>
    <model id="1913">GeForce GTX 680</model>
    <vendor id="195">MSI</vendor>
  </component>
  <component type="MB">
    <cooling id="3">Water Cooling</cooling>
    <model id="24251">Big Bang XPower II</model>
    <vendor id="195">MSI</vendor>
  </component>
  <component type="MEM">
    <cooling id="1">Standard Stock Cooling</cooling>
    <frequency>2133.0 Mhz</frequency>
    <model id="174">RipjawsZ</model>
    <type id="1">DDR3 SDRAM</type>
    <vendor id="975">G.SKILL</vendor>
  </component>
  <component type="DISK">
    <capacity>120 GB</capacity>
    <vendor id="120">Intel</vendor>
  </component>
  <component type="PSU">
    <capacity>1500 watt</capacity>
    <vendor id="1055">SilverStone</vendor>
  </component>
</hardware>
</submission>
</results>
</response>
```

<results> contains a list of <submission> if there's more than 1 result. Note that <numberOfResults> is capped by limit. This means that if there are more than 20 results and limit is 20, <numberOfResults> will still be 20. To get results 20-40, use the offset parameter.



If your request generated an error, the response would look like this:

<http://hwbot.org/api/submissions?applicationId=notanumber>

```
<response>
  <errors>
    <error>Failed to convert property value of type 'java.lang.String' to required type
'java.lang.Integer' for property 'applicationId'; nested exception is
org.springframework.core.convert.ConversionFailedException: Unable to convert value "notanumber"
from type 'java.lang.String' to type 'java.lang.Integer'; nested exception is
java.lang.NumberFormatException: For input string: "notanumber"</error>
  </errors>
  <numberofresults>0</numberofresults>
  <results>
</results>
</response>
```



Ranking

Parameters

This API, `/api/ranking`, can be used if you are just interested in the top submissions for a specific benchmark or contest. As such it only has 4 parameters. If you require a more advanced search, use `/api/submissions` (discussed in previous section).

parameter	description
application	use this if you want the top submissions made for benchmark with specified name. Spaces should be replaced with underscore '_'. The name has to be the same as it appears in URLs. Example SuperPi 1M: http://hwbot.org/benchmark/superpi_-_1m/ , the name is <code>superpi_-_1m</code> .
contestId	use this if you want the top submissions made for a contest with the specified contest ID. Contest IDs can be retrieved by using the <code>/api/competition</code> API.
limit	maximum number of submissions returned. Default is 20, max is 100.
always200OK	Boolean, possible values 'true' or 'false'. If your request generated an error, the HTTP status of the response (which contains an error message) will be 400. If you do not want this, set <code>always200OK</code> to true.
jsoncallback	provide a JSON callback function.

Response

Example request, return the top SuperPi - 1M score. The result is concise and only contains basic information about the submission. If you require a more detailed result, use `/api/submissions`. `<numberofresults>` returns the total number of submissions for a benchmark if the `application` parameter was used, regardless of the `limit` parameter. If however, `contestId` was used, `<numberofresults>` is bound by the `limit` parameter. If the request produces an error, an error response like the one described in the previous section is returned.

http://hwbot.org/api/ranking?application=superpi_-_1m&limit=1

```
<response>
  <numberofresults>495</numberofresults>
  <results>
    <submission url="hwbot.org/submission/2307901_mad222_superpi___1m_core_i7_3770k_5sec_171ms"
id="2307901">
      <user id="25250">Mad222</user>
      <score>5sec 171ms</score>
      <date>2012-08-18T18:23:39+00:00</date>
      <team id="2306">HKEPC OC Lab</team>
      <country id="98">Hong Kong</country>
      <league>pro_oc</league>
```



COLARDYN IT GCV

```
<ranking>  
  <globalrank>1</globalrank>  
  <hwrank>3</hwrank>  
</ranking>  
<description>Core i7 3770K at 6937.9Mhz</description>  
</submission>  
</results>  
</response>
```




Members

Parameters

The API to search for members uses the same parameters that can be used for the existing search members form (<http://hwbot.org/search/members>). This means that all the form options can be used for the API, plus some extras. Note that parameters are case sensitive! The parameter values however, are not. Some parameters have an extra parameter, of the type **Operator**. Possible values are 'more_or_equal', 'less_or_equal', 'equal'. For example, to get all users with a league rank of 1 to 10, set rank to 10 and rankOperator to less_or_equal.

parameter	description
ids	comma-seperated list of user IDs. A user ID can be retrieved from API responses, it is included as a <user> attribute.
name	search for member with the specified name. The safe name of a user is required, as it appears in URLs. The following transformations are required: replace ' ' with 'i', '@' with 'a' and whitespace and '-' with '_'. Example: k ngp n (http://hwbot.org/user/kingpin) becomes kingpin.
team	members from team with specified name. Again, the safe name is required, as it appears in URLs (see name parameter description). The same transformations are required.
teamId	submissions made for team with specified ID. TeamId is included in API responses as a <team> attribute.
league	members from a specified league. Possible values: 'enthusiast', 'oc' and 'pro_oc'.
countryCode	members from the specified country. CountryCode should be the ISO standard code.
regionCode	members from the specified region. For possible values, check the region list on the search page, http://hwbot.org/search/members . Remember that whitespace has to be replaced with an underscore '_'.
dateBefore	members that joined before the specified date. Format is YYYY/MM/DD, for example: 2012/12/21
dateAfter	members that joined after the specified date.
userPoints	members that have received more or less user points (this is the total number of points in their league) than the specified number. Use userPointsOperator of the type Operator to indicate 'more_or_equal', 'less_or_equal' or 'equal'.



parameter	description
rank	members that are ranked lower or higher than the specified rank. Use rankOperator of the type Operator to indicate 'more_or_equal', 'less_or_equal' or 'equal'. Example: if you want top 10, set rankOperator to less_or_equal.
limit	maximum number of members returned. Default is 20, max is 100.
offset	used to enumerate through members. For example if there are 1000+ results, you can set offset to 1000 to start at result 1000.
orderBy	sort the results according to the specified value. Possible values are: 'name' (alphabetically) and 'rank'.
always200OK	Boolean, possible values 'true' or 'false'. If your request generated an error, the HTTP status of the response (which contains an error message) will be 400. If you do not want this, set always200OK to true.
jsoncallback	provide a JSON callback function.

Response

Example request, return members with more than 1000 user points. Note that <numberofresults> returns the limit parameter if the real number of results is bigger than limit. If the request produces an error, an error response like the one described in the submissions query API section is returned.

http://uat.hwbot.org/api/members?userPoints=1000&userPointsOperator=more_or_equal

```
<response>
  <numberofresults>1</numberofresults>
  <results>
    <member url="hwbot.org/user/k404" id="3554">
      <name>K404</name>
      <country id="230">United Kingdom</country>
      <league>oc</league>
      <joindate>2006-03-01T16:00:00+00:00</joindate>
      <ranking>
        <rank time="today" rank="1" hwboints="1164.20" results="48"/>
        <rank time="yesterday" rank="1" hwboints="1164.20" results="48"/>
        <rank time="lastweek" rank="1" hwboints="1164.20" results="48"/>
        <rank time="lastmonth" rank="1" hwboints="1164.20" results="48"/>
      </ranking>
      <awards>
        <awards type="global" gold="1" silver="4" bronze="2" medal="1"/>
        <awards type="hardware" gold="12" silver="9" bronze="5" medal="3"/>
      </awards>
    </member>
  </results>
</response>
```



Benchmarks

Parameters

This API, found at <http://hwbot.org/api/benchmarks>, can be used to easily search for benchmarks used on HWBOT. Note that parameters are case sensitive! The parameter values however, are not.

parameter	description
ids	comma-separated list of benchmark IDs. A benchmark ID can be retrieved from API responses, it is included as a <benchmark> attribute.
name	search for benchmark with the specified name. The name has to be as it appears in an URL. Whitespace has to be replaced with underscores '_'. Example: 'SuperPi - 1M', URL is http://hwbot.org/benchmark/superpi_-_1m/ , so for the API, use 'superpi_-_1m'. Partial matching is supported. 'superpi' will match SuperPi - 1M and SuperPi - 32M.
type	search for benchmarks of the specified type. Possible values are 'CPU', 'GPU', 'MEM', 'DISK', 'MBMODEL'.
countryCode	benchmarks specific for a the specified country. CountryCode should be the ISO standard code. Currently, there are no country specific benchmarks on HWBOT, but this might change in the future.
regionCode	benchmarks specific for a specified region. For possible values, check the region list on the search page, http://hwbot.org/search/members . Remember that whitespace has to be replaced with an underscore '_'. Currently there are no region specific benchmarks on HWBOT, but this might change in the future.
wrpoints	Boolean 'true' or 'false'. Benchmark submissions are awarded world record points.
glpoints	Boolean 'true' or 'false'. Benchmark submissions are awarded global points.
hwpoints	Boolean 'true' or 'false'. Benchmark submissions are awarded hardware points.
multithreaded	Boolean 'true' or 'false'. Benchmark benefits from multiple CPU/GPU cores.
onlyParentApplication	Boolean 'true' or 'false'. If true, only benchmarks that have one or more child benchmark are returned. For example: SuperPi - 1M is the parent application of SuperPi - 32M.
always200OK	Boolean, 'true' or 'false'. If your request generated an error, the HTTP status of the response (which contains an error message) will be 400. If you do not want this, set always200OK to true.
jsoncallback	provide a JSON callback function.



Response

Example request, return the benchmark with id 7. If the request produces an error, an error response like the one described in the submissions query API section is returned.

<http://hwbot.org/api/benchmarks?ids=7>

```
<response>
  <numberofresults>1</numberofresults>
  <results>
    <benchmark name="SuperPi - 32M" id="7">
      <safename>superpi_-_32m</safename>
      <website/>
      <downloadlink>http://91.121.148.119/downloads/benchmarks/super\_pi\_mod.exe</downloadlink>
      <type>CPU</type>
      <supportedversions>
        <!-- if only specific versions are allowed, they are listed here
              if empty, all versions are allowed -->
        <version/>
      </supportedversions>
      <wrpoints>>false</wrpoints>
      <glpoints>>true</glpoints>
      <hwpoints>>true</hwpoints>
      <multithreaded>>false</multithreaded>
      <!-- id of the parent benchmark (SuperPi - 1M) -->
      <parentid>3</parentid>
    </benchmark>
  </results>
</response>
```



Competitions

Parameters

This API, found at <http://hwbot.org/api/competitions>, can be used to easily search for competitions or challenges that appeared on HWBOT. Note that parameters are case sensitive! The parameter values however, are not.

parameter	description
ids	comma-seperated list of competition IDs. A competition ID can be retrieved from API responses, it is included as a <contest> attribute for submissions.
name	search for competition with the specified name. The name has to be as it appears in an URL. Whitespace has to be replaced with underscores '_'. Example: 'country_cup_2012'. Partial matching is supported. 'country_cup' will match all the Country Cups
type	search for competition of the specified competitor type. Possible values are 'user', 'team' and 'country'.
tag	Some competitions are grouped by a certain tag on HWBOT, see http://hwbot.org/competitions : Pro OC, MOA, GIGABYTE, etc.
closed	Boolean 'true' or 'false'. Search for open or closed competitions only.
event	Boolean 'true' or 'false'. Search for competitions that had a live event.
challenge	Boolean 'true' or 'false'. Search for only competitions or only challenges.
level	Integer '1', '2' or '3'. Search for competitions with a certain level.
startBefore	Date, YYYY/MM/DD, competitions that started before this date.
startAfter	Date, YYYY/MM/DD, competitions that started after this date.
endBefore	Date, YYYY/MM/DD, competitions that ended before this date.
endAfter	Date, YYYY/MM/DD, competitions that ended after this date.
always200OK	Boolean, 'true' or 'false'. If your request generated an error, the HTTP status of the response (which contains an error message) will be 400. If you do not want this, set always200OK to true.
jsoncallback	provide a JSON callback function.



Response

Example request, find the 2011 Country Cup. If the request produces an error, an error response like the one described in the submissions query API section is returned.

http://hwbot.org/api/competitions?name=country_cup&startAfter=2011/01/01&startBefore=2011/12/31

```
<response>
  <numberofresults>1</numberofresults>
  <results>
    <competition safename="country_cup_2011" id="115">
      <name>HWBOT Country Cup 2011</name>
      <startdate>2011-11-19T12:00:00+00:00</startdate>
      <enddate>2011-12-30T23:59:00+00:00</enddate>
      <type>country</type>
      <externalurl/>
      <level>2</level>
      <closed>true</closed>
      <event>false</event>
      <challenge>false</challenge>
      <participants>28</participants>
    </competition>
  </results>
</response>
```