lolMiner 0.41
Manual

For basic settings like changing pool and user settings and how to select a user profile please refer to the quickstart manual.

This document presents further options when running lolMiner 0.41.

Using settings from Command line

Every normal option that can be passed to the miner via configuration file can also be passed to the miner by using the command line. The general syntax is if the parameter in configuration file is a pair "KEY" : "VALUE", then the command line equivalent is given by -KEY=VALUE. For example

```
./lolMiner -profile=EXAMPLE1 -digits=2
```

will overwrite any "DIGITS" : <some number> entry from config file. Generally the values in command line have higher priority then those from other sources.

For adding connection information use the parameters
-pool=<somePoolAddress>
-port=<thePoolsPort>
-user=<userName.workerName>
and (optionally) -pass=<yourWorkerPassword> (the default is "x").

Internally this will create a pool list with one entry corresponding to the given data. Giving fail-over pools is currently not supported over command line.

Changing the Mining Devices

The parameter "DEVICES" can be modified in the following way:

"DEVICES" : "AUTO" : Mine will all found AMD & Nvidia GPUs in your rig
"DEVICES" : "AMD" or "DEVICES" : "NVIDIA" : Mine will all GPUs from one of the vendors (only works with official vendor drivers, with 3rd party and opensource drivers this may not work)
"DEVICES" : [0,1,3] work with the first, second and 4th device of your rig. You can explicitly control which GPUs to use, but stay within the range 0 to #GPUs-1 and every GPU id may only appear once.

For selecting the devices in command line you can use -device= and then a comma seperated list of device numbers or "AUTO", "AMD" or "NVIDIA", e.g. -devices=0,1,2.

Activating the API

The parameter "APIPORT" : <somePortNumer> controles the activation of the lolMiner API. When a port numer > 0 is set the miner will try to open the selected port and the mining rig will be able to accept connections on this port.
When connecting, lolMiner returns current mining statistics in JSON format. For example:

```
{
    "Software": "lolMiner 0.4",
    "Startup": "2018-07-22 22:08:37 ",
    "Coin": "MinexCoin (MNX)",
    "Algorithm": "Equihash 96.5",
    "LastUpdate(5s)": "22:33:46 ",
    "LastUpdate(60s)": "22:32:55 ",
```

```
    "GPU0": {
        "Name": "AMD Radeon (TM) RX 480 Graphics",
        "Speed(5s)": "13468.8252",
        "Speed(60s)": "13429.5117"
    },
    "GPU1": {
        "Name": "Radeon RX 580 Series",
        "Speed(5s)": "11253.1973",
        "Speed(60s)": "11262.5537"
    }
}
```

Trouble-Shooting:
If lolMiner is not allowed to open the port there will be a hint "access denied" on startup. The mining process itself is not affected by this, but the API will not work. We recomment trying an other port, best in the 4 digit range.

Modify the Statistics Output

All parameters described in this section can be seen in the EXAMPLE2 profile in the shipped user_config.json.

With the parameters "SHORTSTATS" : <number> and "LONGSTATS" : <number> you can modify the two statistic interval length. The number should be an integer and the values will be handled as seconds. Setting one or both values to 0 will deactivate the corresponding statistics print as well in console as in the API.

The parameter "DIGITS" : <number> can be used to fix the sol/s output of a GPU to a fixed number of digits after the decimal delimiter. For example "DIGITS" : 0 will chop of all digits after the decimal delimiter. The default for this parameter is 1.

The parameter "TIMEPRINT":1 or -timeprint=1 will activate the current daytime to be printed in the commandline console at each statistics output.

The parameter "SHORTACCEPT":1 or -shotaccept=1 will replace the "submitting share / share accepted" message pair by * symbols at the short statistics interval output. Every star stands for an accepted share.

Chosing new locations for the config file and the kernel directiory

A new config file name can only be chosen by commandline parameter -usercfg=<pathToFile>, replacing the ./user_config.json. The path can be absolute or relative to the current execution directiory.

The kernels direction can be chosen by the parameter "KERNELSDIR" : "pathToDir" or -kernelsdir= (in command line). Again the path can be relative or absolute, the default is "./kernels".

Adjusting the Failover Pool Function

By the parameter "CONNECTION_ATTEMPTS" : <someNumber> you can specify how many connection attempts are done before the miner tries to switch to the failover pool for the first time.

By the parameter "RECONNECTION_TIMER" : <someNumber> you specify the minutes on how long the miner should stay on a failover pool before attempting to reconnect to the first priority pool. If that is still not reachable, the miner will reconnect to the first avaiable fail-over pool. Setting the number to 0 will deactivate reconnection attempts, unless the end of the list of fail-over pools is reached at some time.

Setting the WorkBatch (MNX, Equihash 96.5 only)

The Equihash 96.5 algorithm uses only few memory, so the GPU can handle multiple instances of this algorithm at once. The parameter "WORKBATCH" : <number or special value> controles how many will be spawned simultanously. If a number is given this will be applied to all GPUs running the same time. Instead if one of the special values is given each GPU will be adjusted to its own value. The following values are allowed:

"VERYLOW"	The miner will use at most 20% of the GPU memory
"LOW"	The miner will use at most 40% of the GPU memory
"MEDIUM"	The miner will use at most 60% of the GPU memory
"HIGH"	The miner will use at most 80% of the GPU memory
"VERYHIGH"	The miner will use at most 100% (minus few MByte) of the GPU memory

Note that usually the settings "HIGH" and "VERYHIGH" give the best performance, in particular on AMD hardware. Also note that using "VERYHIGH" is not recommented when the GPU also does graphical output. This value should only be selected on headless rigs.
The default value is "MEDIUM".

Note: On Windows the AMD driver requires the same ammount of RAM as GPU memory is requested on startup. If your system is suffering from too few RAM or a too small virtual memory the miner may crash or produce 0 sol/s on some cards. To mitigate this increase the fixed space of the temporary virtual memory or use a lower value for "WORKBATCH".

Running Benchmark Mode

To see what cards are detected by lolMiner you can run it for a small benchmark. In order to do so you can open the command line and change to the lolMiner directiory. Then execute ./lolMiner -benchmark=<coinShortCuT> (Linux) or ./lolMiner.exe -benchmark=<coinShortCuT> (Windows) and the miner will start. If you specified the longStats interval in the default section of the config file this will determine the length of the benchmark run. The coin shortcut can be any of those given in the table in the quick start guide.