lolMiner-mnx 0.33
User Documentation

General usage notes

lolMiner-mnx is a software for stratum pool mining with the Equihash 96/5 algorithm (MARS). The software is provided as it is without any warranty. The usage of the software is free without any charge. This said it will mine 1.5% for the developer in the background. The displayed sol/s are netto solutions, so what the user gets.

lolMiner-mnx can be used in two ways: from command line or by using a configuration file. To use such a file one has to run

```
lolMiner-mnx.exe --use-config <filename> (Windows) or
lolMiner-mnx --use-config <filename> (Linux).
```

The configuration files are plain text files that contain the ordinary command line parameters of lolMiner-mnx as rows, one parameter including the double minus signs per line. The parameters have to be in first place of the line to be detected. If an additional value is passed to the parameter, e.g. a number, then it has to be separated from the parameter itself by exactly one blank. An example file is shipped in the file example_config.cfg.

A mixed mode of command line parameters and a configuration file is possible. Each parameter passed to the command line will override the values passed by the configuration file. This allows testing parameters before they are written to a configuration file.

In the following we will describe the parameters that lolMiner-mnx can handle.

User and Server Settings & Fail-over Support

```
--server <pool addresses>, --port <pool ports>
```

This sets the address and port of the mining pool to connect to. From lolMiner-mnx 0.3 comma separated lists are accepted that have to be of the same length. When lolMiner-mnx failed too often on the same connection it will try to connect to the next pool in list as **fail-over support.** When at the end of the list the pool in the beginning will be tried next. This feature may help preventing income losses due to offline mining pools.

```
--user <usernames.workernames>, --pass <user passwords>
```

These parameters set the user name and the password for the pool to connect to. If the password parameter is not used, "x" will be used as password for all usernames. If multiple servers are given one has to give the same number of user names, also as a comma separated value. When connecting to the mining pool the pool will be asked to authorize the worker. If the authorization message is returning an error the miner will close.

```
--max-connection-attempts <number>
```

This parameter defines the maximal number of connection attempts before the miner tries to connect to the next pool. The minimum is 1, the default value is 5.

```
--set-reconnection-timer <number>
```

If this parameter is set and the miner is connected to a fail-over pool, it will do a retry to connect to the primary pool after <number> minutes. The minimum possible is 5 minutes, the default is 30 minutes. If <number> is set to 0 the reconnection feature will be disabled and the miner will continue to mine of the fail-over pool.

Benchmark Mode

When no pool or user settings are passed to the miner it will run without connection for one minute and display the speed of the devices. All other parameters apply as expected.

Device and Performance Settings

```
--platform <number>, --device <device numbers>, --list-devices
```

OpenCL is organized in platforms, that correspond to the driver to be used for the Miner. On many system – in particular when the CPU features an integrated graphic card – there is more then one platform on the system available.

The parameter platform can be used to select the right platform. lolMiner offers the option **--list-devices**. When lolMiner is started with this parameter it will print out a list with all platforms that were found on the system. Additionally for every platform all devices are printed that are found within a platform.

After printing out the miner will close directly. **To see the output in Windows** you must run cmd (the Windows command line), navigate to the directory where lolMiner-mnx.exe is in and then run lolMiner-mnx.exe --list-devices directly from the command line. Writing the --list-devices to the configuration file is not supported and running in the batch will end up in the miner closing instantaneously and you do not see a print out.

From lolMiner-mnx 0.3 there is one special value **AUTO** that can be passed to the miner and also is the default. This one will select the platform with the most graphic cards automatically. If there are two with the same number, e.g. and Intel integrated GPU and one AMD / Nvidia graphic card it will prefer the non-Intel platform.

Within the platform also the devices to be used must be selected. As for other parameters you can use a comma separated list to mine on multiple GPUs. Note that the first device is numbered by the number 0.

From lolMiner-mnx 0.3 there are two special values **ALL** and **ALLGPU** (default), that will select all devices or all graphic cards in the selected platform. Note then when using `--device ALL` on a processor with integrated graphics the miner will mine as well on the integrated graphics and on the CPU part. For most configurations this is not recommended.

```
--set-work-batch <number or special value>
```

This parameter controls the amount of work that is send to the graphic card at the same time and how many results are unloaded from the GPU in one batch. Using a higher number will cause more GPU memory to be used. On the other hand a high number also reduces the overhead from the OpenCL api. The parameter accepts a single integer number from 1 to 24 included.

From lolMiner-mnx 0.3 there are three special values **2G**, **AUTO** and **HIGH**. When the work batch is set to **2G** the miner is allowed to use 2 gigabytes of graphic memory at most. At level **AUTO** it will use at most

60% of the graphic cards memory and at level **HIGH** 90%. Note that AUTO and HIGH operate on per-GPU level, so mixing graphic cards with different memory sizes is no problem.

For Windows and AMD graphic cards there currently is a problem with lolMiner-mnx and the driver preventing that the miner works with more then 2 gigabytes of memory. Therefore the default for the Windows version is **2G**, while the default for the Linux version is **AUTO**. This causes lolMiner-mnx 0.3 to be slightly faster on Linux compared to Windows when using AMD graphic cards. The restriction does not apply for Nvidia graphic cards. For this GPU it should be save to use AUTO on any operation system.

```
--optim <special value>
```

This parameter controles the level of optimization of the miner. For most graphic cards the default value **STD** is the fastest. On some Nvidia graphic cards, e.g. GT 1030, GTX 1050 (Ti) and older cards (8X00M, GTX 750 Ti and lower) we observed that the second opportunity **OFF** is faster.

```
--use-alt-mine-thread
```

This is a parameter for compatiplity reasons that will use the old style of lolMiner-mnx 0.13 to schedule work on the graphic cards. Use this only when necessary. e.g. on Intel graphic cards. This will deactivate the multiple GPU feature, so only one graphic card can be used in one lolMiner-mnx instance.

Display Settings

```
--set-short-stats-interval <number>
```

Set the interval length between the short time statistics output to <number> seconds. Default is 5. Choosing 0 will deactivate the output.

```
--set-long-stats-interval <number>
```

Same as for short interval. The default is 60. Choosing 0 will deactivate the output. The interval will also set the duration of the benchmark mode.

```
--use-compact-short-stat
```

This parameter will make lolMiner-mnx to print the short statistics in a similar style as the long statistics but without the surrounding dashed lines. Therefore one single line will be used for all devices instead of one line per device.

```
--use-compact-accept-msg
```

This parameter will replace the standard "Submitting share / Share accepted" messages by *-symbols behind the short stats messages. Using this switch will automatically also activate `–use-compact-short-stat.`

```
--enable-time-print
```

This parameter will make lolMiner-mnx to print the current system time in format HH:MM:SS before each statistics line. This applies as well to the long as to the short statistics.

Misc Settings

```
--exit-on-zero
```

This parameter will cause lolMiner-mnx to check the speed of each device when printing out the long statistics. If an device is detected with 0 sol/s (thus it was idle on the long statistics intervall) the miner will quit, so it can be restarted from a watchdog script.

```
 --set-sleep-duration <number>
```

This will set the sleep time between the attempts of the miner software polling the GPU if it has its work done. The number is treated as microseconds. The default is 1000 microseconds, equals one millisecond. Setting the value to 0 will deactivate any sleeping. This may help to reduce problems when the CPU load on the overall system is high, but it will make the miner to use one full CPU core for polling the GPU as fast as it can. Use with care.