User experience:

1. Real-time Performance

To make sure our program running smoothly at users’ computers, we conduct closed beta tests and public beta tests.

* + 1. Closed beta test:

In order to provide a reliable and excellent running performance, we mimic most of the possible situations when running our program in closed beta tests. Our tests are mainly focus on four aspects: number of running program, running mode, computer environments and mining mode. Each kind of test is running for at least three times to make sure result is reliable. Also, most of the running time of testing is more than one hour which is to make sure our program could run persistently and stably.

Test Result:

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Running Mode | Running  Environment | #opening programs1 | Mining Mode | Test Running Time | Program Open Time2 | Program close Time3 | React Time4 | Running Smoothness  (Bad, Normal,  Good) |
| Foreground | Light loaded:  CPU occupied <= 20%  GPU occupied <= 20% | 1 | Mining | 1.5H | <1s | <1s | <1s | Good |
| Not Mining | 1.5H | <1s | <1s | <1s | Good |
| 3 | Mining | 1H | <1s | ~2s | ~1.5s | Normal |
| Not Mining | 1H | <1s | ~2s | <1s | Good |
| Heavy loaded:  CPU occupied >= 20%  GPU occupied >= 20% | 1 | Mining | 1.5H | <1s | <1s | <1s | Good |
| Not Mining | 1.5H | <1s | <1s | <1s | Good |
| 3 | Mining | 1H | <1s | ~4s | ~1.5s | Normal |
| Not Mining | 1H | <1s | ~2s | <1s | Normal |
| Background | Light loaded:  CPU occupied <= 20%  GPU occupied <= 20% | 1 | Mining | 1.5H | <1s | <1s | Not appliable | Good |
| Not Mining | 1.5H | <1s | <1s | Good |
| 3 | Mining | 1H | <1s | ~1s | Good |
| Not Mining | 1H | <1s | ~1s | Good |
| Heavy loaded:  CPU occupied >= 20%  GPU occupied >= 20% | 1 | Mining | 1.5H | <1s | <1s | Good |
| Not Mining | 1.5H | <1s | <1s | Good |
| 3 | Mining | 1H | <1s | ~1s | Good |
| Not Mining | 1H | <1s | ~1s | Good |
| 1: the number of our program opened for testing  2:If multiple of our program is opened, the time means the average time for opening each program  3:If multiple of our program is opened, the time means the average time for closing each program  4:The average response time for our program to response including the AutoOC, Start Mining and Search History | | | | | | | | |

* + 1. Public Beta test:

We totally invited 4 users to use our program for 3 days, all of them give the feedback of good performance, good smoothness and good react time.

Feedback:

|  |  |  |  |
| --- | --- | --- | --- |
| Volunteer No. | Performance Smoothness  (Bad, Normal, Good) | React Time  (Bad, Normal, Good) | Running Smoothness  (Bad, Normal, Good) |
| 1 | Good | Good | Good |
| 2 | Good | Good | Good |
| 3 | Good | Good | Good |
| 4 | Good | Good | Good |

1. Usability for real usage:

We also test all of our program’s functions to make sure our functions work properly. We also conduct closed beta test and public beta test with four volunteers. Our test covers the core functions of our programs including mining, retrieving GPU history, displaying correct GPU information, displaying correct mining information. In the tests, all these functions work well.

Result:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Public Beta Test | Volunteer No. | Mining Functions Correctly | Retrieving correct GPU history | Displaying correct GPU information | displaying correct mining information |
| 1 | Yes | Yes | Yes | Yes |
| 2 | Yes | Yes | Yes | Yes |
| 3 | Yes | Yes | Yes | Yes |
| 4 | Yes | Yes | Yes | Yes |
| Closed Beta test | | Yes | Yes | Yes | Yes |

1. Simplicity for normal user:

We include the following function or features in our program to make sure our program is user-friendly.

* + 1. Clear Design :
       1. Most of the buttons are marked with their corresponding functions to make sure users can always find their target functions quickly and know what they are doing.

图形用户界面

描述已自动生成

Figure: clear design in overclocking page

* + - 1. We separate main functions into several different pages and only provide necessary buttons to make sure our program looks [concise](javascript:;) and easy to use.

图形用户界面, 应用程序

描述已自动生成

Figure: separate functions into 8 pages

* + 1. User manual and tutorials:

We provide clear and detailed user manuals and quick tutorial videos (the demo videos) to help users understand all functions of our program.

* + 1. Remember users’ input and settings:

To help users get rid of troubles of remembering last input settings we save some necessary user inputs in the MinersCoffee.ini automatically which will make sure all the settings will remain the most recent one when users open the program.

图形用户界面, 文本, 应用程序

描述已自动生成

Figure: auto saved user inputs in MinersCoffee.ini

1. Interoperability to user:

We also include some features to make our program interact with users.

* + 1. Buttons showing status:

Buttons including the “Start Mining” and “AutoOC” will display their status by changing the text on the buttons after user click them.

图形用户界面

低可信度描述已自动生成 图形用户界面

中度可信度描述已自动生成

Figure: StartMining Button before clicked (left) and after clicked (right) (Notice the text is the button)

* + 1. Auto Overclocking:

After user clicked AutoOC, the program will change the overclocking settings for the GPU automatically. Also, it will move the sliders of the settings to visualize the change of the overclocking settings. User can also interact with these sliders and adjust these settings.

图形用户界面

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Figure: settings before AutoOC

图形用户界面

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Figure: settings before after clicking AutoOC

* + 1. Auto Fan Speed:

To prevent user from changing the fan speed after choosing the “Auto speed fan” mode, we hide the slider of the fan speed after user choose this mode. In this way, our program interact with users to show that fan speed is controlling automatically.

图形用户界面, 文本

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Figure: fan speed slider in normal mode

图形用户界面

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Figure: fan speed slider in “Auto speed fan” mode

* + 1. Rapidly response to feedback from users:

During developing, we invited some users to use our programs and give feedback. We always respond quickly to the users’ needs and make modification.

图形用户界面, 应用程序

描述已自动生成

Figure: responds quickly to users feedback