Class name: GPUMonitor

Header:

#include <QMainWindow>

#include <QSettings>

#include <QSystemTrayIcon>

#include <QThread>

#include <QtCharts/QChartView>

#include <QtCharts/QLineSeries>

#include <QtCharts/QCategoryAxis>

#include <QDateTimeAxis>

#include <QTimer>

#include <QDebug>

#include <QMessageBox>

#include <QMenu>

#include <QMenuBar>

#include <QCloseEvent>

#include <QLibrary>

#include <QDir>

#include <QFileDialog>

#include <QDateTimeAxis>

#include <QBarCategoryAxis>

#include <QScrollBar>

#include <QDateTime>

#include "nvidiaapi.h"

#include "structures.h"

Friend class: GeneralTest

Inherits: QThread

Description: GPU Monitor is an abstract class that calls API provided by GPU drivers to fetch real-time GPU status such as temperature, core clock, VRAM clock, fan speed, and power.

Key Protected Variables:

|  |  |
| --- | --- |
| float refresh\_rate = 3; | The refresh rate of GPU information. |
| QDateTime last\_refresh = QDateTime(); | The last time of GPU information refresh. |

Constructor:

**GPUMonitor**(QObject\* p = Q\_NULLPTR):

Parameters: Pointer to the parent object.

Return: None.

Task: Constructs a GPUMonitor object.

Public Methods:

virtual QList<GPUInfo> ***getStatus***() = 0:

Parameters: None.

Return: A list of GPU information.

Task: Call API provided by GPU driver to fetch and pack GPU information.

Signals:

void **gpusInfoSignalRefresh**(QList<GPUInfo> gpusinfo):

Task: Broadcast a list of newly fetched GPU information.

void **gpuInfoSignal**(unsigned int gpucount

, unsigned int maxgputemp

, unsigned int mingputemp

, unsigned int maxfanspeed

, unsigned int minfanspeed

, unsigned int maxmemclock

, unsigned int minmemclock

, unsigned int maxgpuclock

, unsigned int mingpuclock

, unsigned int maxpowerdraw

, unsigned int minpowerdraw

, unsigned int totalpowerdraw);

Task: Broadcast a set of newly fetched overall GPU information.