



实习总结答辩

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PART 01

工作概述

PART 02

功能展示

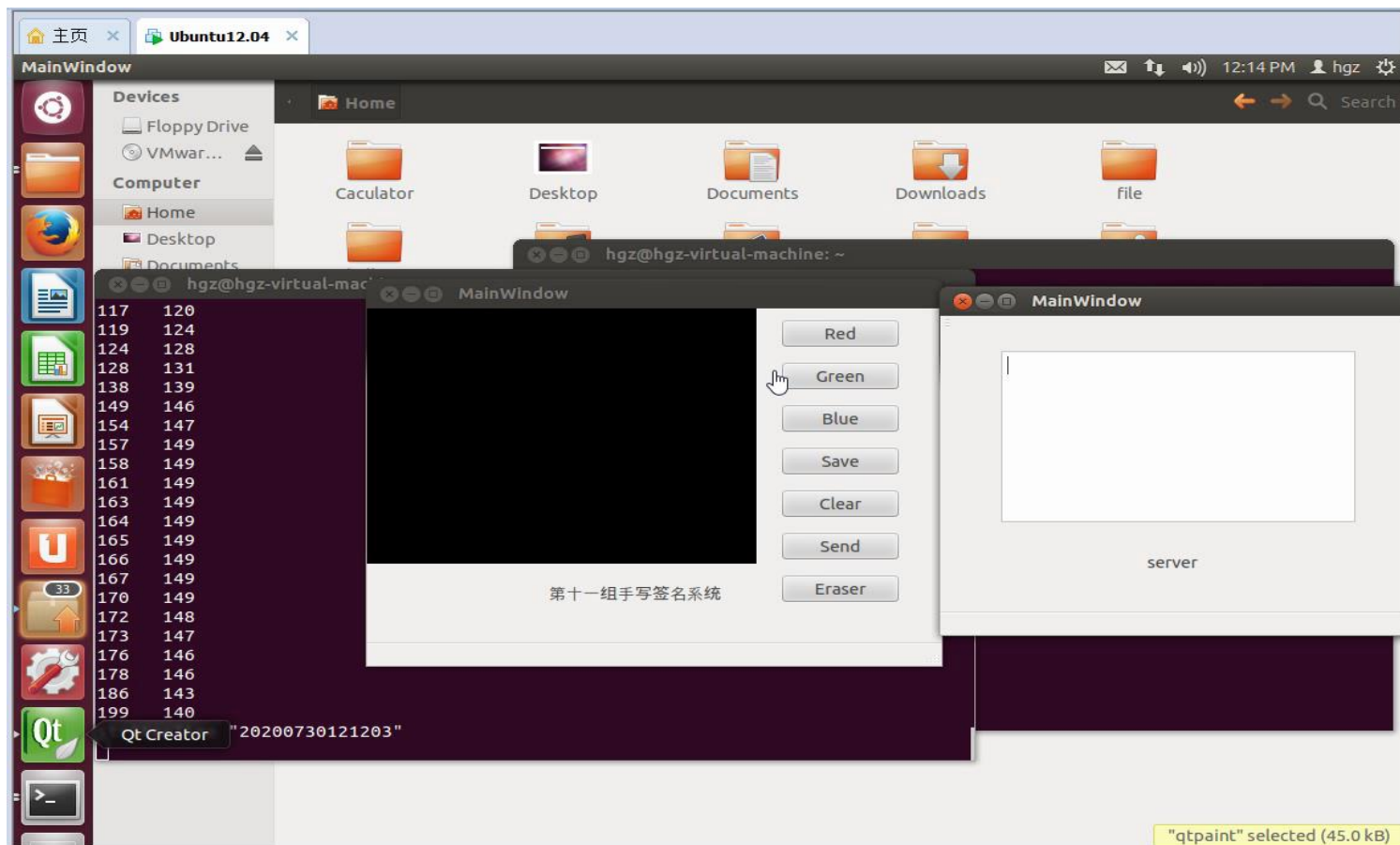
功能展示视频

PART 03

项目总结



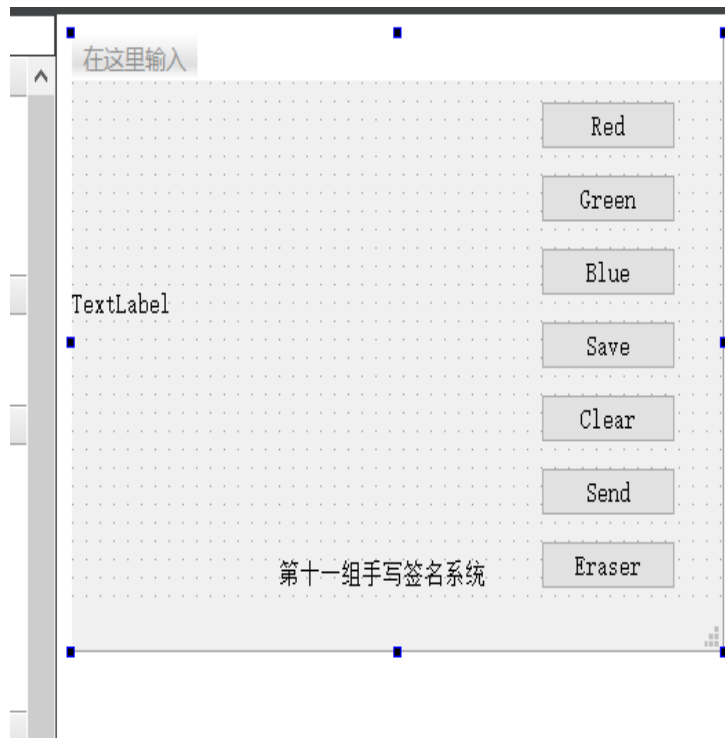
成果展示





组员分工

Ui界面设计：

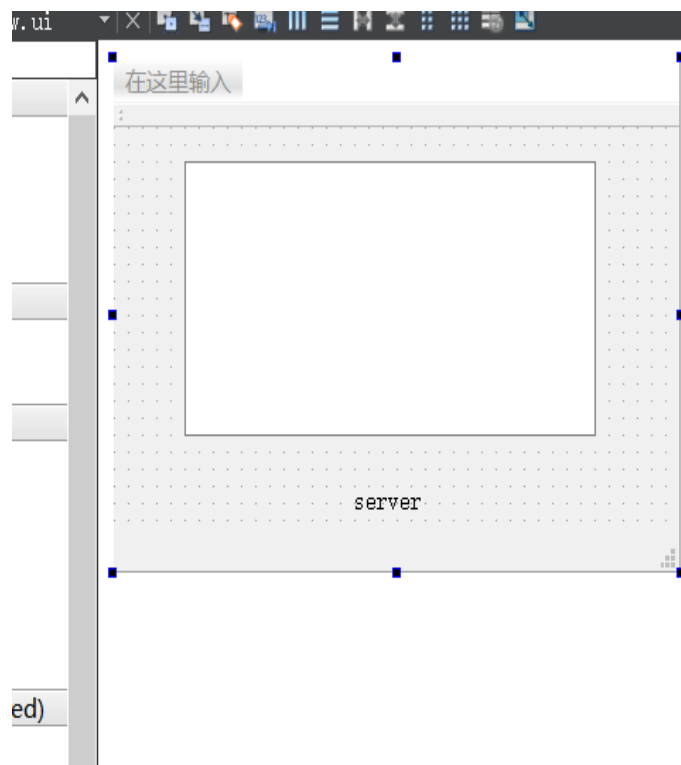


对象	类
MainWindow	QMainWindow
centralWidget	QWidget
label	QLabel
label_2	QLabel
pushButton	QPushButton
pushButton_2	QPushButton
pushButton_3	QPushButton
pushButton_4	QPushButton
pushButton_5	QPushButton
pushButton_6	QPushButton
pushButton_7	QPushButton
menuBar	QMenuBar
statusBar	QStatusBar



组员分工

Ui界面设计：



对象	类
MainWindow	QMainWindow
centralWidget	QWidget
label	QLabel
textEdit	QTextEdit
menuBar	QMenuBar
mainToolBar	QToolBar
statusBar	QStatusBar



组员分工

鼠标字迹获取代码：

```
void MainWindow::mousePressEvent(QMouseEvent * event)
{
    qDebug() <<event->x()<<" "<<event->y();
    int x=event->x();
    int y=event->y();

    QPainter painter(&imgpix);
    painter.setPen(pen);
    painter.drawPoint(x,y);

    ui->label->setPixmap(imgpix);
}

void MainWindow::mouseMoveEvent(QMouseEvent *event)
{
    qDebug() <<event->pos().x()<<" "<<event->pos().y();

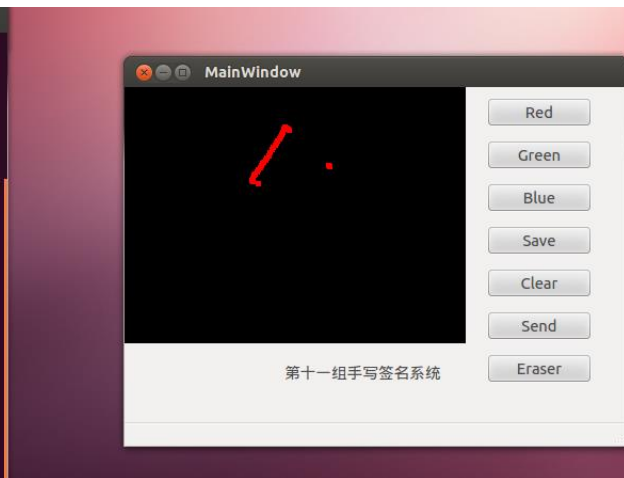
    int x=event->x();
    int y=event->y();

    QPainter painter(&imgpix);
    painter.setPen(pen);

    painter.drawPoint(x,y);

    ui->label->setPixmap(imgpix);
}
```

```
jason@jason-virtual-machine: ~/qtgcc
143 50
142 52
141 54
139 56
138 58
136 61
135 64
133 66
132 68
130 70
129 71
128 73
127 75
125 77
124 79
122 81
121 82
120 85
125 90
119 87
120 88
191 73
192 74
```





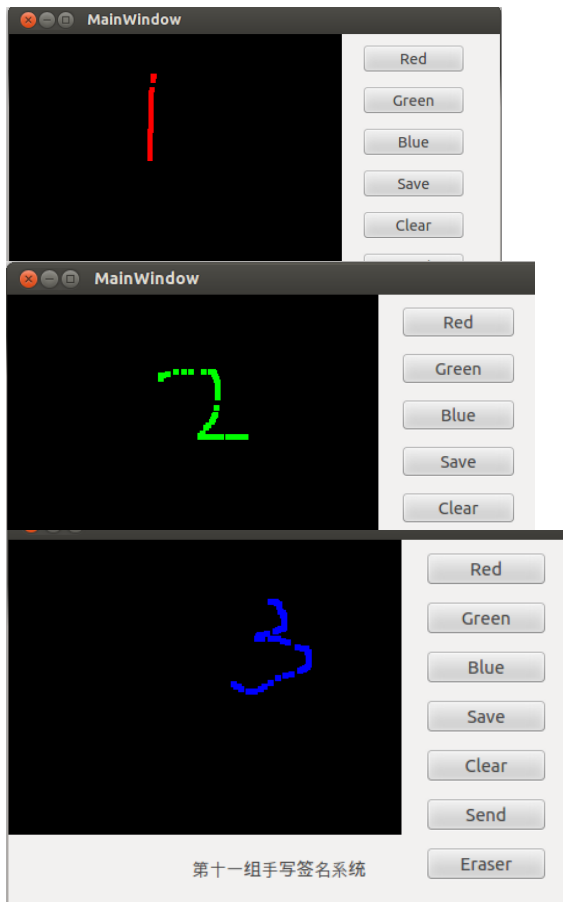
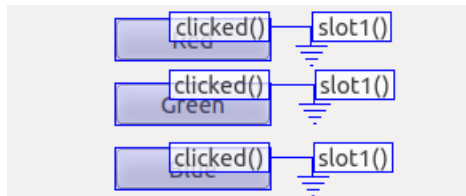
组员分工

画笔颜色按钮实现代码：

```
void MainWindow::slot1()
{

    QPushButton *button = (QPushButton *)sender();
    QString s = button->text();

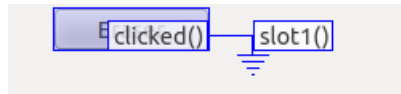
    if(s.compare("Red")==0)
    {
        pen.setColor(Qt::red);
        pen.setWidth(5);
    }
    if(s.compare("Green")==0)
    {
        pen.setColor(Qt::green);
        pen.setWidth(5);
    }
    if(s.compare("Blue")==0)
    {
        pen.setColor(Qt::blue);
        pen.setWidth(5);
    }
}
```





组员分工

橡皮擦的实现：



```
if(s.compare("Eraser")==0)
{
    pen.setColor(Qt::black);
    pen.setWidth(25);
}
```

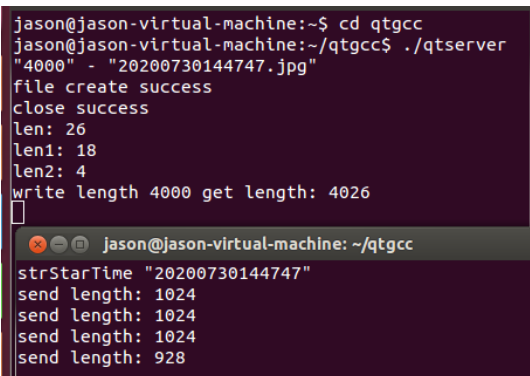




组员分工

保存、清除、发送、橡皮擦按钮实现代码：

```
if(s.compare("Save")==0)
{
    QDateTime time=QDateTime::currentDateTime();
    strStarTime = time.toString("yyyyMMddhhmmss");
    qDebug()<<"strStarTime"<<strStarTime;
    QString filepath = "/opt/qt/";
    name = filepath+strStarTime;
    imgpix.save(name+".jpg");
}
if(s.compare("Clear")==0)
{
    imgpix.fill(Qt::black);
    ui->label->setPixmap(imgpix);
}
if(s.compare("Send")==0)
{
    sendfile();
}
if(s.compare("Eraser")==0)
{
    pen.setColor(Qt::black);
    pen.setWidth(25);
}
```





组员分工

发送实现代码：

```
void MainWindow::sendfile()
{
    pname = name+".jpg";

    int fd = open(pname.toStdString().c_str(),O_RDONLY);

    struct stat filesata;

    stat(pname.toStdString().c_str(),&filesata);
    int filesize = filesata.st_size;

    QString sfilesize;
    sfilesize.setNum(filesize);

    QString fileinfo = "f:"+sfilesize;
    fileinfo =fileinfo+":";
    fileinfo = fileinfo+strStarTime+".jpg";
    fileinfo = fileinfo+":";

    //send file info
    socket->write(fileinfo.toLatin1());
    ::close(fd);

    file = new QFile(pname.toStdString().c_str());
    if (!file->open(QIODevice::ReadOnly))
        return;

    while (!file->atEnd()) {
        QByteArray line = file->read(1024);
        QString s(line);
        usleep(100000);
        qDebug() <<"send length:"<< line.length();
        socket->write(line);
    }

    file->close();
}
```

```
send length: 1024
send length: 1024
send length: 1024
send length: 928
```

一个小问题：

```
on 4096 7月 29 18:01 ..
on 2953 7月 29 23:40 20200729234038.jpg
on 182 7月 28 10:29 main.cpp
on 3757 7月 29 23:32 mainwindow.cpp
on 1030 7月 29 23:00 mainwindow.h
on 5102 7月 29 17:17 mainwindow.ui
on 2946 7月 29 23:40 n_20200729234038.jpg
on 319 7月 29 10:04 qtpaint.pro
```

```
new QFile(pname.toStdString().c_str());
file->open(QIODevice::ReadOnly | QIODevice::Text);
turn;
```

QIODevice::Text

当读取时，行结尾终止符会转换为'\n'；当写入时，行结尾终止符会被转换为本地编码，例如在win32上时"\r\n"



组员分工

服务器接收部分代码：

```
void MainWindow::readData()
{
    QTcpSocket *client = (QTcpSocket *)sender();

    QByteArray data = client->readAll();

    QString str(data);

    ui->textEdit->append(str);

    QStringList ls = str.split(":");
    filesize = ls[1];
    filename = ls[2];
    qDebug()<<filesize<<"-"<<filename;

    temp = "/opt/qt/n_"+filename;

    filefd = open(temp.toStdString().c_str(),O_CREAT | O_RDWR,0777);
    if(filefd>0)
    {
        qDebug()<<"file create success";
    }
}
```

```
"5413" - "20200731101023.jpg"
file create success
len: 26
len1: 18
len2: 4
write length 5413 get length: 5413
over |
```

```
int glength=0;
QString chang = filename+filesize;
int len =chang.length()+4;
int len1 = filename.length();
int len2 = filesize.length();
qDebug()<<"len:"<<len;
qDebug()<<"len1:"<<len1;
qDebug()<<"len2:"<<len2;
```

```
data.remove(0,len);
```

```
glength += data.length();
```

```
write(filefd,data,data.length());
```

```
qDebug() << "write length" << data.length() << "all:" << glength;
```

```
::close(filefd);
```

```
qDebug()<<"over";
```



THANK YOU

感谢聆听，批评指导