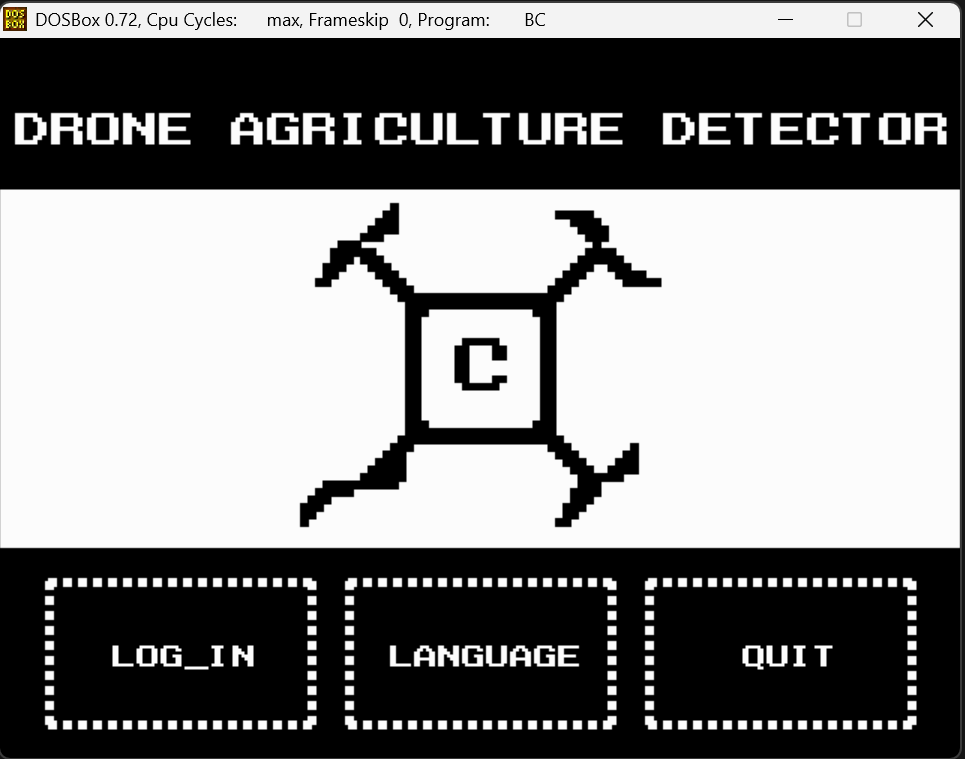
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**C语言课程设计**

**农田无人机喷洒农药模拟系统**

**课程设计终期报告**

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**专业班级：自动化2406班**

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**一.前言：**

**1.选题介绍：农田无人机喷洒农药模拟系统**

主要功能说明：利用无人机进行农作物生长监测，针对不同病害进行农药配制，对农药喷洒路径进行规划，模拟无人机喷洒过程等功能。

**2.编写背景：**

在当下科技的逐步发展，人们已经不满足于先前的机械化农业，即使用各种机械化设备配合人力进行工作，这样并没有真正的解放劳动力，再加上农村的人员外流，以及当下人们的愿景逐渐趋于可以采取一种完全解放劳动力的种植方式，这推动了自动化行业的发展，将自动化技术和智能技术应用于种植当中，可以智能监测农田的生长情况，并且针对不同的病害进行处理，同时它可以克服地形和气候对人的影响，大大提高劳作的灵活程度，从而提高产量。但并非所有农民都明白如何去对无人机进行喷洒规划，也不明白怎样的飞行是效率最高，工作时间最短，得到的产率最大

基于这些问题，编者编写了这个农田无人机喷洒农药模拟系统，旨在帮助更多的农民用户在图形化的界面了解自己农田可能出现的问题，了解如何对虫害进行更快处理，从而提高产量。我们欢迎所有希望采用全自动技术进行劳作的劳动者们，希望通过此项技术可以模拟出真实环境下无人机喷洒的实际演示，来让劳动者们得到更高效的生产方式，便宜自身。

**3.编写目的：**

通过“无人机喷洒农药模拟系统”，我们可以通过图形化的页面让用户自由绘制自己的农田，或者将农田分块进行处理，来达到更加灵活的规划，在此同时我们支持不同的无人机型号，也具备各种灵活的规划，针对这一项目，我们编写了这项报告，希望 从项目概述，功能分析，代码实现以及一些核心算法解释这些方面来进行解答，旨在让用户通过阅读本篇报告来了解整个项目的原理和尽快熟练使用整个程序。

**4.参考资料：**

1.周纯杰，何顶新等. 程序设计教程—用C/C++语言编程. 北京: 机械工业出版社, 2016

2. 王士元. C高级实用程序设计. 北京: 清华大学出版社. 1996

**二.任务概述：**

1.需求分析：

用户可以进入一个农田数据管理的界面，产生像素风格界面的沉浸感。

用户可以在简易图形的引导与安排下，在拟合现实的情况下（时间流动等），自行安排对农田状态和无人机飞控的部署规划（如在哪块地种什么，在模拟时获得怎样的预期效果）。

用户在使用本系统时可以获得挑战性、多样性（如农田虫害的挑战，合理规划无人机性能和飞行轨迹）。

用户使用本系统时要实现对农田不同时段的模拟，如天气变化，虫害发生，飞行规划，时间推移等。

用户可以在管理农田中得到责任感、成就感、满足感，同时系统实现退出展示动画（退出致谢）。

2.可行性分析：

通过新的画图函数实现像素风格；

通过新的绘制图片，实现简单易懂的图像绘制；

通过数据记录在.dat文件中进行数据读取与写入；

通过主界面集成不同界面，实现界面跳转；

通过手动规划和自动规划两方面进行飞控模拟；

3.编写规范：

1.注释：对于代码，我们尽可能多的加入了注释，有利于使用者了解代码工作原理（不计入工作量）；

2.函数命名根据其具体功能及页面进行命名；

**三.运行环境与配置：**

**1.硬件接口：**

**处理器：Intel Pentium 166 MX 或以上。**

**硬盘：空间 500MB 以上。**

**屏幕适配器：VGA 接口。**

**系统运行内存：要求 32MB 以上。**

**2.软件接口：**

**开发软件工具：Borland C++ 3.1 For DOS**

**文字编辑工具：Visual Studio Code、Visual Studio 2022 Preview**

**数据库：记事本**

**操作系统：DOS WINDOWS 9X/ME/2000/XP/WINDOWS 7**

**3.控制**

**该系统通过鼠标与键盘实现对界面的与功能的控制。**

**1. 在欢迎页面通过点击语言模式实现切换中英文系统。通过点击退出实现退出模拟系统。点击登录进入登陆页面。**

**2. 在登录注册界面通过鼠标实现输入框、进入按键、点击注册、退出按键的控制。**

**3. 在主界面内为鼠标模式，单击退出以实现退出系统，单击返回键退回到登陆页面，单击对应按钮进入对应子界面。**

**4. 用鼠标实现对其余功能，其余按键的点击。**

**四.主要功能：**

**1. 实现注册/登录/切换语言。**

**2. 第一次进入主界面显示六个模块：退出，无人机，农田，农药，检测，日志。**

**3. 进入农田界面，点击农田，点击信封获取当前登陆账号农田信息或创造新农田，保存。回到上一级，点击画笔设置农田位置，点击水设置水源位置，点击橡皮进行擦除，保存。回到上一级，点击植物显示三种作物水稻、玉米、甘蔗，点击对应类别，单击田地对应格子进行种植。单击铲子进行删除作物。回到上一级，单击房子，在地图上点击空白土地进行设置。完成任务，退回到homepage。**

**4. 进入无人机界面，单击录入无人机输入名称，输入质量，机翼数，天气和使用时间，单击确认完成录入。单击查看无人机，可以查询到该账号下全部已经录入的无人机。**

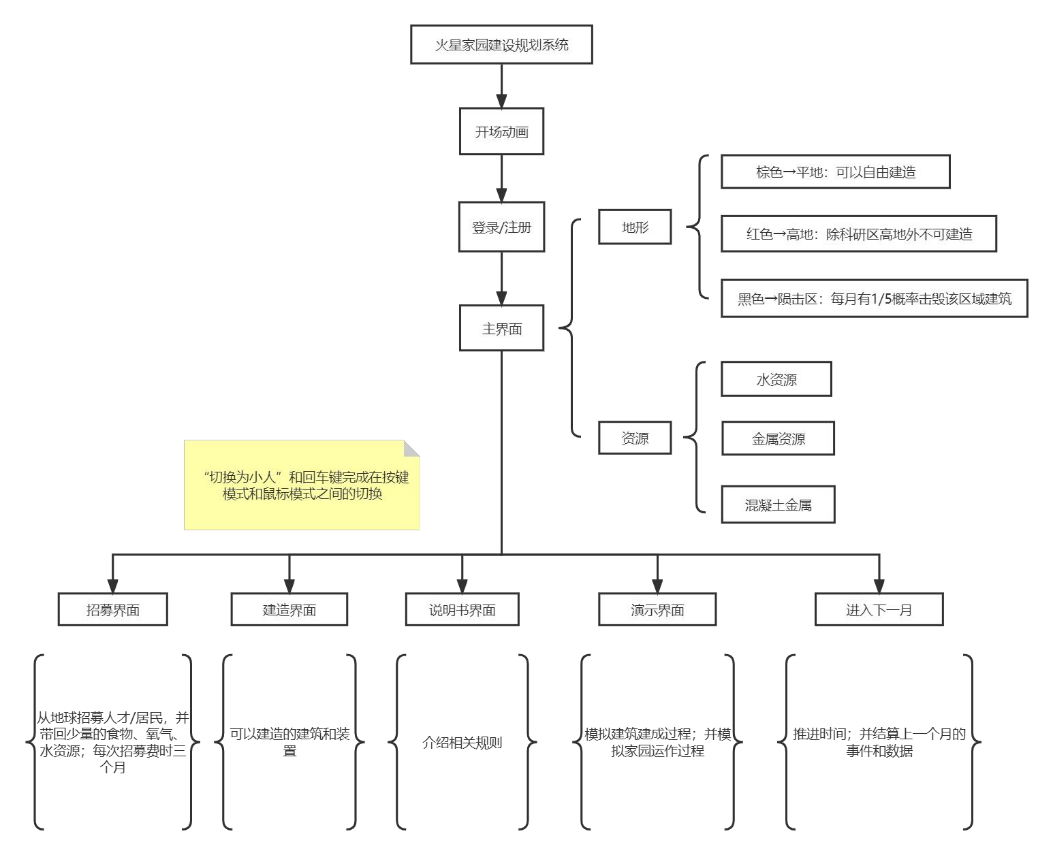
**5. 进入农药界面，单击管理农药，点击以往该账号已经录入的农药信息；回到上一级，单击名称录入新农药名称，喷洒周期和对应虫害种类。**

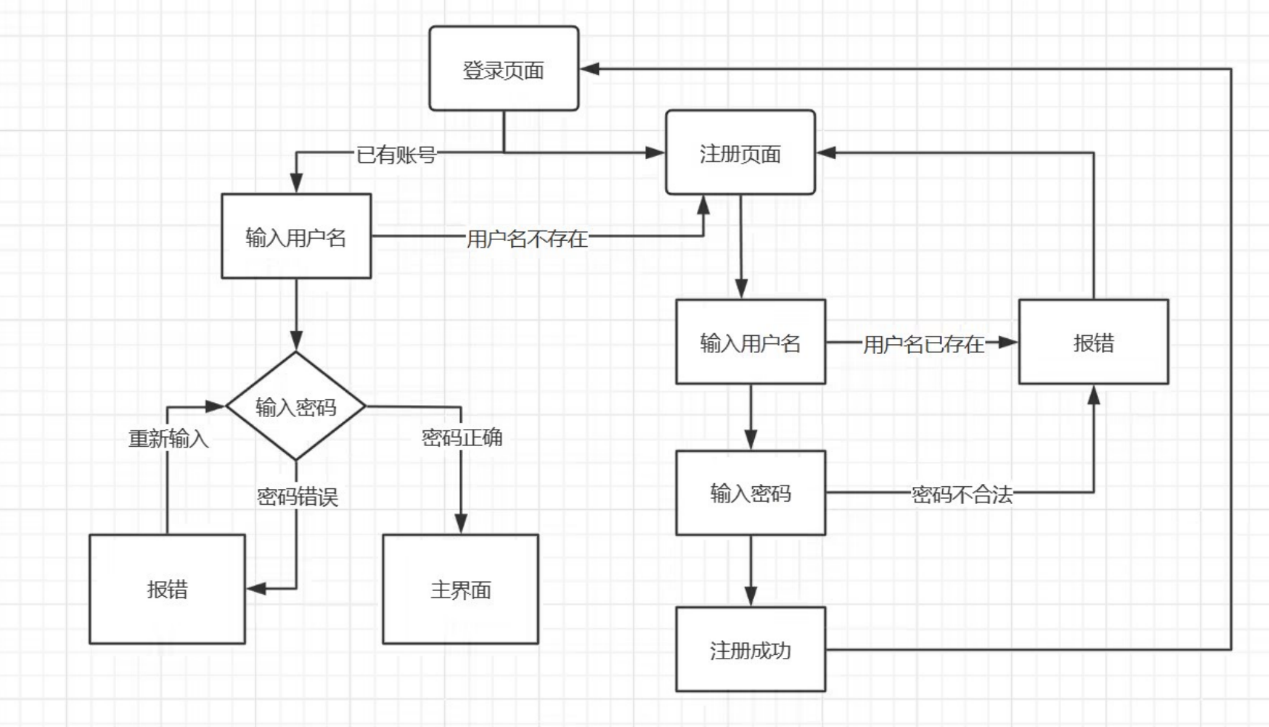
**6. 进入监测界面，选择模式（自动/手动）。右上角可自主输入对应时间天数，或者单击向上或向下三角形调整天数。自动模式下，选择无人机数量（一个/多个），选择set，输入对应房子内无人机种类，输入两种农药调配配方；双击start，开始按时间顺序进行自主喷洒农药，自动模式最大模拟天数60天。单击chart，可见田地内各种数据。手动模式下，单击route手动规划路径（不必设置返航路径），完成后单击start开始自主喷洒农药模拟。**

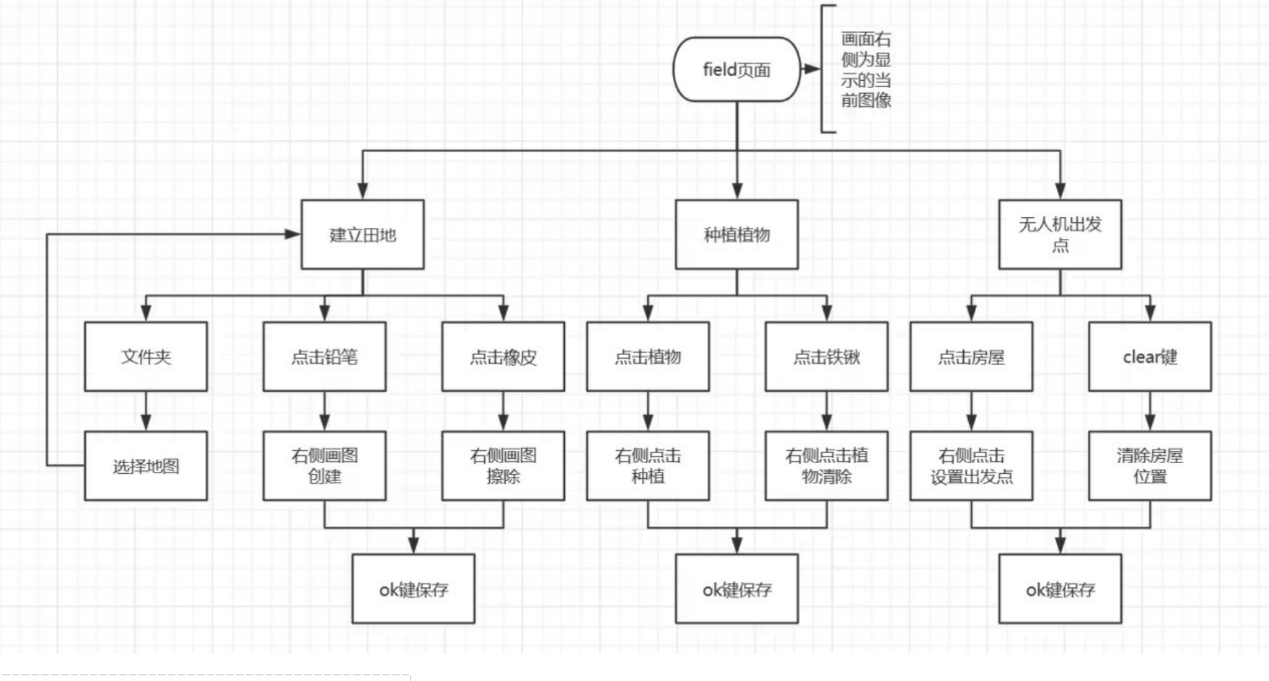
**7. 进入日志界面，选择要查看的用户名，选择要查看的类别，单击文件名，对于农田界面，可以展示农田具体设置和房子、作物信息；对于无人机，可以显示无人机名称和对应天气；对于农药，可以显示农药名。**

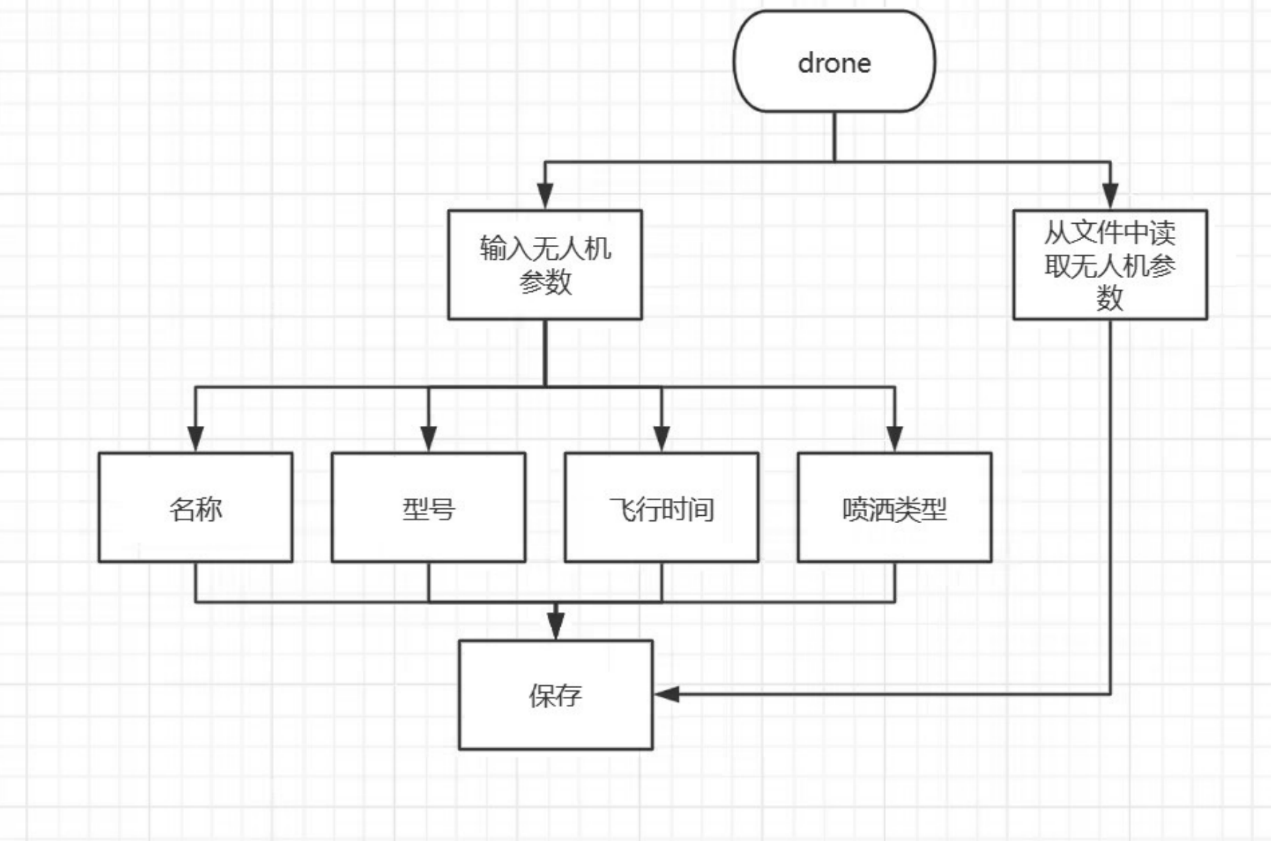
**8. 单击退出，显示退出致谢动画。**

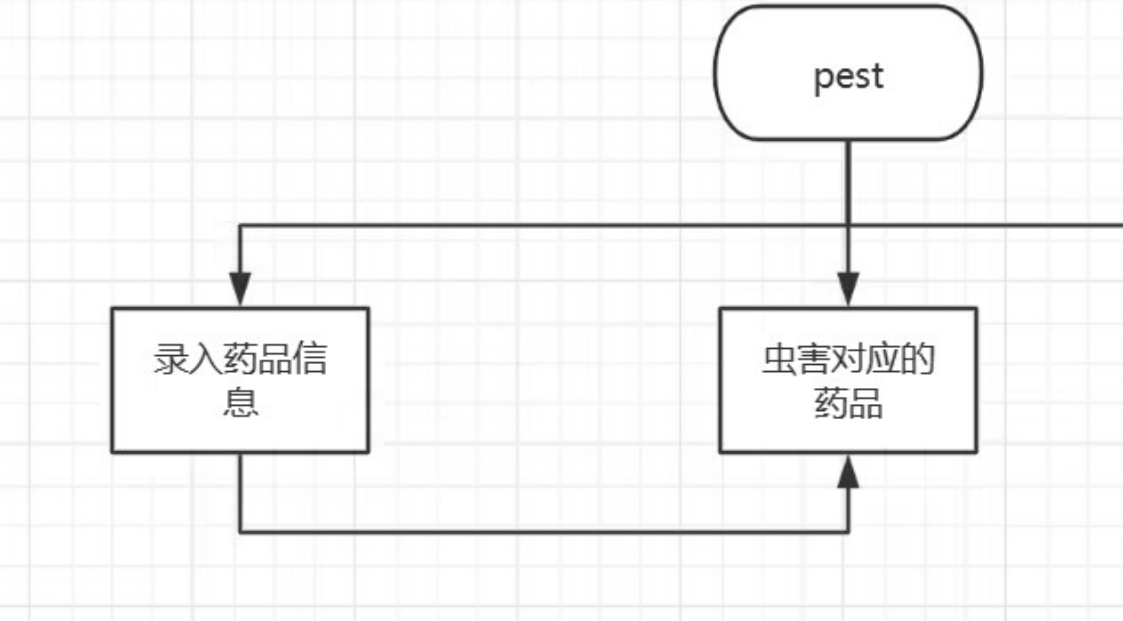
**五.程序设计：**

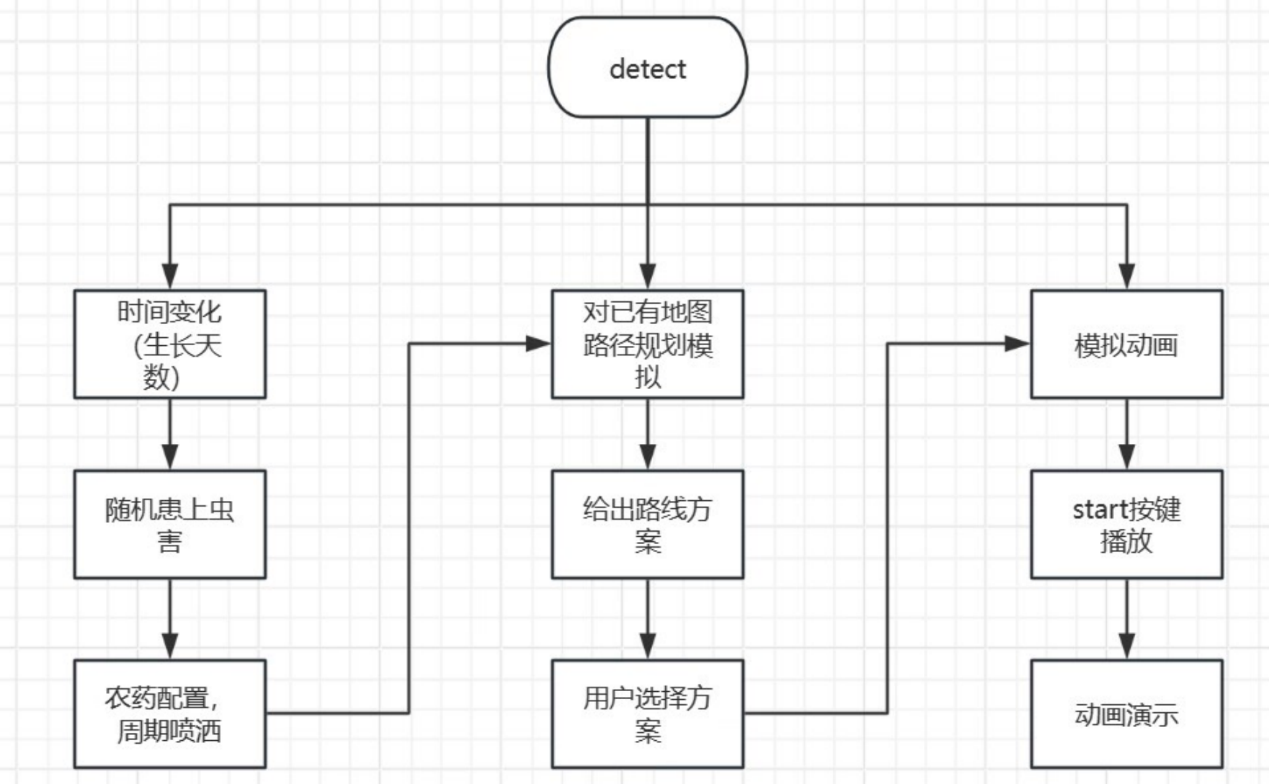
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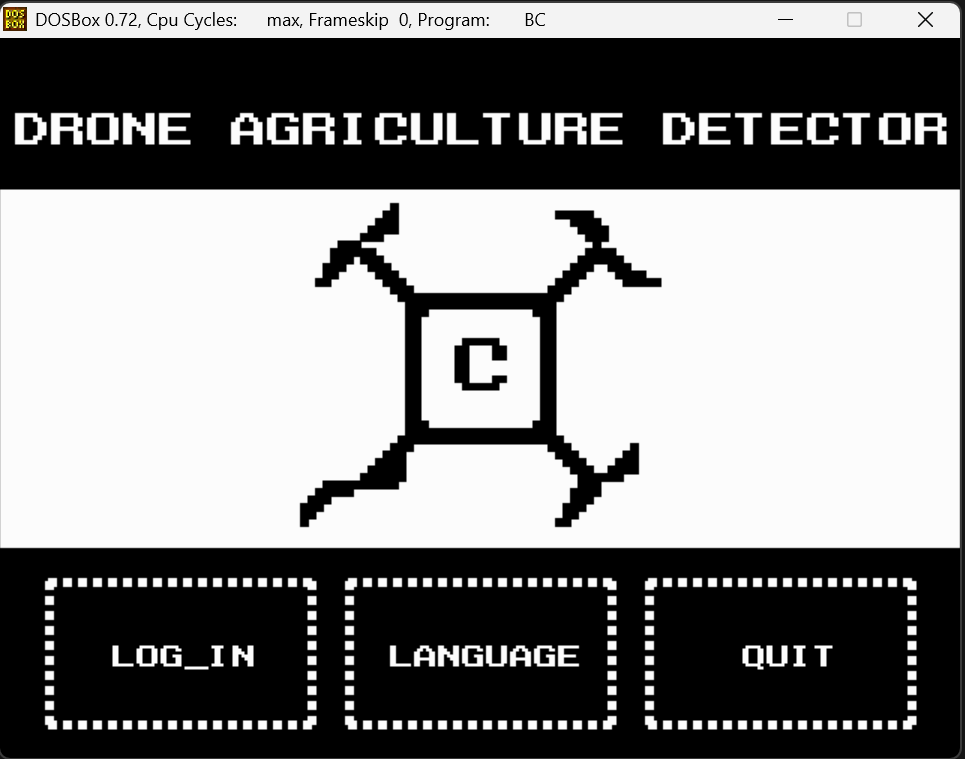
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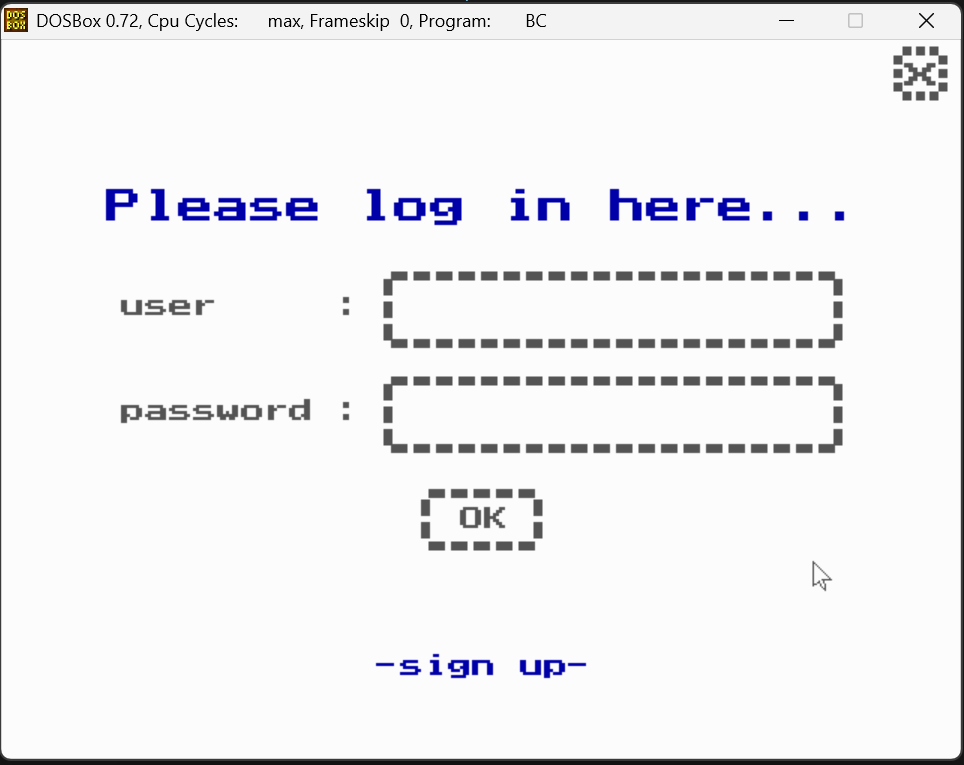
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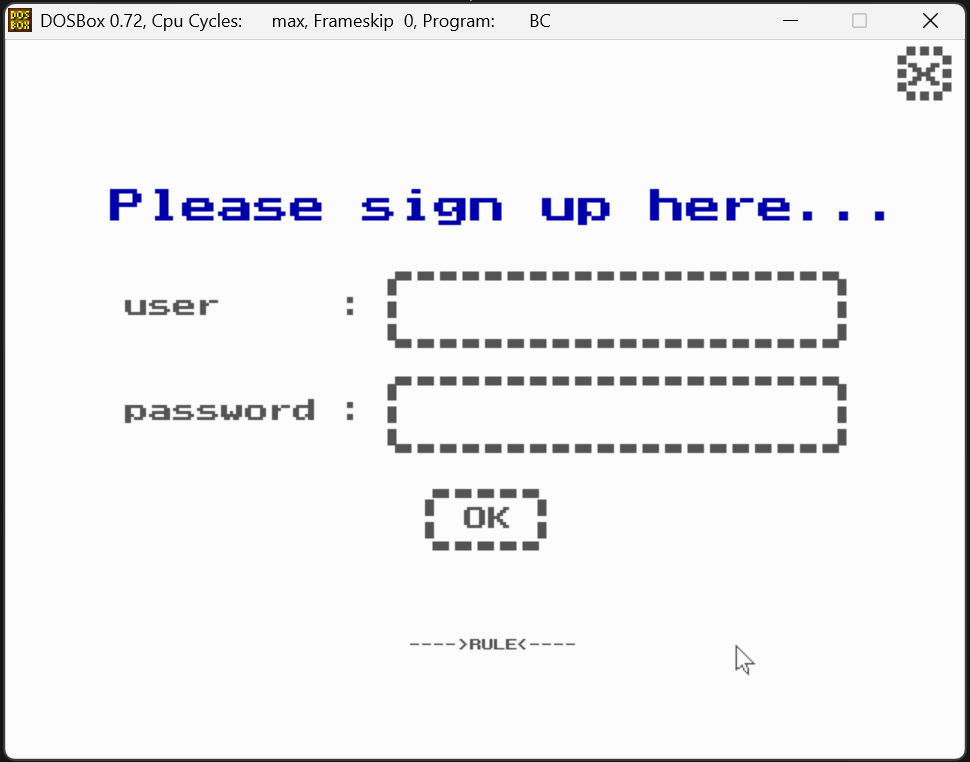
**欢迎：**

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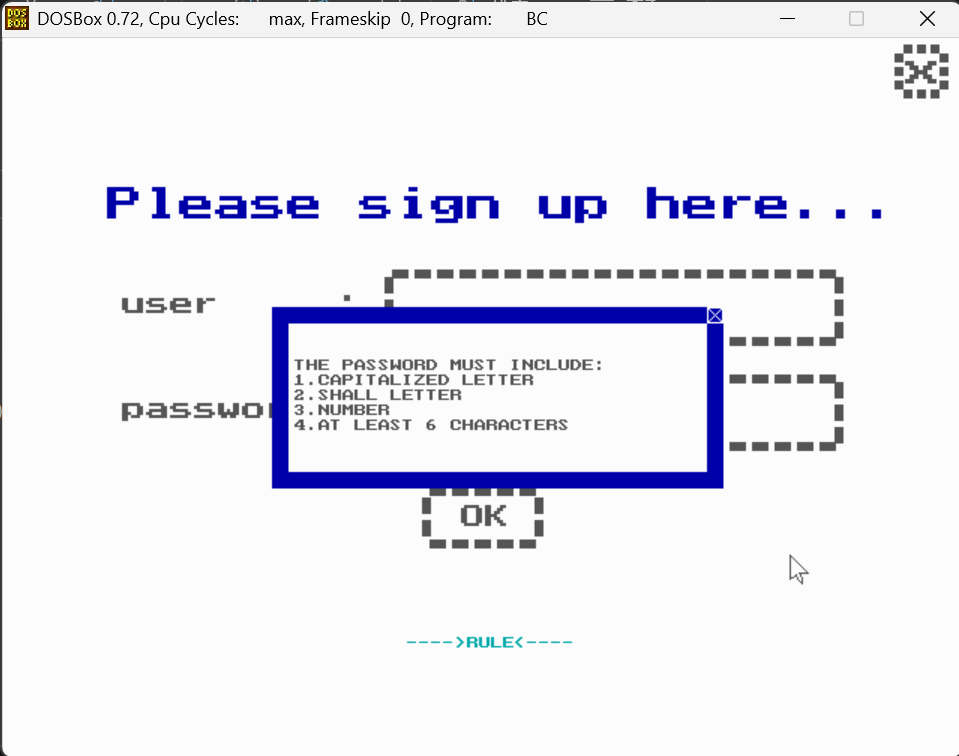
**登录：**

****

**注册：**

****

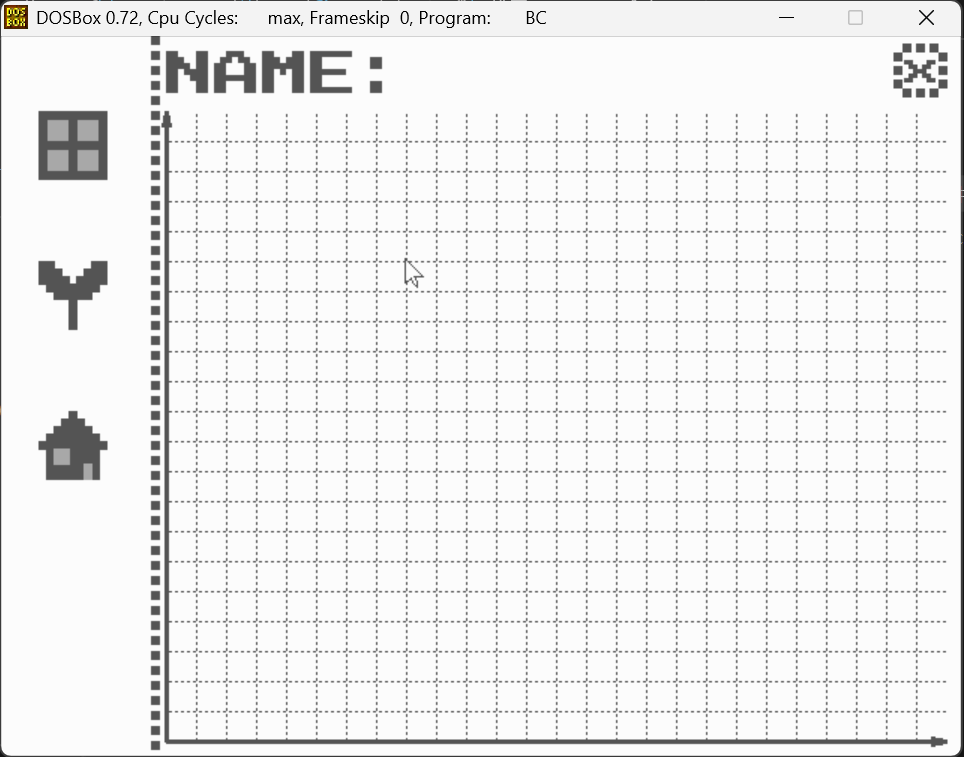
**注册规则：**

****

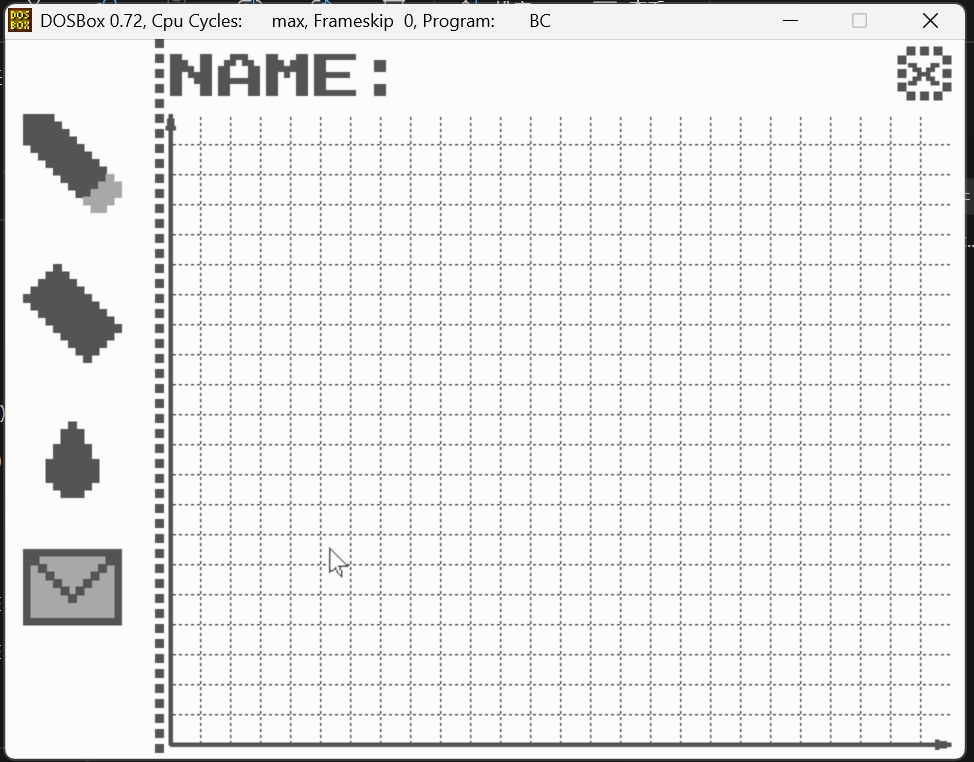
**主页：**

****

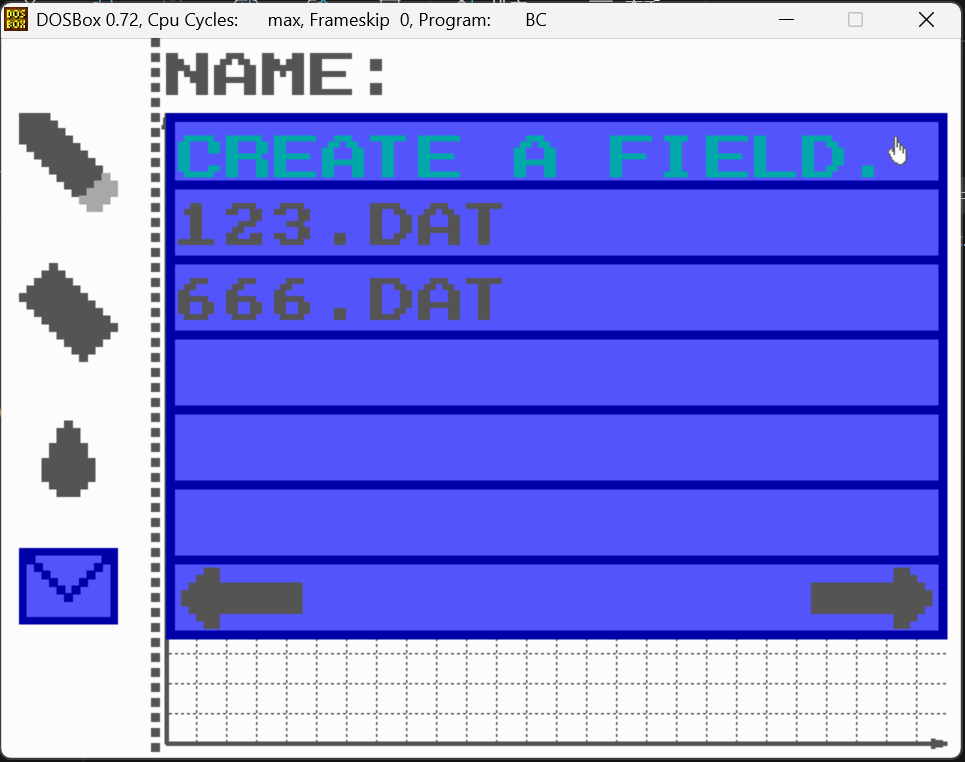
**农田主页面：**

****

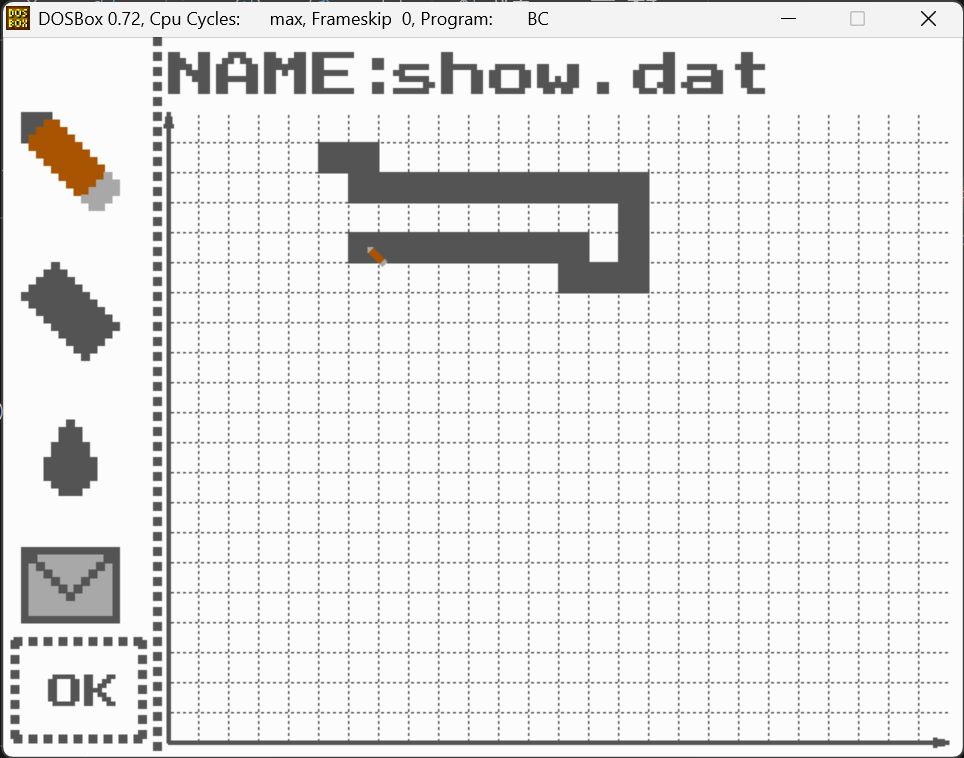
**打开农田/新农田：**

****

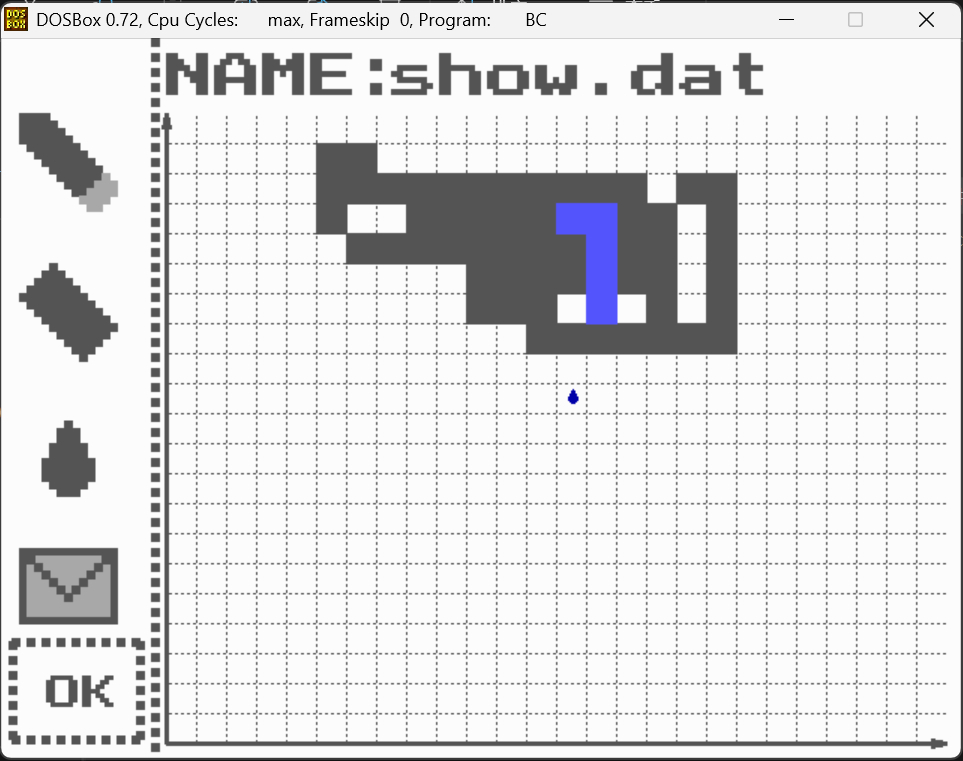
**选择文件：**

****

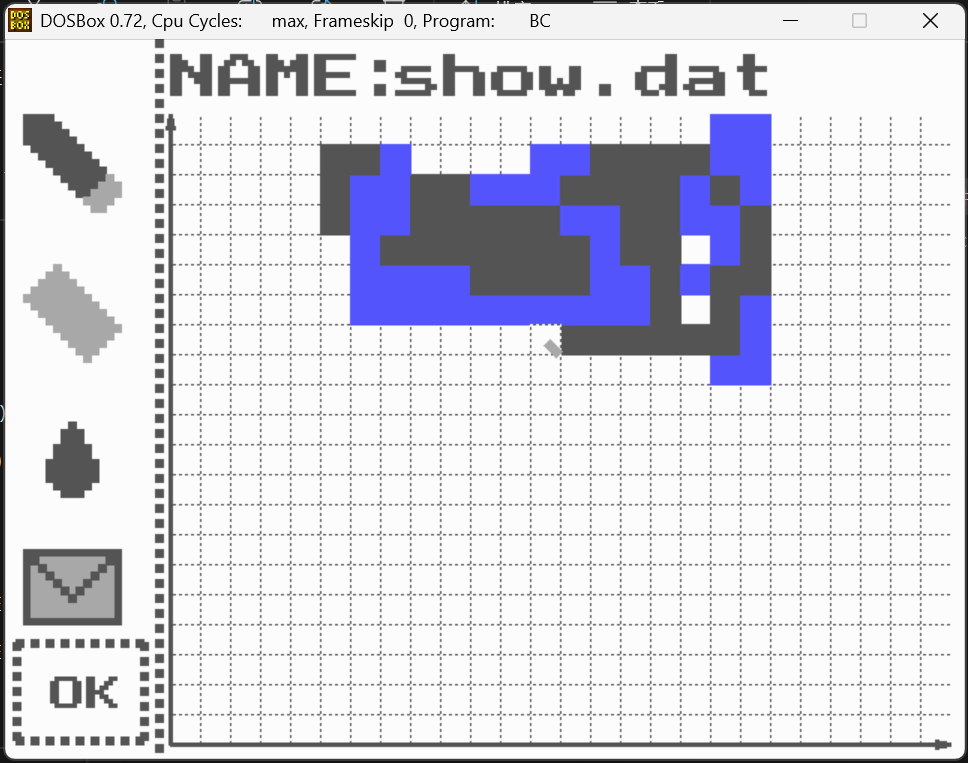
**画农田：**

****

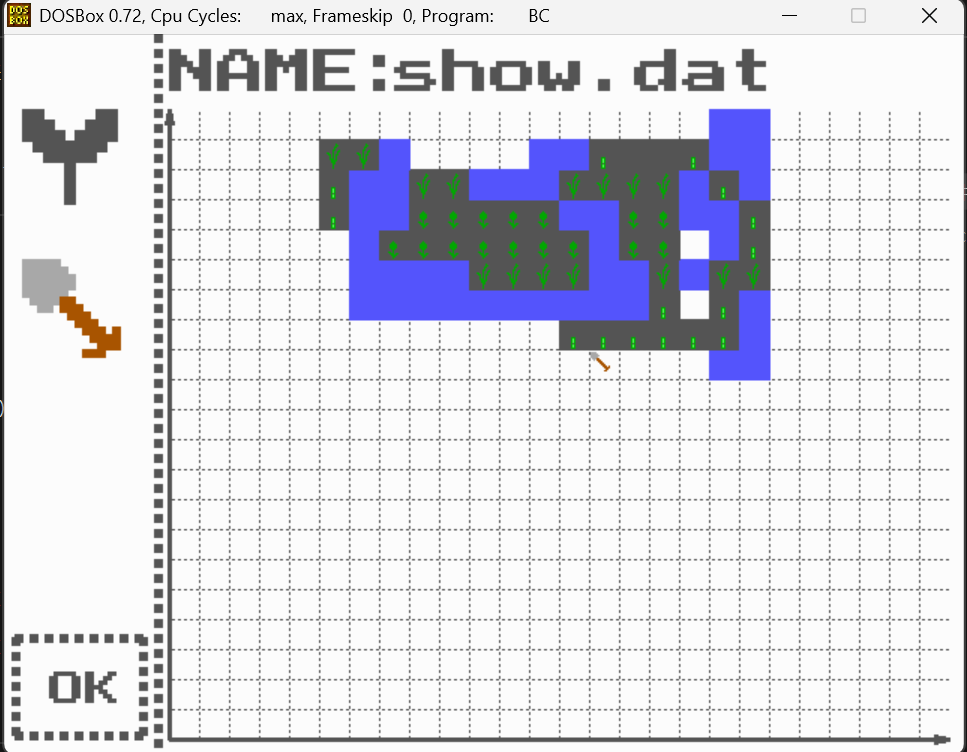
**画水源：**

****

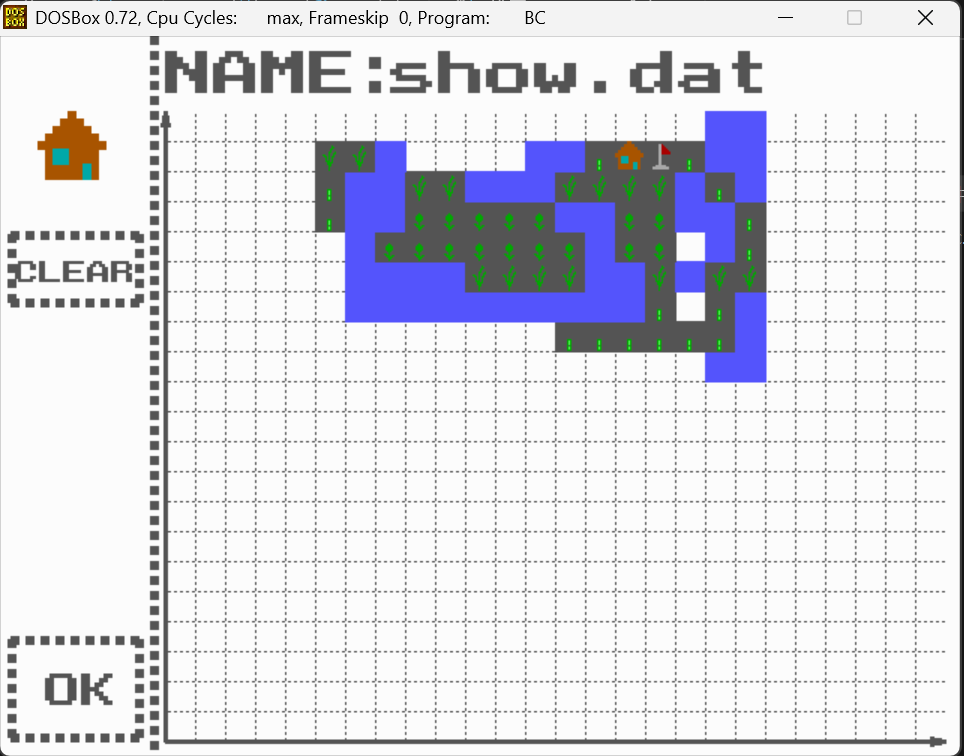
**擦除：**

****

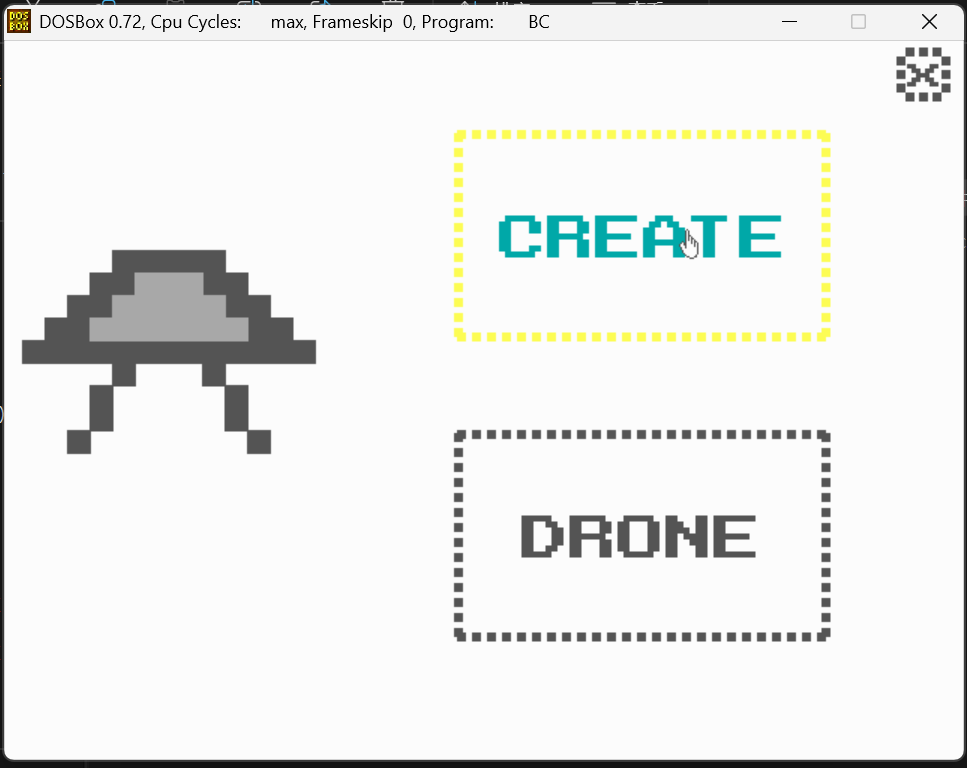
**种植物/铲除植物：**

****

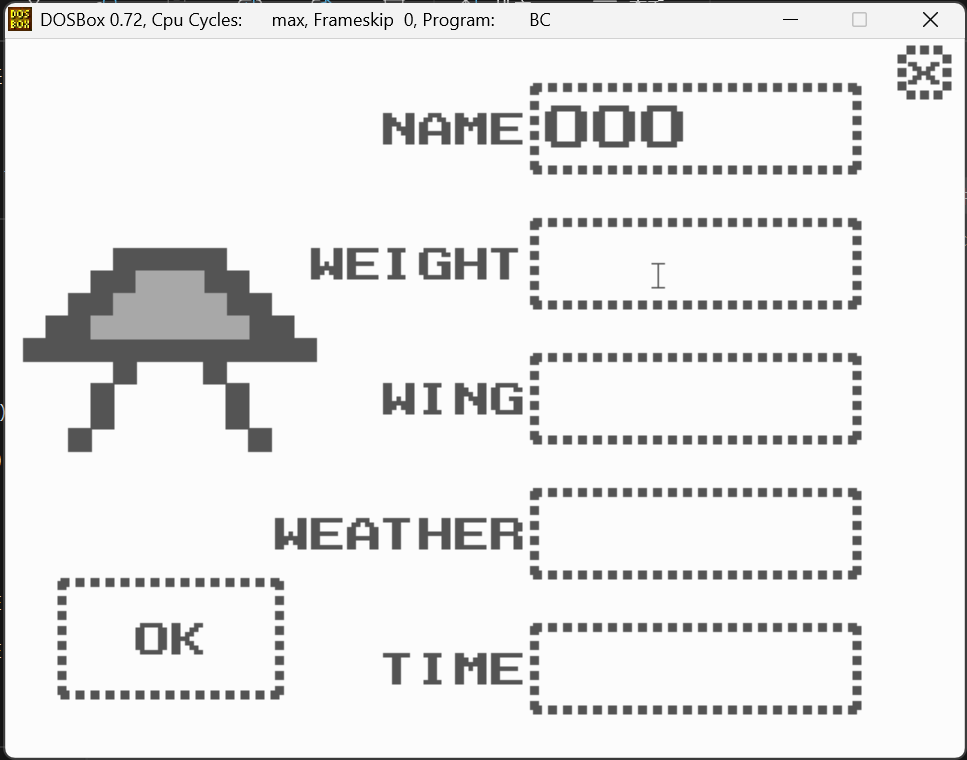
**设置无人机起飞点位置：**

****

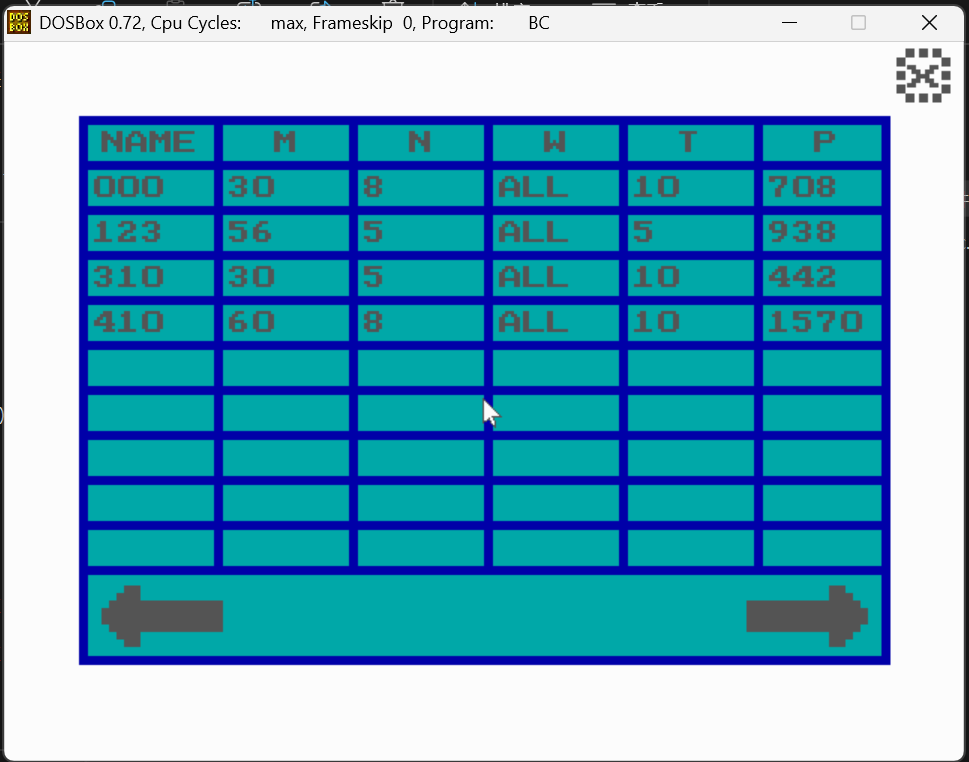
**无人机界面：**

****

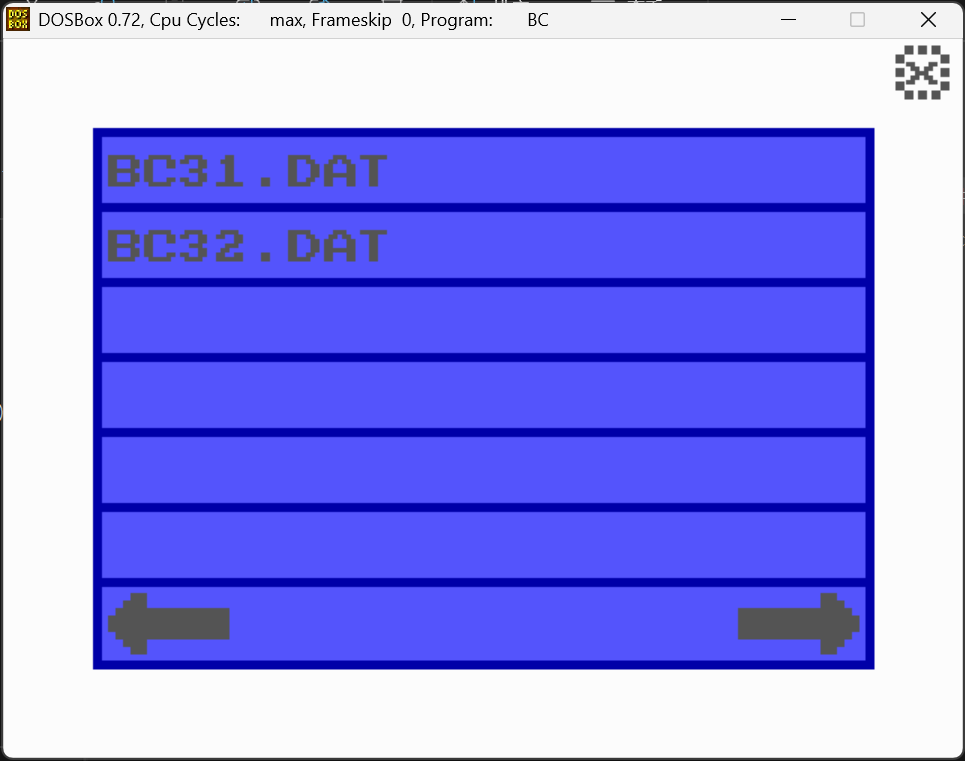
**录入无人机：**

****

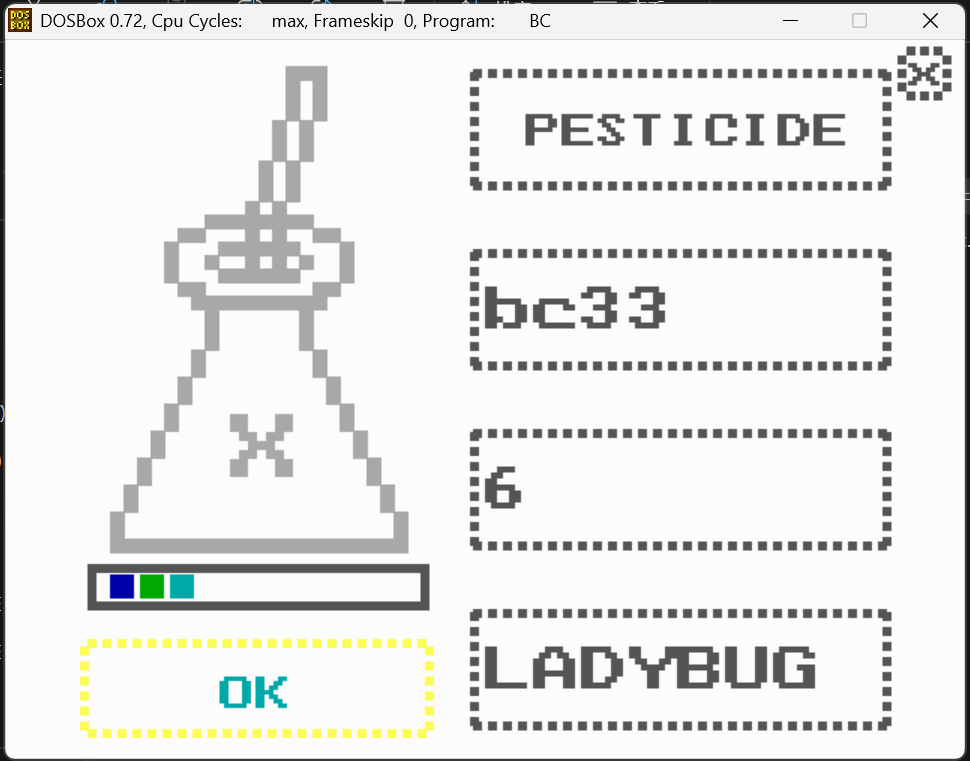
**查看已有无人机信息：**

****

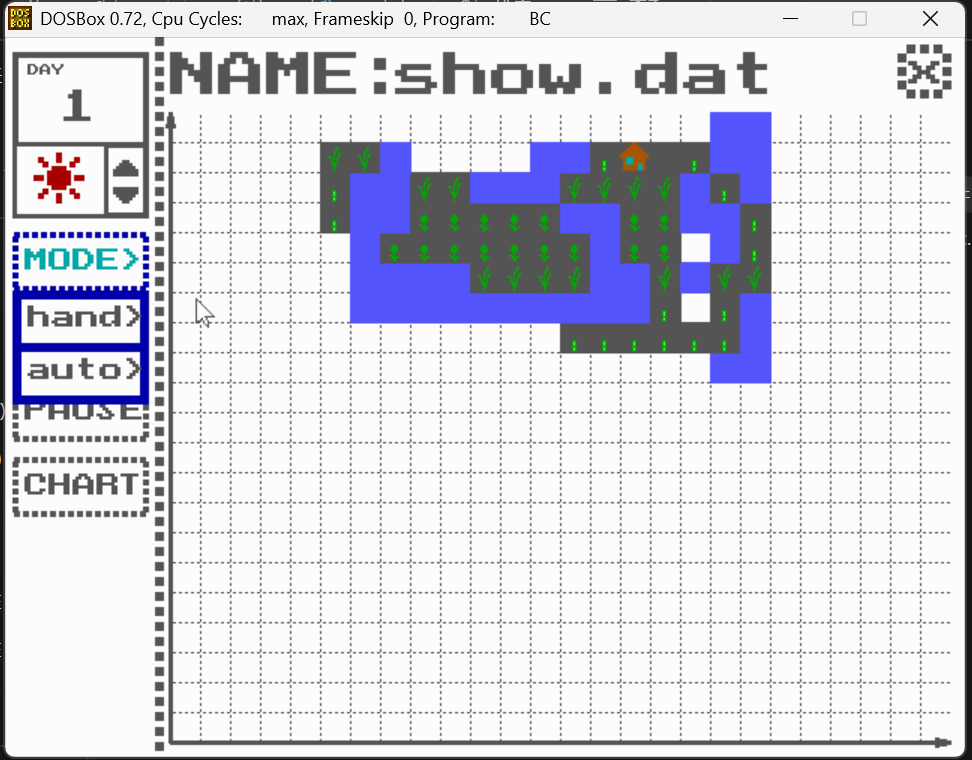
**管理已有农药：**

****

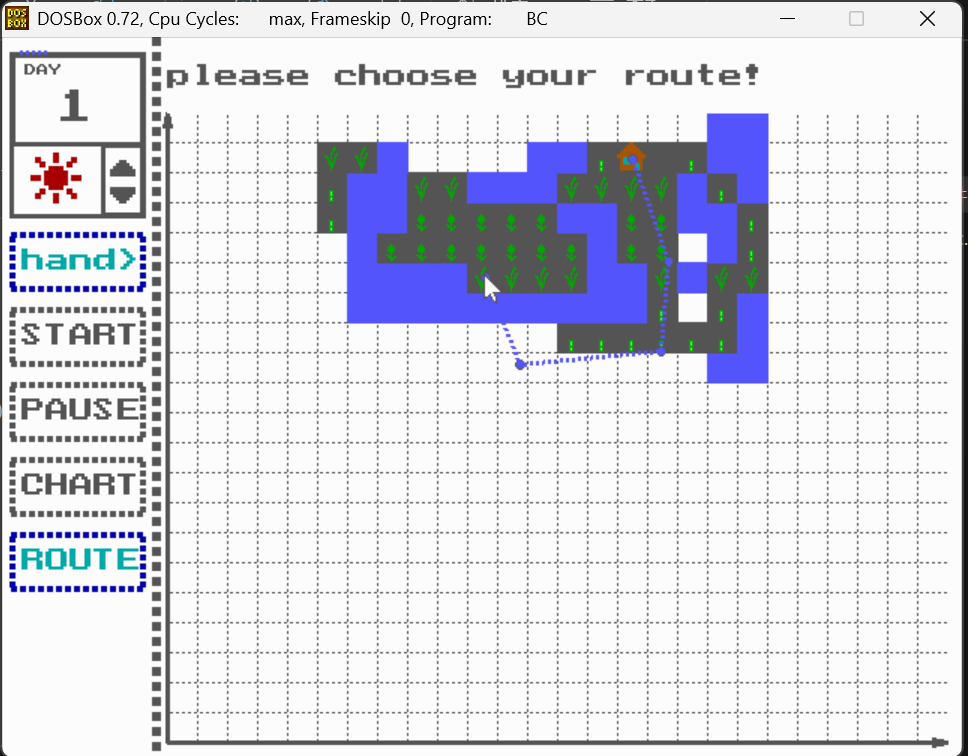
**配置新农药：**

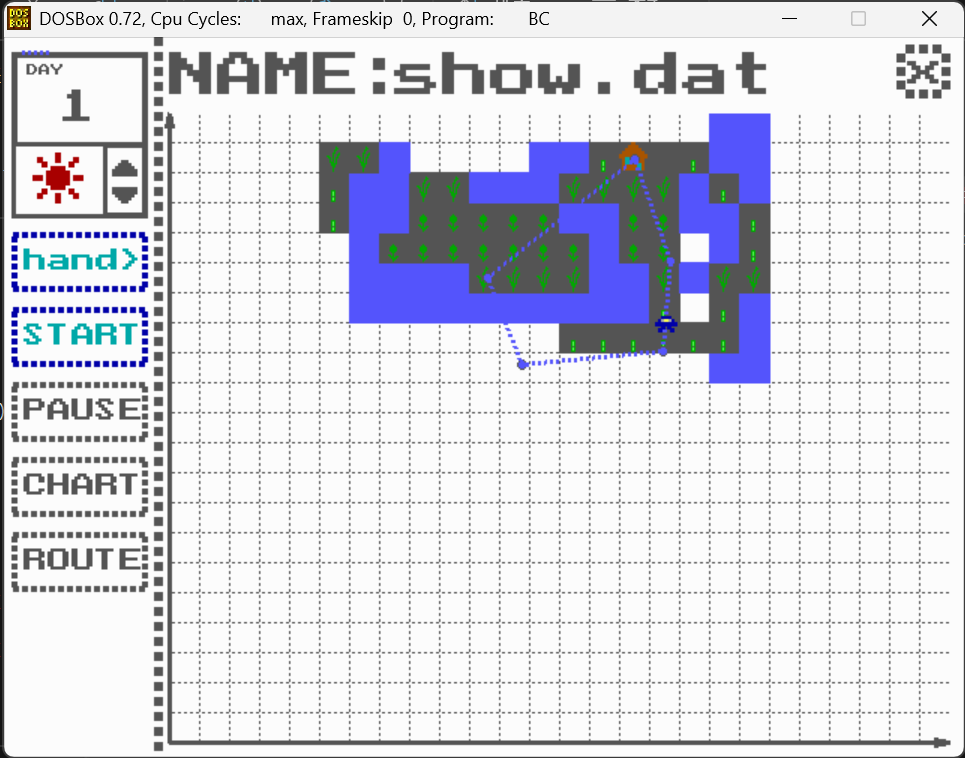
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**监测：**

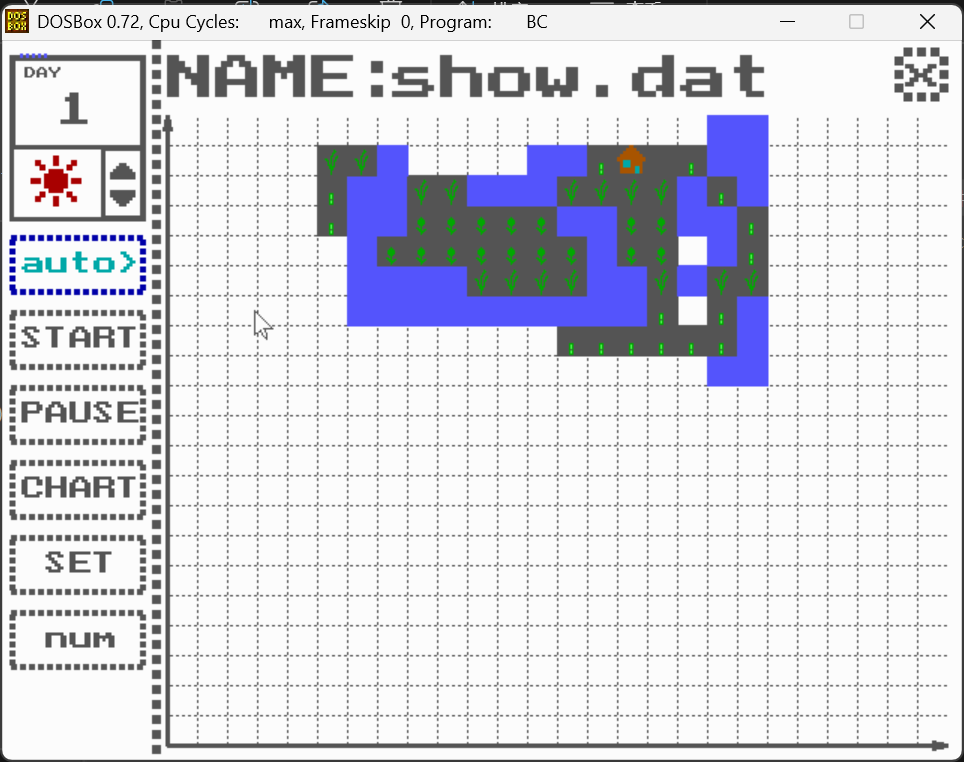
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**手动规划线路：**

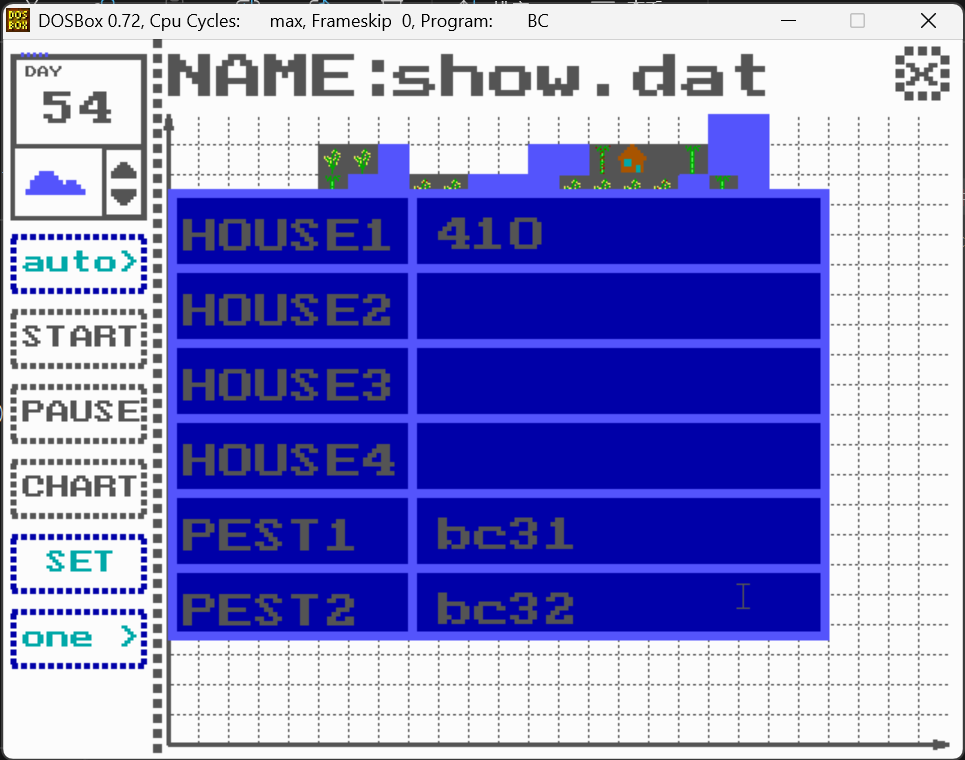
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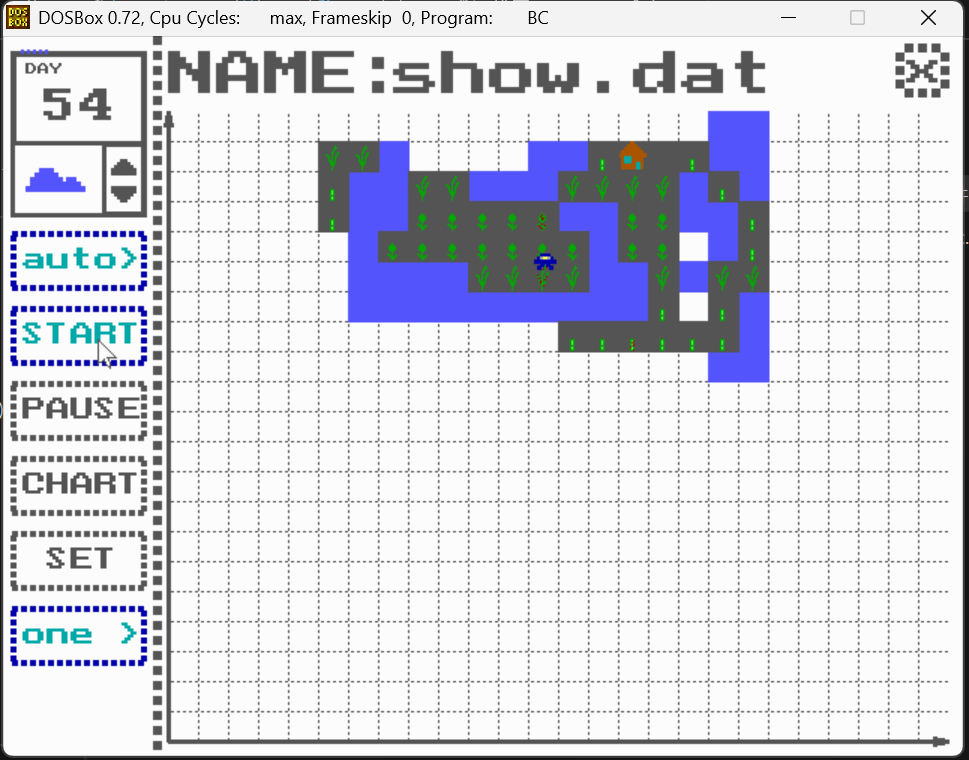
**自动模式：**

****

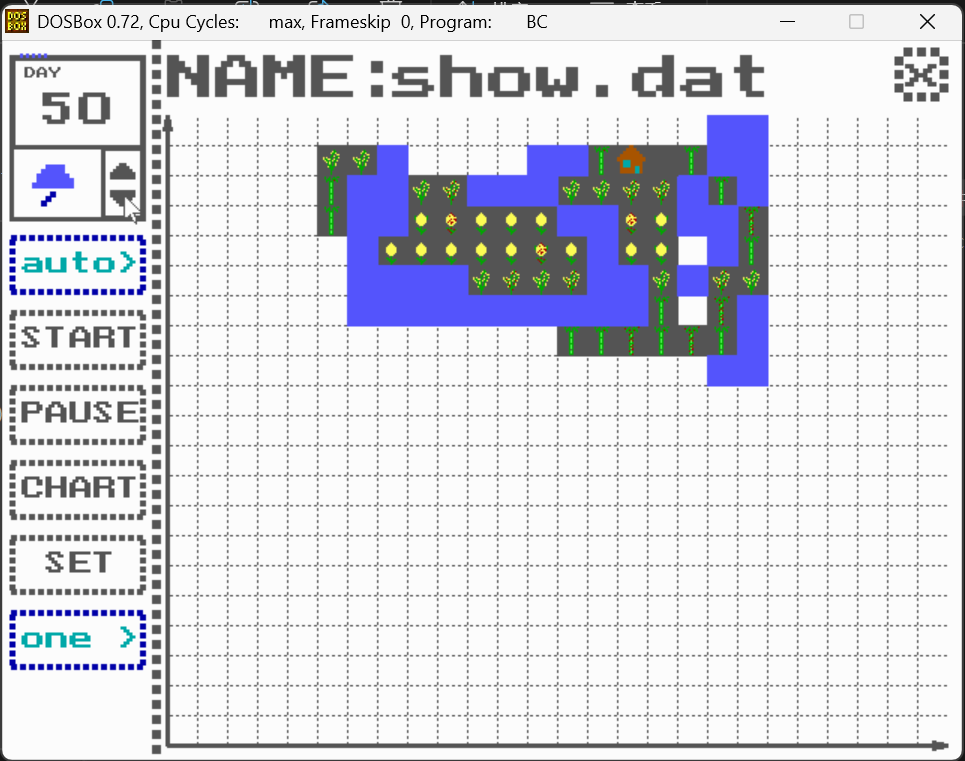
**配置无人机：**

****

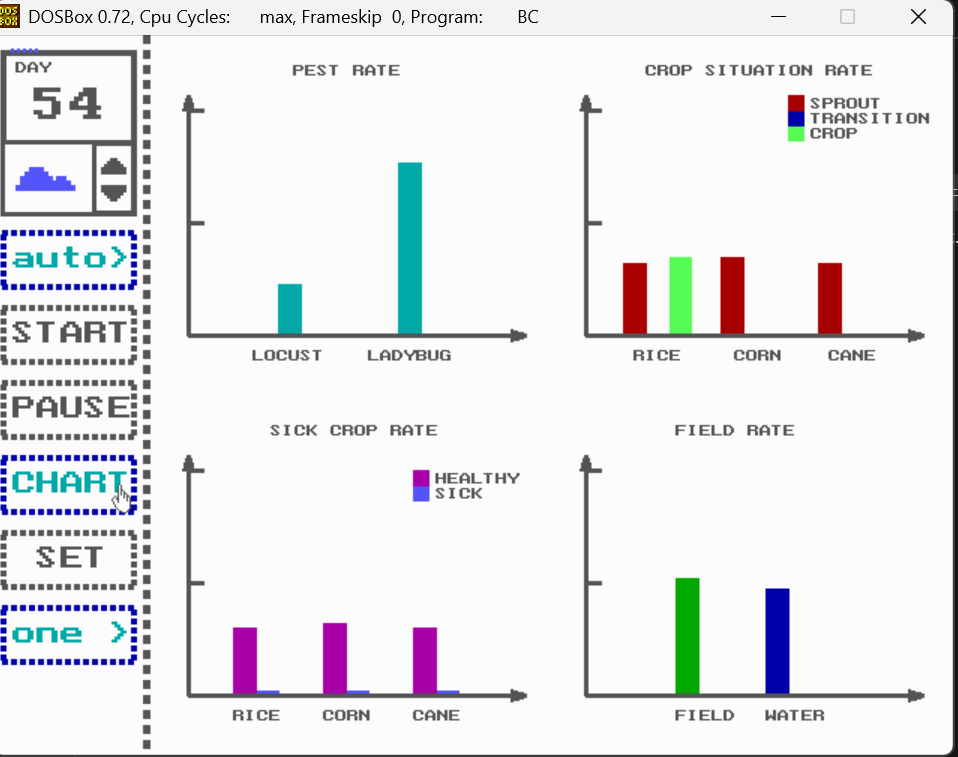
**开始自主飞行：**

****

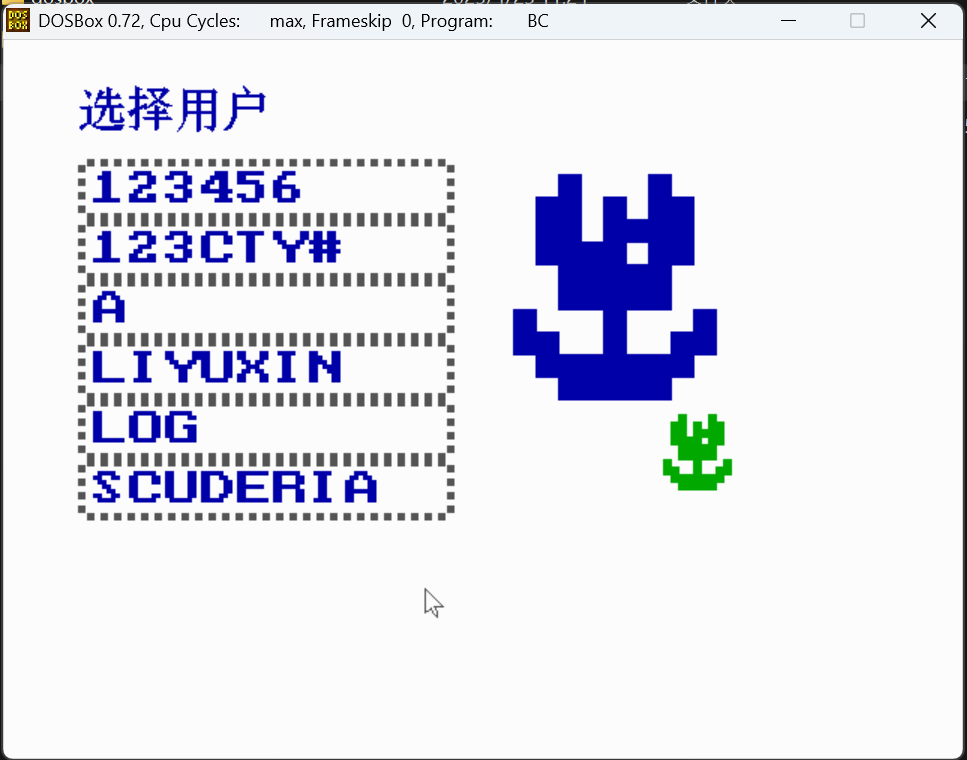
**时间调节：**

****

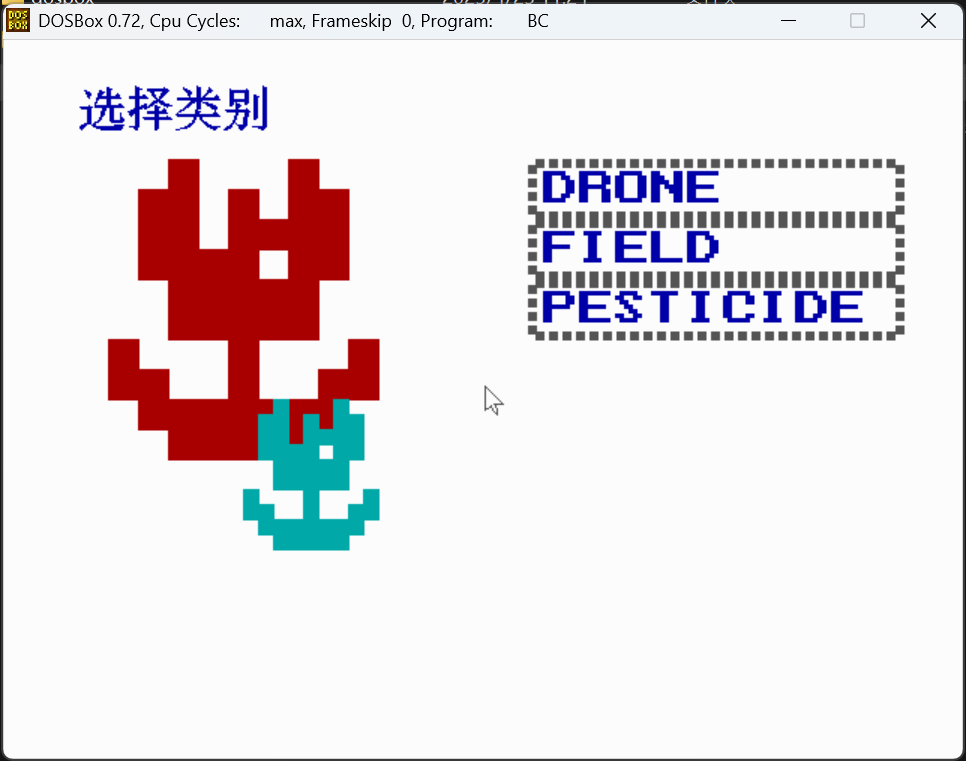
**数据分析：**

****

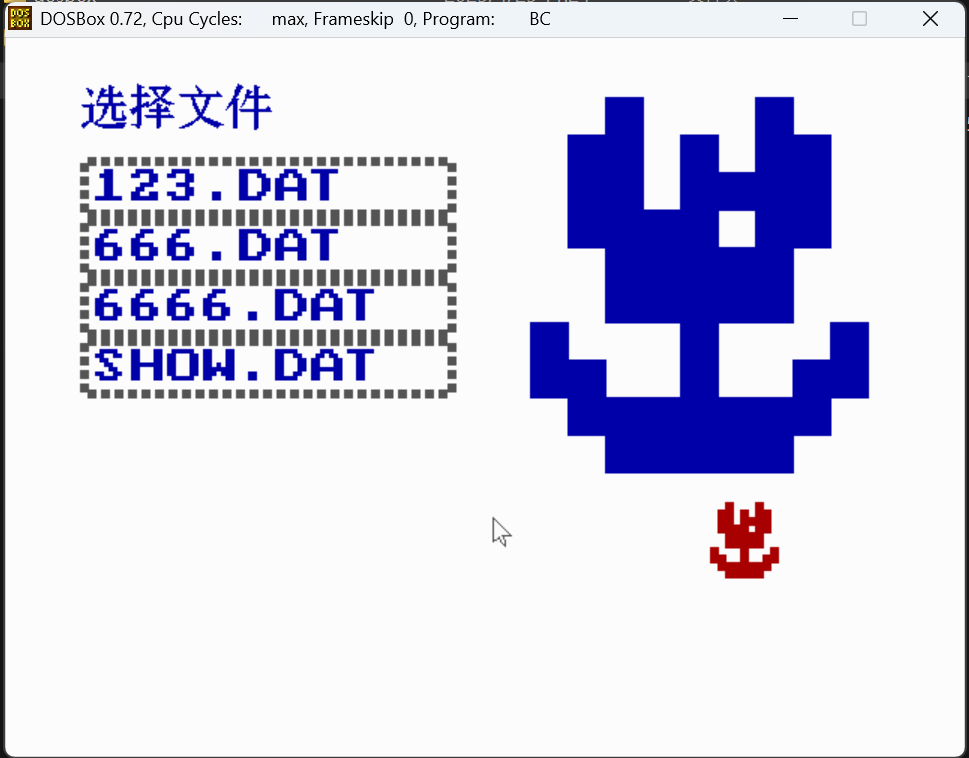
**日志：**

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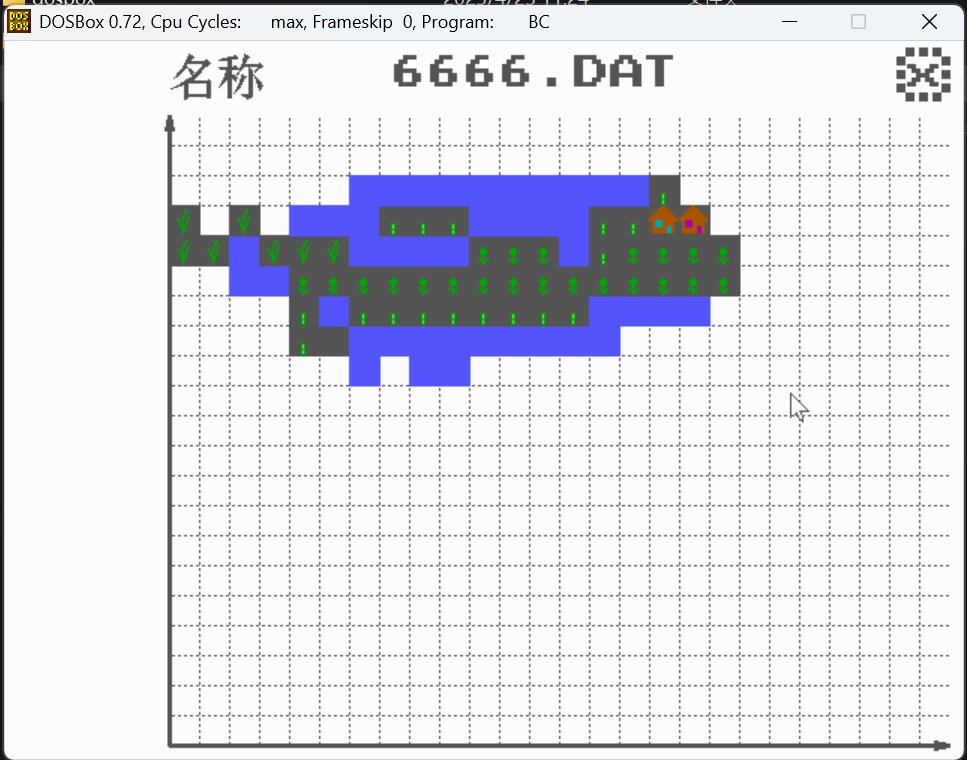
**选择类别：**

****

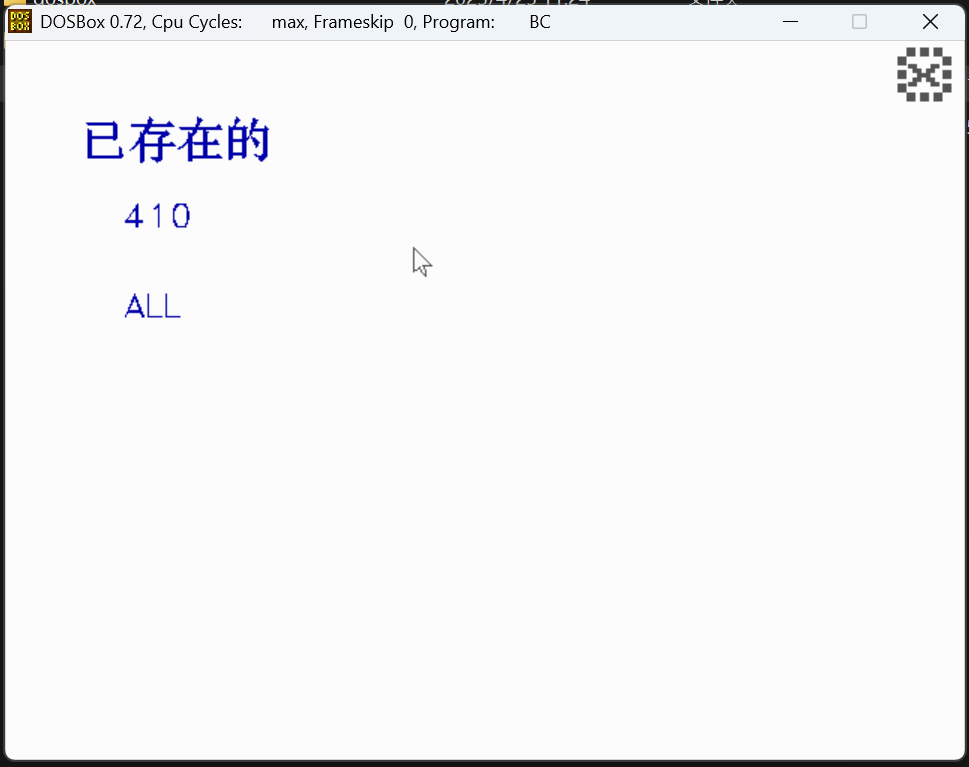
**选择文件：**

****

**展示田地文件内容：**

****

**展示无人机信息：**

****

**六.源码及有关文件(按首字母排序)：**

**1.include<.h>**

**/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/**

**/\*\*\*\*\*detect.h\*\*\*\*/**

**#ifndef \_DETECT\_H\_**

**#define \_DETECT\_H\_**

**#include "detectf.h"**

**#include "public.h"**

**void put\_calender(void);**

**void put\_calender\_number(char \*date);**

**void put\_calender\_weather(char weather[10]);**

**void automode\_button(int flag);**

**void set\_button(int flag);**

**void pause\_button(int flag);**

**void mode\_button(int flag);**

**void chart\_button(int flag);**

**void route\_button(int flag);**

**void start\_button(int flag);**

**void detect\_screen(int record[21][26] , char \*nowfield ,int language);**

**int detect\_page(char \*username,char \*nowfield,int language);**

**void auto\_simulate(int record[21][26], char \*date\_char ,char \*username , char \*nowfield , int automode ,struct droneinfo dronerecord[5],struct pesticideinfo pestrecord[3]);**

**void show\_chart(int record[21][26],char\* now\_field);**

**#endif**

**/\*\*\*\*\*\*detectf.h\*\*\*\*\*\*/**

**#ifndef \_DETECTFUNC\_H\_**

**#define \_DETECTFUNC\_H\_**

**#include "public.h"**

**#include "detect.h"**

**void change\_weather(char \*weather);**

**void recover\_field(int record[21][26],char \*username , char \*nowfield );**

**void grow(int record[21][26] , int date );**

**void grow\_oneday(int record[21][26] ,int date);**

**void find\_house(int record[21][26] , int houserecord[5][2] );**

**int find\_house\_number(int record[21][26] );**

**void find\_house\_xy(int record[21][26] , Point houserecord[5]);**

**Point find\_closest\_house(int record[21][26]);**

**void setinfo(char \*username,struct droneinfo dronerecord[5],struct pesticideinfo pestrecord[3],int setting[2]);**

**#endif**

**/\*\*\*\*\*\*\*\*\*draw.h\*\*\*\*\*\*\*\*\*/**

**#ifndef \_DRAW\_H\_**

**#define \_DRAW\_H\_**

**void put\_pencil(int x,int y,int COLOR1,int COLOR2,int COLOR3,int pix);**

**void put\_rubber(int x,int y,int COLOR,int pix);**

**void put\_sprout(int x,int y,int COLOR,int pix);**

**void put\_field(int x,int y,int LIGHTCOLOR,int DARKCOLOR,int pix);**

**void put\_house(int x,int y,int DARKCOLOR,int LIGHTCOLOR,int pix);**

**void put\_file(int x,int y,int DARKCOLOR,int LIGHTCOLOR,int pix);**

**void put\_arrow(int x,int y,int COLOR,int pix,int flag);**

**void put\_shovel(int x,int y,int pix,int COLOR1,int COLOR2);**

**void put\_drone2(int x,int y,int DARKCOLOR,int LIGHTCOLOR,int pix);**

**void put\_crop1(int x,int y,int type,int situation);**

**void put\_crop2(int x,int y,int type,int situation);**

**void put\_crop3(int x,int y,int type,int situation);**

**void put\_drone1(float x,float y,int pix);**

**void put\_tree1(int x,int y,int pix);**

**void put\_Erlenmeyer\_flask(int x,int y,int style,int pix);**

**void put\_water(int x,int y,int COLOR,int pix);**

**void put\_cloud(int x,int y,int pix);**

**void put\_sun(int x,int y,int pix,int COLOR);**

**void put\_rain(int x,int y,int pix);**

**void put\_snow(int x,int y,int pix);**

**void put\_up\_arrow(int x,int y,int pix);**

**void put\_down\_arrow(int x,int y,int pix);**

**#endif**

**/\*\*\*\*\*\*\*\*\*\*drone.h\*\*\*\*\*\*\*\*\*\*\*\*/**

**#ifndef \_DRONE\_H\_**

**#define \_DRONE\_H\_**

**void drone\_screen(int language);**

**int drone\_page(char \*username,char \*drone\_name\_now,DRONEINFO \*drone,int language);**

**void open\_file2(int language);**

**#endif**

**/\*\*\*\*\*\*\*\*\*\*\*\*\*dronf.h\*\*\*\*\*\*\*\*\*\*\*\*/**

**#ifndef \_DRONEFUNC\_H\_**

**#define \_DRONEFUNC\_H\_**

**void dronefunc\_screen(int language);**

**int drone\_list\_page(char \*username,DRONEINFO \*nowdrone,int language);**

**#endif**

**/\*\*\*\*\*\*\*\*\*fief.h\*\*\*\*\*\*\*\*\*/**

**#ifndef \_FIELDFUNC\_H\_**

**#define \_FIELDFUNC\_H\_**

**void draw\_field\_screen(int record[21][26] ,char \*now\_field,int language);**

**int draw\_field\_page(char \*name,char \*now\_field,int language);**

**void put\_ok\_button(int flag);**

**void open\_file(int language);**

**#endif**

**/\*\*\*\*\*\*\*\*\*\*\*field.h\*\*\*\*\*\*\*\*\*/**

**#ifndef \_FIELD\_H\_**

**#define \_FIELD\_H\_**

**#include "fief.h"**

**#include "public.h"**

**void field\_screen( int record[21][26] ,char \*now\_field,int language);**

**int field\_page(INFO\* temp,char\* now\_field,int language);**

**#endif**

**/\*\*\*\*\*\*\*\*\*\*\*\*\*\*flyfunc.h\*\*\*\*\*\*\*\*\*\*\*\*\*/**

**#ifndef \_FLYFUNC\_H\_**

**#define \_FLYFUNC\_H\_**

**void save\_bk\_drone(int nx, int ny);**

**void clear\_drone(int nx, int ny) ;**

**void draw\_drone(int nx, int ny);**

**int x\_record\_to\_screen(int x);**

**int y\_record\_to\_screen(int y);**

**void new\_field( int record[21][26] ,char \*nowfield);**

**void update\_field(int record[21][26], int drone\_x , int drone\_y );**

**void move\_drone1(int record[21][26], int x1,int y1,int x2,int y2 );**

**void simulate( int record[21][26] ,char \*nowfield);**

**void simulate\_handmode(int record[21][26] , int route[100][2] );**

**void fly\_detect(int record[21][26] , Point start );**

**void fly\_spray(int record[21][26], int n );**

**double dis\_a\_to\_b(Point a ,Point b );**

**double relative\_position(Point A ,Point B ,Point C);**

**double projection(Point A, Point B, Point C) ;**

**void fly\_one\_round(int record[21][26] , Point A);**

**#endif**

**/\*\*\*\*\*\*\*\*\*\*\*\*\*home.h\*\*\*\*\*\*\*\*\*\*\*\*/**

**#ifndef \_HOME\_H\_**

**#define \_HOME\_H\_**

**#define MAX\_ITEMS 20**

**#define BTN\_WIDTH 250**

**#define BTN\_HEIGHT 40**

**#define MAX\_FILES 20 // 定义文件数量上限**

**// 状态枚举**

**enum { SELECT\_USER, SELECT\_CATEGORY, SELECT\_FILE, SHOW\_CONTENT };**

**int home\_page(INFO \*temp, int language);**

**void home\_button\_recovery(int num, int language);**

**void home\_button\_light(int flag, int language);**

**void home\_screen(int language);**

**#endif**

**/\*\*\*\*\*\*\*\*\*\*\*\*house.h\*\*\*\*\*\*\*\*\*\*\*\*\*\*/**

**#ifndef \_HOUSE\_H\_**

**#define \_HOUSE\_H\_**

**void house\_screen(int record[21][26] ,char \*nowfield,int language);**

**void clear\_button(int flag);**

**int house\_page(char \*username,char \*nowfield,int language);**

**void paint\_field( int record[21][26] ,char \*nowfield,int language);**

**void put\_ok\_button(int flag);**

**#endif**

**/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*hz.h(借用)\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/**

**#ifndef \_HZ\_H\_**

**#define \_HZ\_H\_**

**void puthz(int x, int y, char \*s, int flag, int part, int color);**

**#endif**

**/\*\*\*\*\*\*\*\*\*\*\*\*\*\*langua.h\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/**

**#ifndef \_LANGUAGE\_H\_**

**#define \_LANGUAGE\_H\_**

**int language\_page(int \*language);**

**#endif**

**/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*logfuc.h\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/**

**#ifndef \_LOGFUNC\_H\_**

**#define \_LOGFUNC\_H\_**

**int check(INFO \*user,int language);**

**void temp\_input(char \*temp,int x,int y,int maxi,int w,int h,int COLOR1,int size);**

**int userinfo\_input(INFO \*user,int \*state1,int \*state2,int language);**

**void password\_warning(char \*s);**

**void title\_warning(char \*s,int PAGE,int language);**

**int password\_check(const char \*password);**

**int user\_exist\_check(const char \*username);**

**void creat\_user\_directory(INFO \*user);**

**void creat\_userinfo\_file(INFO \*user);**

**#endif**

**/\*\*\*\*\*\*\*\*\*\*\*\*\*login.h\*\*\*\*\*\*\*\*\*\*\*\*\*/**

**#ifndef \_LOGIN\_H\_**

**#define \_LOGIN\_H\_**

**#include "public.h"**

**void login\_bkpaint(int language);//鐢荤櫥褰曢〉闈㈣儗鏅?**

**void signup\_button\_recover(int language);**

**void signup\_button\_light(int language);**

**void put\_flower(int x,int y,int pix,int COLOR);**

**void ok\_button\_light(void);**

**void ok\_button\_recover(void);**

**int login\_page(INFO \*temp,int language);**

**#endif**

**/\*\*\*\*\*\*\*\*\*\*\*logs.h\*\*\*\*\*\*\*\*\*\*/**

**#ifndef \_LOGS\_H\_**

**#define \_LOGS\_H\_**

**#define MAX\_ITEMS 20**

**#define BTN\_WIDTH 250**

**#define BTN\_HEIGHT 40**

**#define MAX\_FILES 20 // 定义文件数量上限**

**// 界面绘制与处理函数**

**int logs\_page(int language);**

**int draw\_user\_list(const char users[][13], int count, int language, int drawuserlist);**

**int draw\_category\_list(int language, int drawcategorylist, int homeflag);**

**int draw\_file\_list(const char files[][13], int count, int language, int drawfilelist);**

**void show\_file\_content(const char\* path, int language, int scuderia);**

**void trans(int num, char\* str);**

**int go\_to\_home(int\* state);**

**void draw\_home\_button(int state);**

**void put\_flower(int x, int y, int pix, int COLOR);**

**void paint\_field\_in\_log(int record[21][26], char\* nowfield, int language, int paintfieldinlog, char\* users);**

**/\* 用户数据结构 \*/**

**struct UserData**

**{**

**char logsname[9];**

**char drone\_files[MAX\_FILES][13];**

**char field\_files[MAX\_FILES][13];**

**char pesticide\_files[MAX\_FILES][13];**

**int drone\_count;**

**int field\_count;**

**int pesticide\_count;**

**};**

**#endif**

**/\*\*\*\*\*\*\*\*\*\*\*\*\*\*main.h\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/**

**#ifndef \_MAIN\_H**

**#define \_MAIN\_H**

**#include "detectf.h"**

**#include "login.h"**

**#include "welcome.h"**

**#include "signup.h"**

**#include "home.h"**

**#include "field.h"**

**#include "fief.h"**

**#include "plant.h"**

**#include "drone.h"**

**#include "house.h"**

**#include "dronf.h"**

**#include "flyfunc.h"**

**#include "detect.h"**

**#include "pest.h"**

**#include "langua.h"**

**#include "logs.h"**

**#include "quit.h"**

**#define WELCOME 0**

**#define LOGIN 1**

**#define SIGHUP 2**

**#define HOME 3**

**#define FIELD 4**

**#define DRONE 5**

**#define PESTICIDE 6**

**#define DETECTOR 7**

**#define QUIT 8**

**#define LOGS 9**

**#define DRAW\_FIELD 10**

**#define PLANT 11**

**#define HOUSE 12**

**#define DRONE\_LIST 13**

**#endif**

**/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*mouse.h(借用)\*\*\*\*\*\*\*\*\*\*\*\*\*/**

**#ifndef \_MOUSE\_H\_**

**#define \_MOUSE\_H\_**

**int mouse\_press(int x1, int y1, int x2, int y2);//如果在框中点击，则返回1；在框中未点击，则返回2；不在框中则返回0**

**void mouse(int,int);//设计鼠标**

**void mouseinit(void);//初始化**

**//void mou\_pos(int\*,int\*,int\*);//更改鼠标位置**

**void mread(int \*,int \*,int\*);//改坐标不画**

**void save\_bk\_mou(int x,int y);//存鼠标背景**

**void clrmous(int x,int y);//清除鼠标**

**void drawmous(int x,int y);//画鼠标**

**void newmouse(int \*nx,int \*ny,int \*nbuttons); //更新鼠标**

**extern int MouseX;**

**extern int MouseY;**

**extern int MouseS;**

**extern int press;**

**extern union REGS regs;**

**#endif**

**/\*\*\*\*\*\*\*\*\*\*\*\*pest.h\*\*\*\*\*\*\*\*\*\*\*\*\*\*/**

**#ifndef \_PESTICIDE\_H\_**

**#define \_PESTICIDE\_H\_**

**void pesticide\_screen(int language);**

**int pesticide\_page(char \*username,char \*now\_pesticide,int language);**

**#endif**

**/\*\*\*\*\*\*\*\*\*\*\*\*plant.h\*\*\*\*\*\*\*\*\*\*\*\*\*/**

**#ifndef \_PLANT\_H\_**

**#define \_PLANT\_H\_**

**void paint\_field( int record[21][26] ,char \*nowfield,int language);**

**void plant\_screen( int record[21][26] ,char \*nowfield,int language);**

**int plant\_page(char \*username,char \*nowfield,int language);**

**void put\_ok\_button(int flag);**

**#endif**

**/\*\*\*\*\*\*\*\*\*\*\*\*\*public.h\*\*\*\*\*\*\*\*\*\*\*\*\*\*/**

**#ifndef \_PUBLIC\_H\_**

**#define \_PUBLIC\_H\_**

**#define NUM0 0x5230**

**#define NUM1 0x4f31**

**#define NUM2 0x5032**

**#define NUM3 0x5133**

**#define NUM4 0x4134**

**#define NUM5 0x4c35**

**#define NUM6 0x4d36**

**#define NUM7 0x4737**

**#define NUM8 0x4838**

**#define NUM9 0x4939**

**#define F2 0x3c00**

**#define F3 0x3d00**

**#define F4 0x3e00**

**#define F5 0x3f00**

**#define F6 0x4000**

**#define F7 0x4100**

**#define F8 0x4200**

**#define F9 0x4300**

**#define F10 0x4400**

**#define F1 0x3b00**

**#define ENTER 0x1c0d**

**#define BACK 0x0e08**

**#define ESC 0x011b**

**#define UP 0x4800**

**#define DOWN 0x5000**

**#define RIGHT 0x4d00**

**#define LEFT 0x4b00**

**#define ONE 0x0231**

**#define TWO 0x0332**

**#define THREE 0x0433**

**#define FOUR 0x0534**

**#define FIVE 0x0635**

**#define SIX 0x0736**

**#define SEVEN 0x0837**

**#define EIGHT 0x0938**

**#define NINE 0x0a39**

**#define ZERO 0x0b30**

**#define WELCOME 0**

**#define LOGIN 1**

**#define SIGNUP 2**

**#define HOME 3**

**#define FIELD 4**

**#define DRONE 5**

**#define PESTICIDE 6**

**#define DETECTOR 7**

**#define QUIT 8**

**#define README 9**

**#define DRAW\_FIELD 10**

**#define PLANT 11**

**#define HOUSE 12**

**#define DRONE\_LIST 13**

**#define WEIGHT\_MAX 60**

**#define WEIGHT\_MIN 30**

**#define WING\_MAX 8**

**#define WING\_MIN 4**

**#define TIME\_MAX 10**

**#define TIME\_MIN 5**

**#define PAINT 0**

**#define RECOVER 1**

**#define LIGHT 2**

**#define DELETE 3**

**#define LEFTARROW 1**

**#define RIGHTARROW 2**

**#define SPROUT 1**

**#define TRANSITION 2**

**#define CROP 3**

**#define SICK 1**

**#define HEALTHY 2**

**#define CROP1\_STATE1 12**

**#define CROP1\_STATE2 24**

**#define CROP2\_STATE1 14**

**#define CROP2\_STATE2 28**

**#define CROP3\_STATE1 10**

**#define CROP3\_STATE2 20**

**#define CALENDER\_MAX 60**

**#define MAX 0x3f3f3f3f**

**#define BUG 4**

**#define CHINESE 1**

**#define ENGLISH 2**

**#define MAX\_ITEMS 20**

**#define BTN\_WIDTH 250**

**#define BTN\_HEIGHT 40**

**#define MAX\_FILES 20**

**#define GOHOME 300**

**void printline(int x,int y,int len,int n,int flag,int COLOR,int wid,int gap);**

**void printbox(int x1,int y1,int x2,int y2,int COLOR,int len,int wid,int gap);**

**void back\_button(int flag);**

**void string\_limitation(char \*string , int len);**

**void warning(char \*msg,int nx,int ny,int size);**

**void drop\_down\_menu(int x,int y,int wide,int h,int n,int size,char \*\*msgs,int lightcolor,int darkcolor,char \*record);**

**typedef struct userinfo**

**{**

**char name[18];**

**char password[18];**

**}INFO;**

**typedef struct droneinfo**

**{**

**char name[10];**

**char weight[10];**

**char wing[10];**

**char weather[10];**

**char time[10];**

**char power[10];**

**} DRONEINFO;**

**typedef struct pesticideinfo**

**{**

**char name[10];**

**char period[10];**

**char pest\_style[20];**

**} PESTICIDEINFO;**

**typedef struct house**

**{**

**int i ;**

**int j ;**

**int record ;**

**int drone\_index ;**

**} House ;**

**typedef struct point**

**{**

**int x;**

**int y;**

**} Point ;**

**#include <stdio.h>**

**#include <stdlib.h>**

**#include <string.h>**

**#include <graphics.h>**

**#include <math.h>**

**#include <bios.h>**

**#include <conio.h>**

**#include <dos.h>**

**#include <time.h>**

**#include <io.h>**

**#include <dir.h>**

**#include "hz.h"**

**#include "mouse.h"**

**#include "draw.h"**

**#include "plant.h"**

**#include "logs.h"**

**#endif**

**/\*\*\*\*\*\*\*\*\*\*\*\*\*quit.h\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/**

**#ifndef \_QUIT\_H\_**

**#define \_QUIT\_H\_**

**void quit\_page(void);**

**#endif**

**/\*\*\*\*\*\*\*\*\*\*\*\*\*\*signup.h\*\*\*\*\*\*\*\*\*\*\*\*\*\*/**

**#ifndef \_SIGNUP\_H\_**

**#define \_SIGNUP\_H\_**

**void signup\_bkpaint(int language);**

**int signup\_page(int language);**

**void ok\_button\_light(void);**

**void ok\_button\_recover(void);**

**void show\_rule\_english();**

**void show\_rule\_chinese();**

**#endif**

**/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*welcome.h\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/**

**#ifndef \_WELCOME\_H\_**

**#define \_WELCOME\_H\_**

**void welcome\_screen(int language);**

**void put\_title(int language);**

**void drone(void);**

**void drone\_wing(int\* drone\_flag,int x,int y);**

**int welcome\_page(int \*language);**

**void welcome\_buttons\_recovery(int num,int language);**

**void welcome\_buttons\_light(int flag,int language);**

**#endif**

**/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/**

**.c(按首字母排序)**

**/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/**

**/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*detect.c\*\*\*\*\*\*\*\*\*\*\*\*/**

**#include "public.h"**

**#include "detect.h"**

**#include "flyfunc.h"**

**#include "detectf.h"**

**void detect\_screen(int record[21][26] , char \*nowfield ,int language)**

**{**

**setbkcolor(WHITE);**

**cleardevice();**

**clrmous(MouseX,MouseY);**

**paint\_field(record ,nowfield,language);**

**put\_calender();**

**mode\_button(PAINT);**

**start\_button(PAINT);**

**pause\_button(PAINT);**

**chart\_button(PAINT);**

**}**

**void put\_calender(void)**

**{**

**setfillstyle(SOLID\_FILL,DARKGRAY);**

**bar(5,10,95,13);//(5,10) (95,120)**

**bar(5,10,8,120);**

**bar(5,117,95,120);**

**bar(92,10,95,120);**

**bar(5,70,95,73);//73-117 44 22 73-95 95-117 x:68-92**

**bar(65,70,68,120);**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,1);**

**outtextxy(15,18,"DAY");**

**put\_up\_arrow(72,90,2);**

**put\_down\_arrow(72,100,2);**

**}**

**void put\_calender\_number(char \*date)//(15,20,90,60)**

**{**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(11,25,90,69);**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,3);**

**if(strlen(date)==3) outtextxy(15,35,date);**

**if(strlen(date)==1) outtextxy(39,35,date);**

**if(strlen(date)==2) outtextxy(27,35,date);**

**}**

**void put\_calender\_weather(char weather[10])**

**{**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(8,73,65,117);**

**if(strcmp(weather,"CLOUD") == 0 ) {**

**put\_cloud(15,100,3);**

**}**

**else if(strcmp(weather,"SUN")==0 ) {**

**put\_sun(28,86,3,RED);**

**}**

**else if(strcmp(weather,"RAIN")==0 ) {**

**put\_rain(20,95,3);**

**}**

**else if(strcmp(weather,"SNOW")==0 ) {**

**put\_snow(20,95,3);**

**}**

**}**

**void mode\_button(int flag)**

**{**

**if(flag == PAINT)**

**{**

**clrmous(MouseX,MouseY);**

**printbox(5,130,95,169,DARKGRAY,1,3,3);**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,2);**

**outtextxy(13,141,"MODE>");**

**}**

**else if(flag == LIGHT)**

**{**

**clrmous(MouseX,MouseY);**

**printbox(5,130,95,169,BLUE,1,3,3);//39**

**setcolor(CYAN);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,2);**

**outtextxy(13,141,"MODE>");**

**}**

**else if(flag == RECOVER)**

**{**

**mode\_button(PAINT);**

**}**

**}**

**void start\_button(int flag)**

**{**

**if(flag == PAINT)**

**{**

**clrmous(MouseX,MouseY);**

**printbox(5,180,95,219,DARKGRAY,1,3,3);**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,2);**

**outtextxy(13,191,"START");**

**}**

**else if(flag == LIGHT)**

**{**

**clrmous(MouseX,MouseY);**

**printbox(5,180,95,219,BLUE,1,3,3);**

**setcolor(CYAN);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,2);**

**outtextxy(13,191,"START");**

**}**

**else if(flag == RECOVER)**

**{**

**start\_button(PAINT);**

**}**

**}**

**void pause\_button(int flag)**

**{**

**if(flag == PAINT)**

**{**

**clrmous(MouseX,MouseY);**

**printbox(5,230,95,269,DARKGRAY,1,3,3);**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,2);**

**outtextxy(13,241,"PAUSE");**

**}**

**else if(flag == LIGHT)**

**{**

**clrmous(MouseX,MouseY);**

**printbox(5,230,95,269,BLUE,1,3,3);**

**setcolor(CYAN);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,2);**

**outtextxy(13,241,"PAUSE");**

**}**

**else if(flag == RECOVER)**

**{**

**pause\_button(PAINT);**

**}**

**}**

**void chart\_button(int flag)**

**{**

**if(flag == PAINT)**

**{**

**clrmous(MouseX,MouseY);**

**printbox(5,280,95,319,DARKGRAY,1,3,3);**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,2);**

**outtextxy(13,291,"CHART");**

**}**

**else if(flag == LIGHT)**

**{**

**clrmous(MouseX,MouseY);**

**printbox(5,280,95,319,BLUE,1,3,3);**

**setcolor(CYAN);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,2);**

**outtextxy(13,291,"CHART");**

**}**

**else if(flag == RECOVER)**

**{**

**chart\_button(PAINT);**

**}**

**}**

**void route\_button(int flag)**

**{**

**if(flag == PAINT)**

**{**

**clrmous(MouseX,MouseY);**

**printbox(5,330,95,369,DARKGRAY,1,3,3);**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,2);**

**outtextxy(13,341,"ROUTE");**

**}**

**else if(flag == LIGHT)**

**{**

**clrmous(MouseX,MouseY);**

**printbox(5,330,95,369,BLUE,1,3,3);**

**setcolor(CYAN);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,2);**

**outtextxy(13,341,"ROUTE");**

**}**

**else if(flag == DELETE)**

**{**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(5,330,95,369);**

**}**

**else if(flag == RECOVER)**

**{**

**route\_button(PAINT);**

**}**

**}**

**void set\_button(int flag)**

**{**

**if(flag == PAINT)**

**{**

**clrmous(MouseX,MouseY);**

**printbox(5,330,95,369,DARKGRAY,1,3,3);**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,2);**

**outtextxy(13,341," SET");**

**}**

**else if(flag == LIGHT)**

**{**

**clrmous(MouseX,MouseY);**

**printbox(5,330,95,369,BLUE,1,3,3);**

**setcolor(CYAN);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,2);**

**outtextxy(13,341," SET");**

**}**

**else if(flag == DELETE)**

**{**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(5,330,95,369);**

**}**

**else if(flag == RECOVER)**

**{**

**set\_button(PAINT);**

**}**

**}**

**void automode\_button(int flag)**

**{**

**if(flag == PAINT)**

**{**

**clrmous(MouseX,MouseY);**

**printbox(5,380,95,419,DARKGRAY,1,3,3);**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,2);**

**outtextxy(13,391," num ");**

**}**

**else if(flag == LIGHT)**

**{**

**clrmous(MouseX,MouseY);**

**printbox(5,380,95,419,BLUE,1,3,3);**

**setcolor(CYAN);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,2);**

**outtextxy(13,391," num ");**

**}**

**else if(flag == DELETE)**

**{**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(5,380,95,419);**

**}**

**else if(flag == RECOVER)**

**{**

**automode\_button(PAINT);**

**}**

**}**

**int detect\_page(char \*username ,char \*nowfield,int language)**

**{**

**int record[21][26];**

**int i,j,k,pre\_x=-1,pre\_y=-1,x,y,temp\_date;**

**int flag = 0,flag2 = 0 , mode = 0, handmode\_flag = 0 , automode\_flag = 0 , routebutton\_flag = 0 , setbutton\_flag = 0 , line\_flag = 0 , field\_flag=0;**

**int random\_weather ,automode = 0 ;**

**int num[10],setting[2];**

**char path[100]="C:\\DATA\\";**

**char presentmode[10],presentmode\_auto[10];**

**char \*tempmsgs[2] = {"hand>","auto>"};**

**char \*tempmsgs\_auto[2] = {"one >","many>"};**

**FILE \*fp;**

**int route[100][2];**

**char date[10] = "1" , compare[10] ;**

**char weather[10] = "CLOUD" ;**

**struct droneinfo drone\_record[5];**

**struct pesticideinfo pest\_record[3];**

**memset(record , 0 , sizeof(record));**

**memset(route,-1, sizeof(route));**

**memset(compare , 0 , sizeof(compare));**

**memset(presentmode,0,sizeof(presentmode));**

**memset(presentmode\_auto,0,sizeof(presentmode\_auto));**

**memset(num,0,sizeof(num));**

**memset(drone\_record,0,sizeof(drone\_record));**

**memset(pest\_record,0,sizeof(pest\_record));**

**memset(setting,0,sizeof(setting));**

**strcat(path,username);**

**strcat(path,"\\FIELD\\");**

**strcat(path,nowfield);**

**if ( (fp = fopen(path,"rb")) != NULL )**

**{**

**for(i=0; i<21 ;i++ )**

**{**

**fread( record[i],sizeof(int), 26 ,fp);**

**}**

**}**

**else**

**{**

**// perror("error in opening fieldfile!");**

**}**

**fclose(fp);**

**detect\_screen(record , nowfield,language);**

**mouseinit();**

**if( strlen(date) != 0 ) {**

**put\_calender\_number(date);**

**change\_weather(weather);**

**put\_calender\_weather(weather);**

**}**

**while(1)**

**{**

**newmouse(&MouseX,&MouseY,&press);**

**if( mouse\_press(5,130,95,169)==2 )//mode未点击5,130,95,169**

**{**

**if( flag != 1 && num[1]!=10)**

**{**

**MouseS = 1 ;**

**flag = 1 ;**

**num[1] = 1;**

**clrmous(MouseX,MouseY);**

**mode\_button(LIGHT);**

**}**

**}**

**else if( mouse\_press(5,130,95,169)==1 )//mode点击**

**{**

**MouseS = 0;**

**clrmous(MouseX,MouseY);**

**drop\_down\_menu(5,169,90,35,2,2, tempmsgs ,WHITE,BLUE,presentmode);**

**if(strlen(presentmode) != 0)**

**{**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(5,130,95,169);**

**printbox(5,130,95,169,BLUE,1,3,3);**

**setcolor(CYAN);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,2);**

**outtextxy(13,141,presentmode);**

**num[1]=10;**

**}**

**if(presentmode[0]=='a') {**

**if(line\_flag != 0 )**

**{**

**paint\_field\_right(record , nowfield , language);**

**line\_flag = 0 ;**

**}**

**}**

**start\_button(PAINT);**

**pause\_button(PAINT);**

**chart\_button(PAINT);**

**if(presentmode[0]=='a' && setbutton\_flag == 0 ) {**

**set\_button(PAINT);**

**automode\_button(PAINT);**

**}**

**else if(presentmode[0]=='h' && routebutton\_flag == 0 ) route\_button(PAINT);**

**delay(50);//防止下拉菜单选择后连点**

**}**

**else if( mouse\_press(5,180,95,219)==2 )//start未点击**

**{**

**if( flag != 3 )**

**{**

**MouseS = 1 ;**

**flag = 3 ;**

**num[3] = 1;**

**clrmous(MouseX,MouseY);**

**start\_button(LIGHT);**

**}**

**}**

**else if( mouse\_press(5,180,95,219)==1 )//start点击5,180,95,219**

**{**

**MouseS = 0;**

**clrmous(MouseX,MouseY);**

**if( handmode\_flag == 1 && presentmode[0] == 'h')**

**{**

**simulate\_handmode(record,route);**

**}**

**if(presentmode[0] == 'a')**

**{**

**if((setting[0]==0 || setting[1]==0 ) && automode == 0 ) {**

**warning("please choose set & mode!",240,255,1);**

**continue ;**

**}**

**else if(setting[0]==0 || setting[1]==0 ) {**

**warning("please choose set!",240,255,1);**

**continue ;**

**}**

**else if( automode == 0) {**

**warning("please choose mode!",240,255,1);**

**continue ;**

**}**

**auto\_simulate( record , date ,username , nowfield ,automode,drone\_record,pest\_record);**

**}**

**}**

**else if( mouse\_press(5,230,95,269)==2 )//pause未点击**

**{**

**if( flag != 4 )**

**{**

**MouseS = 1 ;**

**flag = 4 ;**

**num[4] = 1;**

**clrmous(MouseX,MouseY);**

**pause\_button(LIGHT);**

**}**

**}**

**else if( mouse\_press(5,230,95,269)==1 )//pause点击**

**{**

**MouseS = 0;**

**clrmous(MouseX,MouseY);**

**}**

**else if( mouse\_press(5,280,95,319)==2 )//chart未点击**

**{**

**if( flag != 5 )**

**{**

**MouseS = 1 ;**

**flag = 5 ;**

**num[5] = 1;**

**clrmous(MouseX,MouseY);**

**chart\_button(LIGHT);**

**}**

**}**

**else if( mouse\_press(5,280,95,319)==1 )//chart点击**

**{**

**MouseS = 0;**

**clrmous(MouseX,MouseY);**

**delay(200);**

**show\_chart(record,nowfield);**

**delay(100);**

**paint\_field\_right(record,nowfield,language);**

**}**

**else if( mouse\_press(595,5,630,40)==2 )//退出键未点击**

**{**

**if( flag!=2 )**

**{**

**MouseS = 1 ;**

**flag = 2 ;**

**num[2] = 1;**

**clrmous(MouseX,MouseY);**

**back\_button(LIGHT);**

**}**

**}**

**else if( mouse\_press(595,5,630,40)==1 )//退出点击**

**{**

**MouseS = 0 ;**

**clrmous(MouseX,MouseY);**

**delay(100);**

**return HOME;**

**}**

**else if( mouse\_press(15,20,90,60)==1 ) //日历数字点击**

**{**

**strcpy(compare , date );**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(11,25,90,69);**

**temp\_input(date , 18,35, 3 , 22 ,20,WHITE,3);//4 33 25**

**put\_calender\_number(date);**

**if(strcmp(compare , date )!= 0 ) {**

**change\_weather(weather);**

**put\_calender\_weather(weather);**

**recover\_field(record,username,nowfield);**

**grow(record , atoi(date));//每次日期改变时,都刷新右侧地图**

**field\_flag = 1 ;**

**}**

**}**

**else if( mouse\_press(68,73,92,95)==1 )// 上箭头**

**{**

**strcpy(compare , date );**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(11,25,90,69);**

**temp\_date = atoi(date);**

**if(temp\_date >= CALENDER\_MAX ) continue ;**

**temp\_date++ ;**

**itoa(temp\_date , date , 10 );**

**put\_calender\_number(date);**

**change\_weather(weather);**

**put\_calender\_weather(weather);**

**if(temp\_date == 2 )**

**{**

**if(strcmp(compare , date )!= 0 ) {**

**grow(record , atoi(date));//每次日期改变时,都刷新右侧地图**

**field\_flag = 1 ;**

**}**

**}**

**else {**

**if(strcmp(compare , date )!= 0 ) {**

**grow\_oneday(record , temp\_date);**

**field\_flag = 1 ;**

**}**

**}**

**delay(200);**

**}**

**else if( mouse\_press(68,95,92,117)==1 )// 下箭头**

**{**

**strcpy(compare , date );**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(11,25,90,69);**

**temp\_date = atoi(date);**

**if(temp\_date==1) continue ;**

**temp\_date-- ;**

**itoa(temp\_date , date , 10 );**

**put\_calender\_number(date);**

**change\_weather(weather);**

**put\_calender\_weather(weather);**

**if(strcmp(compare , date )!= 0 ) {**

**grow(record , atoi(date));//每次日期改变时,都刷新右侧地图**

**field\_flag = 1 ;**

**}**

**delay(200);**

**}**

**else if( mouse\_press(5,330,95,369)==2 && presentmode[0]=='h') //route未点击**

**{**

**if( flag != 6 )**

**{**

**MouseS = 1 ;**

**flag = 6 ;**

**num[6] = 1;**

**clrmous(MouseX,MouseY);**

**route\_button(LIGHT);**

**}**

**}**

**else if( mouse\_press(5,330,95,369)==1 && presentmode[0]=='h')//route点击**

**{**

**MouseS = 0;**

**clrmous(MouseX,MouseY);**

**if(handmode\_flag == 1 ) //存在hand档的地图 清空地图**

**{**

**paint\_field\_right(record , nowfield,language);**

**memset(route,-1,sizeof(route));**

**handmode\_flag = 0 ;**

**}**

**mode = 1 ;**

**delay(200);**

**}**

**else if( mouse\_press(5,330,95,369)==2 && presentmode[0]=='a') //set未点击**

**{**

**if( flag != 6 )**

**{**

**MouseS = 1 ;**

**flag = 6 ;**

**num[6] = 1;**

**clrmous(MouseX,MouseY);**

**set\_button(LIGHT);**

**}**

**}**

**else if( mouse\_press(5,330,95,369)==1 && presentmode[0]=='a')//set点击**

**{**

**MouseS = 0;**

**clrmous(MouseX,MouseY);**

**delay(200);**

**setinfo(username , drone\_record ,pest\_record , setting);**

**paint\_field\_right(record,nowfield,language);**

**}**

**else if( mouse\_press(5,380,95,419)==2 && presentmode[0]=='a') //automode未点击**

**{**

**if( flag != 7 && num[7]!=10)**

**{**

**MouseS = 1 ;**

**flag = 7 ;**

**num[7] = 1;**

**clrmous(MouseX,MouseY);**

**automode\_button(LIGHT);**

**}**

**}**

**else if( mouse\_press(5,380,95,419)==1 && presentmode[0]=='a')//automode点击**

**{**

**MouseS = 0;**

**clrmous(MouseX,MouseY);**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(5,380,95,419);**

**setcolor(CYAN);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,2);**

**if(automode == 0 || automode == 2) {**

**// automode\_button(DELETE);**

**strcpy(presentmode\_auto,"one >");**

**automode = 1 ;**

**num[7] = 10;**

**}**

**else if(automode == 1 )**

**{**

**// automode\_button(DELETE);**

**strcpy(presentmode\_auto,"many>");**

**automode = 2 ;**

**num[7] = 10;**

**}**

**outtextxy(13,391,presentmode\_auto);**

**printbox(5,380,95,419,BLUE,1,3,3);**

**delay(200);**

**}**

**else**

**{**

**if(flag!=0)**

**{**

**MouseS = 0 ;**

**flag = 0 ;**

**}**

**}**

**if( presentmode[0]!='h' && routebutton\_flag == 1)**

**{**

**route\_button(DELETE) ;**

**routebutton\_flag = 0 ;**

**}**

**if( presentmode[0]=='a' && setbutton\_flag == 0)**

**{**

**set\_button(PAINT);**

**automode\_button(PAINT);**

**setbutton\_flag = 1;**

**}**

**if( presentmode[0]!='a' && setbutton\_flag == 1)**

**{**

**set\_button(DELETE) ;**

**automode\_button(DELETE);**

**setbutton\_flag = 0 ;**

**}**

**if( presentmode[0]=='h' && routebutton\_flag == 0)**

**{**

**route\_button(PAINT);**

**routebutton\_flag = 1;**

**}**

**if( flag!=1 && num[1]==1)**

**{**

**clrmous(MouseX,MouseY);**

**mode\_button(RECOVER);**

**num[1]=0;**

**}**

**else if( flag!=2 && num[2]==1 )**

**{**

**clrmous(MouseX,MouseY);**

**back\_button(RECOVER);**

**num[2]=0;**

**}**

**else if( flag!=3 && num[3]==1 )**

**{**

**clrmous(MouseX,MouseY);**

**start\_button(RECOVER);**

**num[3]=0;**

**}**

**else if( flag!=4 && num[4]==1 )**

**{**

**clrmous(MouseX,MouseY);**

**pause\_button(RECOVER);**

**num[4]=0;**

**}**

**else if( flag!=5 && num[5]==1 )**

**{**

**clrmous(MouseX,MouseY);**

**chart\_button(RECOVER);**

**num[5]=0;**

**}**

**else if( flag!=6 && num[6]==1 )**

**{**

**clrmous(MouseX,MouseY);**

**if( presentmode[0] == 'h') {**

**route\_button(RECOVER);**

**}**

**else if(presentmode[0] == 'a') {**

**set\_button(RECOVER);**

**}**

**num[6] = 0;**

**}**

**else if( flag!=7 && num[7]==1 && presentmode[0] == 'a' )**

**{**

**clrmous(MouseX,MouseY);**

**automode\_button(RECOVER);**

**num[7] = 0;**

**}**

**if(mode == 1) //选择hand后选点**

**{**

**clrmous(MouseX,MouseY);**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(110,0,640,50);**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,2);**

**outtextxy(110,18,"please choose your route!");**

**k=0;**

**while(1)**

**{**

**newmouse(&MouseX,&MouseY,&press);**

**if( mouse\_press(110,50,630,470)==1 )//处于画图区域并且点击**

**{**

**if(k==0) {**

**i = (470-MouseY)/20;**

**j = (MouseX - 110)/20;**

**if(record[i][j] < 3 || record[i][j] > 6 ) {**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(110,0,640,50);**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,2);**

**outtextxy(110,18,"please start from a house!");**

**delay(1500);**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(110,0,640,50);**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,2);**

**outtextxy(110,18,"please choose your route!");**

**continue ;**

**}**

**}**

**route[k][0] = MouseX;**

**route[k][1] = MouseY;**

**clrmous(MouseX,MouseY);**

**delay(200);**

**setfillstyle(SOLID\_FILL,LIGHTBLUE);**

**fillellipse(MouseX, MouseY, 3, 3);**

**if(k!=0) {**

**setlinestyle(DOTTED\_LINE, 0, THICK\_WIDTH);**

**setcolor(LIGHTBLUE);**

**line(10,10,30,10);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,2);**

**line(route[k-1][0],route[k-1][1],route[k][0],route[k][1]);**

**}**

**k++;**

**if(line\_flag != 1 ) line\_flag = 1 ;**

**}**

**if( mouse\_press(5,330,95,369)==1 ) //route点击**

**{**

**route[k][0] = route[0][0];**

**route[k][1] = route[0][1];**

**setlinestyle(DOTTED\_LINE, 0, THICK\_WIDTH);**

**setcolor(LIGHTBLUE);**

**line(route[k-1][0],route[k-1][1],route[k][0],route[k][1]);**

**clrmous(MouseX , MouseY);**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(110,0,640,50);**

**back\_button(PAINT);**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,4);**

**outtextxy(110,10,"NAME:");**

**outtextxy(260,10,nowfield);**

**mode = 0 ;**

**k = 0;**

**break;**

**}**

**}**

**handmode\_flag = 1;**

**delay(200);**

**}**

**}**

**}**

**void auto\_simulate(int record[21][26], char \*date\_char ,char \*username , char \*nowfield , int automode ,struct droneinfo dronerecord[5],struct pesticideinfo pestrecord[3])**

**{**

**int date ,i,j,k, add = 1 , flag = 0 , startlight = 0 , pauselight = 0 ,random\_weather;**

**long long int timecount ;**

**int num[10] , record\_fly[21][26];**

**char date\_temp[10];**

**char weather[10];**

**int housenumber , fly\_housenumber , houserecord[5][2];**

**struct droneinfo drone[4];**

**Point houserecord\_xy[5];**

**House house[5];**

**char save[30][20];**

**char save2[30][20];**

**static running\_time = 0;**

**char path[40] = "c:\\DATA\\LOG\\";**

**char now\_path[40];**

**char ceshi[100];**

**int all\_date = 0;**

**FILE\*fp;**

**memset(save,0,sizeof(save));**

**memset(save2,0,sizeof(save2));**

**memset(houserecord,0,sizeof(houserecord));**

**memset(date\_temp,0,sizeof(date\_temp));**

**memset(num,0,sizeof(num));**

**memset(house,0,sizeof(house));**

**date = atoi( date\_char );//从date天开始**

**if(date != 1) {**

**grow(record , date );**

**}**

**// srand((unsigned)time(NULL));**

**mouseinit();**

**// housenumber = find\_house\_number( record );**

**// find\_house( record , houserecord );**

**// find\_house\_xy(record , houserecord\_xy);**

**k = 0 ;**

**for(i=0;i<21;i++)//y**

**{**

**for(j=0;j<26;j++)//x**

**{**

**if(record[i][j]>=3 && record[i][j] <= 6 )**

**{**

**house[k].record = record[i][j] ;**

**house[k].i = i ;**

**house[k].j = j ;**

**house[k].drone\_index = k ;**

**k++ ;**

**}**

**}**

**}**

**// for(i=0;i<k;i++)**

**// {**

**// itoa(house[i].record,ceshi,10);**

**// settextstyle(DEFAULT\_FONT,HORIZ\_DIR,1);**

**// outtextxy(200,50+i\*20,ceshi);**

**// itoa(house[i].i,ceshi,10);**

**// outtextxy(250,50+i\*20,ceshi);**

**// itoa(house[i].j,ceshi,10);**

**// outtextxy(300,50+i\*20,ceshi);**

**// itoa(house[i].drone\_index,ceshi,10);**

**// outtextxy(350,50+i\*20,ceshi);**

**// }**

**while(1)**

**{**

**newmouse(&MouseX,&MouseY,&press);**

**if(timecount%600000 == 0)**

**{**

**itoa(date , date\_temp , 10);**

**put\_calender\_number(date\_temp);**

**random\_weather = rand() % 100 ;**

**memset(weather,0,sizeof(weather));**

**if(random\_weather <= 20 ) {**

**strcpy(weather,"SUN");**

**}**

**else if(random\_weather >20 && random\_weather <= 40 ) {**

**strcpy(weather,"RAIN");**

**}**

**else if(random\_weather > 40 && random\_weather <=50 ) {**

**strcpy(weather,"SNOW");**

**}**

**else {**

**strcpy(weather,"CLOUD");**

**}**

**put\_calender\_weather(weather);**

**grow\_oneday(record,date);**

**if(date % 3 == 0) //侦测天数**

**{**

**// setcolor(DARKGRAY);**

**// settextstyle(DEFAULT\_FONT,HORIZ\_DIR,1);**

**// outtextxy(20,440,"DETECTING");**

**// fly\_detect( record , find\_closest\_house(record) );**

**// setfillstyle(SOLID\_FILL,WHITE);**

**// bar(20,440,95,480);**

**// setcolor(DARKGRAY);**

**// settextstyle(DEFAULT\_FONT,HORIZ\_DIR,1);**

**// outtextxy(20,440,"SPRAYING");**

**if(automode == 1 ) {**

**fly\_one\_round(record,find\_closest\_house(record));**

**}**

**else if(automode == 2 ) {**

**fly\_housenumber = k ;**

**for(i=0;i<k;i++)**

**{**

**if( strlen(dronerecord[house[i].drone\_index].name)==0 || strcmp(dronerecord[house[i].drone\_index].weather , weather )==0 ) //不能飞或者该房子没有无人机**

**{**

**record[house[i].i][house[i].j] = 1 ;**

**fly\_housenumber-- ;**

**}**

**}**

**// itoa(fly\_housenumber,ceshi,10);**

**// outtextxy(200,100,ceshi);**

**// fly\_spray(record , fly\_housenumber);**

**// bar(200,100,225,125);**

**for(i=0;i<k;i++){**

**record[house[i].i][house[i].j] = house[i].record ;**

**}**

**running\_time++;**

**strcpy(now\_path,path);**

**strcat(now\_path,"at");**

**strcat(now\_path,".txt");**

**itoa(all\_date,ceshi,10);**

**if((fp = fopen(now\_path,"a+"))!=NULL);**

**{**

**itoa(fly\_housenumber,ceshi,10);**

**fprintf(fp,"today drone:%s\n",ceshi);**

**fprintf(fp,"today weather:%s\n",weather);**

**}**

**fclose(fp);**

**}**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(20,440,95,480);**

**}**

**timecount = 0;**

**date++ ;**

**all\_date++;**

**}**

**if(mouse\_press(100,100,200,200)==1)**

**{**

**cleardevice();**

**if((fp=fopen(now\_path,"r+"))!=NULL)**

**{**

**for(i=0;i<10;i++)**

**{**

**fscanf(fp,"today drone:%s\n",save[i]);**

**scanf(fp,"today weather:%s\n",save2[i]);**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,1);**

**outtextxy(50,10+i\*20,save[i]);**

**outtextxy(100,10+i\*20,save2[i]);**

**}**

**}**

**while(1)**

**{**

**}**

**}**

**if( mouse\_press(5,180,95,219)==2 )//start未点击**

**{**

**if(startlight == 0)**

**{**

**if( flag != 1 )**

**{**

**MouseS = 1 ;**

**flag = 1 ;**

**num[1] = 1;**

**clrmous(MouseX,MouseY);**

**start\_button(LIGHT);**

**}**

**}**

**}**

**else if( mouse\_press(5,180,95,219)==1 )//start点击5,180,95,219**

**{**

**MouseS = 0;**

**clrmous(MouseX,MouseY);**

**startlight = 1;**

**if(pauselight == 1)**

**{**

**pauselight = 0 ;**

**pause\_button(RECOVER);**

**}**

**delay(50);**

**}**

**else if( mouse\_press(5,230,95,269)==2 )//pause未点击**

**{**

**if(pauselight == 0)**

**{**

**if( flag != 2 )**

**{**

**MouseS = 1 ;**

**flag = 2 ;**

**num[2] = 1;**

**clrmous(MouseX,MouseY);**

**pause\_button(LIGHT);**

**}**

**}**

**}**

**else if( mouse\_press(5,230,95,269)==1 )//pause点击**

**{**

**MouseS = 0;**

**clrmous(MouseX,MouseY);**

**pauselight = 1 ;**

**if(startlight == 1) {**

**startlight = 0 ;**

**start\_button(RECOVER);**

**}**

**delay(50);**

**}**

**else if( mouse\_press(5,130,95,169)==1 )//mode点击**

**{**

**MouseS = 0;**

**clrmous(MouseX,MouseY);**

**itoa(date,date\_char,10);**

**delay(200);**

**return ;**

**}**

**else if( mouse\_press(15,20,90,60)==1 ) //日历数字点击**

**{**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(11,25,90,69);**

**temp\_input(date\_temp , 18,35, 3 , 22 ,20,WHITE,3);//4 33 25**

**put\_calender\_number(date\_temp);**

**if( date+1 == atoi( date\_temp ) ) {**

**date = date+1 ;**

**random\_weather = rand() % 100 ;**

**memset(weather,0,sizeof(weather));**

**if(random\_weather <= 20 ) {**

**strcpy(weather,"SUN");**

**}**

**else if(random\_weather >20 && random\_weather <= 40 ) {**

**strcpy(weather,"RAIN");**

**}**

**else if(random\_weather > 40 && random\_weather <=50 ) {**

**strcpy(weather,"SNOW");**

**}**

**else {**

**strcpy(weather,"CLOUD");**

**}**

**put\_calender\_weather(weather);**

**grow\_oneday(record,date);**

**}**

**else {**

**recover\_field(record,username,nowfield);**

**date = atoi(date\_temp);**

**random\_weather = rand() % 100 ;**

**memset(weather,0,sizeof(weather));**

**if(random\_weather <= 20 ) {**

**strcpy(weather,"SUN");**

**}**

**else if(random\_weather >20 && random\_weather <= 40 ) {**

**strcpy(weather,"RAIN");**

**}**

**else if(random\_weather > 40 && random\_weather <=50 ) {**

**strcpy(weather,"SNOW");**

**}**

**else {**

**strcpy(weather,"CLOUD");**

**}**

**put\_calender\_weather(weather);**

**grow(record , date );**

**}**

**}**

**else if( mouse\_press(595,5,630,40)==2 )//退出键未点击**

**{**

**if( pauselight == 1 )**

**{**

**if(flag!=3)**

**{**

**MouseS = 1 ;**

**flag = 3 ;**

**num[3] = 1;**

**clrmous(MouseX,MouseY);**

**back\_button(LIGHT);**

**}**

**}**

**}**

**else if( mouse\_press(595,5,630,40)==1 )//退出点击**

**{**

**MouseS = 0 ;**

**clrmous(MouseX,MouseY);**

**itoa(date,date\_char,10);**

**delay(200);**

**return ;**

**}**

**else**

**{**

**if(flag!=0)**

**{**

**MouseS = 0;**

**flag = 0;**

**}**

**}**

**if( flag!=1 && num[1]==1 )**

**{**

**num[1]=0;**

**if(startlight!=1) {**

**clrmous(MouseX,MouseY);**

**start\_button(RECOVER);**

**}**

**}**

**else if( flag!=2 && num[2]==1 )**

**{**

**num[2]=0;**

**if(pauselight != 1) {**

**clrmous(MouseX,MouseY);**

**pause\_button(RECOVER);**

**}**

**}**

**else if( flag!=3 && num[3]==1 )**

**{**

**clrmous(MouseX,MouseY);**

**back\_button(RECOVER);**

**num[3]=0;**

**}**

**if(startlight) timecount++ ;**

**if(date > CALENDER\_MAX) {**

**itoa(date,date\_char,10);**

**return ;**

**}**

**}**

**return ;**

**}**

**void show\_chart(int record[21][26],char\* now\_field)**

**{**

**int i,j;**

**int flag = 0;**

**double height[20];**

**char \*strheight[20];**

**double sum[5];**

**double crop1\_sprout = 0,crop1\_transition = 0,crop1\_crop = 0;**

**double crop2\_sprout = 0,crop2\_transition = 0,crop2\_crop = 0;**

**double crop3\_sprout = 0,crop3\_transition = 0,crop3\_crop = 0;**

**double crop1\_sick = 0, crop1\_healthy = 0;**

**double crop2\_sick = 0, crop2\_healthy = 0;**

**double crop3\_sick = 0, crop3\_healthy = 0;**

**double locust = 0,ladybug = 10;**

**double field = 0,water = 0;**

**for(i=0;i<21;i++)**

**{**

**for(j=0;j<26;j++)**

**{**

**if(record[i][j]>=10&&record[i][j]<=19) crop1\_sprout++;**

**else if(record[i][j]>=20&&record[i][j]<=29) crop1\_transition++;**

**else if(record[i][j]>=30&&record[i][j]<=39) crop1\_crop++;**

**else if(record[i][j]>=40&&record[i][j]<=49) crop2\_sprout++;**

**else if(record[i][j]>=50&&record[i][j]<=59) crop2\_transition++;**

**else if(record[i][j]>=60&&record[i][j]<=69) crop2\_crop++;**

**else if(record[i][j]>=70&&record[i][j]<=79) crop3\_sprout++;**

**else if(record[i][j]>=80&&record[i][j]<=89) crop3\_transition++;**

**else if(record[i][j]>=90&&record[i][j]<=99) crop3\_crop++;**

**if((record[i][j]>=10&&record[i][j]<=39)&&record[i][j]%10!=0) crop1\_sick++;**

**else if((record[i][j]>=10&&record[i][j]<=39)&&record[i][j]%10==0) crop1\_healthy++;**

**else if((record[i][j]>=40&&record[i][j]<=69)&&record[i][j]%10!=0) crop2\_sick++;**

**else if((record[i][j]>=40&&record[i][j]<=69)&&record[i][j]%10==0) crop2\_healthy++;**

**else if((record[i][j]>=70&&record[i][j]<=99)&&record[i][j]%10!=0) crop3\_sick++;**

**else if((record[i][j]>=70&&record[i][j]<=99)&&record[i][j]%10==0) crop3\_healthy++;**

**if((record[i][j]>=10&&record[i][j]<=99)&&((record[i][j]%10)>=1&&(record[i][j]%10)<=BUG)) locust++;**

**else if((record[i][j]>=10&&record[i][j]<=99)&&((record[i][j]%10)>BUG&&(record[i][j]%10)<=9)) ladybug++;**

**if(record[i][j]!=2&&record[i][j]!=0) field++;**

**else if(record[i][j]==2) water++;**

**}**

**}**

**memset(height,0,sizeof(height));**

**memset(sum,0,sizeof(sum));**

**memset(strheight,0,sizeof(strheight));**

**sum[0] = (crop1\_sprout + crop1\_transition + crop1\_crop + crop2\_sprout + crop2\_transition + crop2\_crop + crop3\_sprout + crop3\_transition + crop3\_crop);**

**sum[1] = (locust+ladybug);**

**sum[2] = (field+water);**

**if(sum[0]!=0)**

**{**

**height[0] = (crop1\_sprout/sum[0])\*100;**

**height[1] = (crop1\_transition/sum[0])\*100;**

**height[2] = (crop1\_crop/sum[0])\*100;**

**height[3] = (crop2\_sprout/sum[0])\*100;**

**height[4] = (crop2\_transition/sum[0])\*100;**

**height[5] = (crop2\_crop/sum[0])\*100;**

**height[6] = (crop3\_sprout/sum[0])\*100;**

**height[7] = (crop3\_transition/sum[0])\*100;**

**height[8] = (crop3\_crop/sum[0])\*100;**

**height[9] = (crop1\_healthy/sum[0]\*100);**

**height[10] = (crop1\_sick/sum[0]\*100);**

**height[11] = (crop2\_healthy/sum[0]\*100);**

**height[12] = (crop2\_sick/sum[0]\*100);**

**height[13] = (crop3\_healthy/sum[0]\*100);**

**height[14] = (crop3\_sick/sum[0]\*100);**

**}**

**if(sum[1]!=0)**

**{**

**height[15] = (locust/sum[1])\*100;**

**height[16] = (ladybug/sum[1])\*100;**

**}**

**if(sum[2]!=0)**

**{**

**height[17] = (field/sum[2])\*100;**

**height[18] = (water/sum[2])\*100;**

**}**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(105,0,640,480);**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,1);**

**outtextxy(427,210,"RICE");**

**outtextxy(494,210,"CORN");**

**outtextxy(557,210,"CANE");**

**outtextxy(545,42,"SPROUT");**

**outtextxy(545,52,"TRANSITION");**

**outtextxy(545,62,"CROP");**

**outtextxy(173,210,"LOCUST");**

**outtextxy(250,210,"LADYBUG");**

**outtextxy(295,292,"HEALTHY");**

**outtextxy(295,302,"SICK");**

**outtextxy(160,450,"RICE");**

**outtextxy(220,450,"CORN");**

**outtextxy(280,450,"CANE");**

**outtextxy(455,450,"FIELD");**

**outtextxy(515,450,"WATER");**

**setfillstyle(SOLID\_FILL,RED);**

**bar(530,40,540,50);**

**bar(420,200-(int)(height[0]\*1.5),435,200);**

**bar(485,200-(int)(height[3]\*1.5),500,200);**

**bar(550,200-(int)(height[6]\*1.5),565,200);**

**setfillstyle(SOLID\_FILL,BLUE);**

**bar(530,51,540,60);**

**bar(436,200-(int)(height[1]\*1.5),450,200);**

**bar(501,200-(int)(height[4]\*1.5),515,200);**

**bar(566,200-(int)(height[7]\*1.5),580,200);**

**setfillstyle(SOLID\_FILL,LIGHTGREEN);**

**bar(530,61,540,70);**

**bar(451,200-(int)(height[3]\*1.5),465,200);**

**bar(516,200-(int)(height[5]\*1.5),530,200);**

**bar(581,200-(int)(height[8]\*1.5),595,200);**

**setfillstyle(SOLID\_FILL,CYAN);**

**bar(190,200-(int)(height[15]\*1.5),205,200);**

**bar(270,200-(int)(height[16]\*1.5),285,200);**

**setfillstyle(SOLID\_FILL,MAGENTA);**

**bar(280,290,290,300);**

**bar(160,440-(int)(height[9]\*1.5),175,440);**

**bar(220,440-(int)(height[11]\*1.5),235,440);**

**bar(280,440-(int)(height[13]\*1.5),295,440);**

**setfillstyle(SOLID\_FILL,LIGHTBLUE);**

**bar(280,301,290,310);**

**bar(176,440-(int)(height[10]\*1.5),190,440);**

**bar(236,440-(int)(height[12]\*1.5),250,440);**

**bar(296,440-(int)(height[14]\*1.5),310,440);**

**setfillstyle(SOLID\_FILL,GREEN);**

**bar(455,440-(int)(height[17]\*1.5),470,440);**

**setfillstyle(SOLID\_FILL,BLUE);**

**bar(515,440-(int)(height[18]\*1.5),530,440);**

**setcolor(DARKGRAY);**

**setlinestyle(SOLID\_LINE,0,THICK\_WIDTH);**

**line(130,50,140,50);**

**line(130,125,140,125);**

**line(395,50,405,50);**

**line(395,125,405,125);**

**line(130,290,140,290);**

**line(130,365,140,365);**

**line(395,290,405,290);**

**line(395,365,405,365);**

**line(130,200,355,200);**

**line(130,200,130,40);**

**line(395,200,620,200);**

**line(395,200,395,40);**

**line(130,440,355,440);**

**line(130,440,130,280);**

**line(395,440,620,440);**

**line(395,440,395,280);**

**line(355,200,345,197);**

**line(355,200,345,203);**

**line(133,50,130,40);**

**line(127,50,130,40);**

**line(610,203,620,200);**

**line(610,197,620,200);**

**line(392,50,395,40);**

**line(398,50,395,40);**

**line(345,437,355,440);**

**line(345,443,355,440);**

**line(133,290,130,280);**

**line(127,290,130,280);**

**line(610,443,620,440);**

**line(610,437,620,440);**

**line(398,290,395,280);**

**line(392,290,395,280);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,1);**

**outtextxy(200,20,"PEST RATE");**

**outtextxy(435,20,"CROP SITUATION RATE");**

**outtextxy(185,260,"SICK CROP RATE");**

**outtextxy(455,260,"FIELD RATE");**

**mouseinit();**

**while(1)**

**{**

**newmouse(&MouseX,&MouseY,&press);**

**if(mouse\_press(5,280,95,319)==2)**

**{**

**if(flag!=1)**

**{**

**MouseS = 1;**

**flag = 1;**

**}**

**}**

**else if(mouse\_press(5,280,95,319)==1)**

**{**

**return;**

**}**

**else**

**{**

**if(flag!=0)**

**{**

**MouseS = 0;**

**flag = 0;**

**}**

**}**

**}**

**}**

**/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*detectf.c\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/**

**#include "public.h"**

**#include "detectf.h"**

**void change\_weather(char \*weather)**

**{**

**int random\_weather ;**

**// srand((unsigned)time(NULL));**

**random\_weather = rand() % 100 ;**

**// time\_t t;**

**// time(&t);**

**// weather = (int)t ;**

**if(random\_weather <= 20 ) {**

**strcpy(weather,"SUN");**

**}**

**else if(random\_weather >20 && random\_weather <= 40 ) {**

**strcpy(weather,"RAIN");**

**}**

**else if(random\_weather > 40 && random\_weather <=50 ) {**

**strcpy(weather,"SNOW");**

**}**

**else {**

**strcpy(weather,"CLOUD");**

**}**

**return ;**

**}**

**void recover\_field(int record[21][26],char \*username , char \*nowfield )**

**{**

**int i,j ;**

**char path[100]="C:\\DATA\\";**

**FILE \*fp;**

**strcat(path,username);**

**strcat(path,"\\FIELD\\");**

**strcat(path,nowfield);**

**if ( (fp = fopen(path,"rb")) != NULL )**

**{**

**for(i=0; i<21 ;i++ )**

**{**

**fread( record[i],sizeof(int), 26 ,fp);**

**}**

**}**

**else**

**{**

**// perror("error in opening fieldfile!");**

**}**

**fclose(fp);**

**}**

**void grow(int record[21][26] , int date ) //reord从最初始状态，直接计算date状态时现象**

**{**

**int i,j,k,x,y,random\_grow, random\_health , state , health ,crop;**

**// srand((unsigned)time(NULL));**

**for(i=0;i<21;i++)//y**

**{**

**for(j=0;j<26;j++)//x**

**{**

**x = 110 + j\*20 ;**

**y = 470-i\*20-20 ;**

**if ( record[i][j]==1 )**

**{**

**setfillstyle(SOLID\_FILL,DARKGRAY);**

**bar(x , y , x+20 , y+20 );**

**}**

**else if( record[i][j]==2)**

**{**

**setfillstyle(SOLID\_FILL,LIGHTBLUE);**

**bar(x , y,x+20, y+20);**

**}**

**if((record[i][j]>=10 && record[i][j]<=39)) //crop1 / 12 24**

**{**

**crop = 1 ;**

**state = SPROUT ;**

**health = HEALTHY ;**

**random\_grow = rand() % 100 ;//0-99**

**if(date >= CROP1\_STATE1 ) {**

**if(random\_grow <= 90) {**

**state = TRANSITION ;**

**}**

**}**

**if(date >= CROP1\_STATE2 ) {**

**random\_grow = rand() % 100 ;**

**if(state == TRANSITION && random\_grow <= 90) {**

**state = CROP ;**

**}**

**}**

**random\_health = rand() % 100 ;**

**if(random\_health <= 20) health = SICK ;**

**else health = HEALTHY ;**

**if(date == 1) health = HEALTHY ;**

**put\_crop1(x,y,state , health);**

**}**

**else if(record[i][j]>=40 && record[i][j]<=69) //crop2 / 10 20**

**{**

**crop = 2 ;**

**state = SPROUT ;**

**health = HEALTHY ;**

**random\_grow = rand() % 100 ;//0-99**

**if(date >= CROP2\_STATE1 ) {**

**if(random\_grow <= 90) {**

**state = TRANSITION ;**

**}**

**}**

**if(date >= CROP2\_STATE2 ) {**

**random\_grow = rand() % 100 ;**

**if(state == TRANSITION && random\_grow <= 90) {**

**state = CROP ;**

**}**

**}**

**random\_health = rand() % 100 ;**

**if(random\_health <= 20) health = SICK ;**

**else health = HEALTHY ;**

**if(date == 1) health = HEALTHY ;**

**put\_crop2(x,y,state , health);**

**}**

**else if(record[i][j]>=70 && record[i][j]<=99) //crop3 / 14 28**

**{**

**crop = 3 ;**

**state = SPROUT ;**

**health = HEALTHY ;**

**random\_grow = rand() % 100 ;//0-99**

**if(date >= CROP3\_STATE1 ) {**

**if(random\_grow <= 90) {**

**state = TRANSITION ;**

**}**

**}**

**if(date >= CROP3\_STATE2 ) {**

**random\_grow = rand() % 100 ;**

**if(state == TRANSITION && random\_grow <= 90) {**

**state = CROP ;**

**}**

**}**

**random\_health = rand() % 100 ;**

**if(random\_health <= 20) health = SICK ;**

**else health = HEALTHY ;**

**if(date == 1) health = HEALTHY ;**

**put\_crop3(x,y,state , health);**

**}**

**else if( record[i][j]==3 )**

**{**

**put\_house(x,y,BROWN,CYAN,2);**

**}**

**else if( record[i][j]==4 )**

**{**

**put\_house(x,y,BROWN,MAGENTA,2);**

**}**

**else if( record[i][j]==5 )**

**{**

**put\_house(x,y,BROWN,YELLOW,2);**

**}**

**else if( record[i][j]==6 )**

**{**

**put\_house(x,y,BROWN,BLUE,2);**

**}**

**}**

**}**

**}**

**void grow\_oneday(int record[21][26] ,int date)**

**{**

**int random\_sick ,random\_state ,health , state ,one\_place , ten\_place ,date\_one,date\_ten,crop = -1;**

**int i , j ,x,y;**

**char temp\_out[20];**

**// srand((unsigned)time(NULL));**

**setwritemode(COPY\_PUT);**

**if(date == 1 ) return ;**

**for(i=0;i<21;i++)//y**

**{**

**for(j=0;j<26;j++) //x**

**{**

**if(record[i][j] < 10 ) continue ;**

**x = 110 + j\*20 ;**

**y = 450 - i\*20 ;**

**one\_place = record[i][j] % 10 ;**

**ten\_place = record[i][j] / 10 ;**

**date\_one = date % 10 ;**

**date\_ten = date / 10 ;**

**health = HEALTHY ;**

**state = SPROUT ;**

**random\_sick = rand() % 100 ;**

**if(record[i][j] >= 10 )**

**{**

**if(one\_place == 0 )**

**{**

**if(random\_sick <= 5 ) {**

**record[i][j] += 3;**

**health = SICK ;**

**}**

**}**

**else if(one\_place != 0 ) {**

**health = SICK ;**

**}**

**}**

**crop = -1 ;**

**if( record[i][j]>=10 && record[i][j]<=39 ){**

**crop = 1 ;**

**if(record[i][j]>=10 && record[i][j]<=19 ) {**

**state = SPROUT ;**

**}**

**else if(record[i][j]>=20 && record[i][j]<=29 ) {**

**state = TRANSITION ;**

**}**

**else if(record[i][j]>=30 && record[i][j]<=39 ) {**

**state = CROP ;**

**}**

**}**

**else if( record[i][j]>=40 && record[i][j]<=69 ){**

**crop = 2 ;**

**if(record[i][j]>=40 && record[i][j]<=49 ) {**

**state = SPROUT ;**

**}**

**else if(record[i][j]>=50 && record[i][j]<=59 ) {**

**state = TRANSITION ;**

**}**

**else if(record[i][j]>=60 && record[i][j]<=69 ) {**

**state = CROP ;**

**}**

**}**

**else if( record[i][j]>=70 && record[i][j]<=99 ){**

**crop = 3 ;**

**if(record[i][j]>=70 && record[i][j]<=79 ) {**

**state = SPROUT ;**

**}**

**else if(record[i][j]>=80 && record[i][j]<=89 ) {**

**state = TRANSITION ;**

**}**

**else if(record[i][j]>=90 && record[i][j]<=99 ) {**

**state = CROP ;**

**}**

**}**

**random\_state = rand() % 100 ;**

**if(date >= CROP1\_STATE1-3 && date <= CROP1\_STATE1+3 && ten\_place == 1 ) {**

**crop = 1 ;**

**state = SPROUT ;**

**if(random\_state <= 90 && record[i][j] <= 20 ) {**

**state = TRANSITION ;**

**record[i][j]+=10 ;**

**}**

**}**

**else if(date >= CROP1\_STATE2-3 && date <= CROP1\_STATE2+3 && ten\_place==2 ) {**

**crop = 1 ;**

**state = TRANSITION ;**

**if(random\_state <= 90 && record[i][j] <= 30 ) {**

**state = CROP ;**

**record[i][j]+=10 ;**

**}**

**}**

**else if(date >= CROP2\_STATE1-3 && date <= CROP2\_STATE1+3 && ten\_place==4 ) {**

**crop = 2 ;**

**state = SPROUT ;**

**if(random\_state <= 90 && record[i][j] <= 40 ) {**

**state = TRANSITION ;**

**record[i][j]+=10 ;**

**}**

**}**

**else if(date >= CROP2\_STATE2-3 && date <= CROP2\_STATE2+3 && ten\_place==5 ) {**

**crop = 2 ;**

**state = TRANSITION ;**

**if(random\_state <= 90 && record[i][j] <= 60 ) {**

**state = CROP ;**

**record[i][j]+=10 ;**

**}**

**}**

**else if(date >= CROP3\_STATE1-3 && date <= CROP3\_STATE1+3 && ten\_place==7 ) {**

**crop = 3 ;**

**state = SPROUT ;**

**if(random\_state <= 90 && record[i][j] <= 80 ) {**

**state = TRANSITION ;**

**record[i][j]+=10 ;**

**}**

**}**

**else if(date >= CROP3\_STATE2-3 && date <= CROP3\_STATE2+3 && ten\_place==8 ) {**

**crop = 3 ;**

**state = TRANSITION ;**

**if(random\_state <= 90 && record[i][j] <= 90 ) {**

**state = CROP ;**

**record[i][j]+=10 ;**

**}**

**}**

**// setlinestyle(SOLID\_LINE,0,NORM\_WIDTH);**

**// setcolor(RED);**

**// line(x,y+20,x+20,y+20);**

**setfillstyle(SOLID\_FILL,DARKGRAY);**

**bar(x,y,x+20,y+20);**

**if(crop == 1 )**

**{**

**put\_crop1(x,y,state,health);**

**}**

**else if(crop == 2)**

**{**

**put\_crop2(x,y,state,health);**

**}**

**else if(crop == 3 )**

**{**

**put\_crop3(x,y,state,health);**

**}**

**}**

**}**

**}**

**void find\_house(int record[21][26] , int houserecord[5][2])**

**{**

**int i,j,k ;**

**k = 0 ;**

**for(i=0;i<21;i++)//y**

**{**

**for(j=0;j<26;j++)//x**

**{**

**if( record[i][j]==3 )**

**{**

**houserecord[k][0] = i ;**

**houserecord[k][1] = j ;**

**k++ ;**

**}**

**else if( record[i][j]==4 )**

**{**

**houserecord[k][0] = i ;**

**houserecord[k][1] = j ;**

**k++ ;**

**}**

**else if( record[i][j]==5 )**

**{**

**houserecord[k][0] = i ;**

**houserecord[k][1] = j ;**

**k++ ;**

**}**

**else if( record[i][j]==6 )**

**{**

**houserecord[k][0] = i ;**

**houserecord[k][1] = j ;**

**k++ ;**

**}**

**if( k >= 4 ) return ;**

**}**

**}**

**}**

**void find\_house\_xy(int record[21][26] , Point houserecord[5])**

**{**

**int i,j,k ,x,y;**

**k = 0 ;**

**for(i=0;i<21;i++)//y**

**{**

**for(j=0;j<26;j++)//x**

**{**

**if( record[i][j]==3 )**

**{**

**x = 110 + j\*20 ;**

**y = 450 - i\*20 ;**

**houserecord[k].x = x ;**

**houserecord[k].y = y ;**

**k++ ;**

**}**

**else if( record[i][j]==4 )**

**{**

**x = 110 + j\*20 ;**

**y = 450 - i\*20 ;**

**houserecord[k].x = x ;**

**houserecord[k].y = y ;**

**k++ ;**

**}**

**else if( record[i][j]==5 )**

**{**

**x = 110 + j\*20 ;**

**y = 450 - i\*20 ;**

**houserecord[k].x = x ;**

**houserecord[k].y = y ;**

**k++ ;**

**}**

**else if( record[i][j]==6 )**

**{**

**x = 110 + j\*20 ;**

**y = 450 - i\*20 ;**

**houserecord[k].x = x ;**

**houserecord[k].y = y ;**

**k++ ;**

**}**

**if( k >= 4 ) return ;**

**}**

**}**

**}**

**int find\_house\_number(int record[21][26] )**

**{**

**int i,j,k ;**

**k = 0 ;**

**for(i=0;i<21;i++)//y**

**{**

**for(j=0;j<26;j++)//x**

**{**

**if( record[i][j]==3 )**

**{**

**k++ ;**

**}**

**else if( record[i][j]==4 )**

**{**

**k++ ;**

**}**

**else if( record[i][j]==5 )**

**{**

**k++ ;**

**}**

**else if( record[i][j]==6 )**

**{**

**k++ ;**

**}**

**if( k >= 4 ) return k;**

**}**

**}**

**return k ;**

**}**

**Point find\_closest\_house(int record[21][26])**

**{**

**Point house ;**

**int i,j,crop\_i = -1, crop\_j = -1;**

**float dis = MAX ,temp\_dis;**

**for(i=0;i<21;i++)//y**

**{**

**for(j=0;j<26;j++)//x**

**{**

**if(record[i][j]>=10 && crop\_i == -1) //左下角第一个植株**

**{**

**crop\_i = i ;**

**crop\_j = j ;**

**j=0;**

**}**

**else if( record[i][j]>=3 && record[i][j]<=6 )**

**{**

**temp\_dis = sqrt(fabs((i-crop\_i)\*(i-crop\_i)+(j-crop\_j)\*(j-crop\_j))) ;**

**if( temp\_dis < dis ) {**

**dis = temp\_dis ;**

**house.x = 110 + j\*20 ;**

**house.y = 450-i\*20 ;**

**}**

**}**

**}**

**}**

**return house ;**

**}**

**void setinfo(char \*username,struct droneinfo dronerecord[5],struct pesticideinfo pestrecord[3],int setting[2])**

**{**

**int i;**

**int flag = 0 , avaliable = 1 ;**

**char string[80] = "c:\\DATA";**

**char stringnow[80];**

**FILE\* fp;**

**clrmous(MouseX,MouseY);**

**setfillstyle(SOLID\_FILL,BLUE);**

**bar(100+10,100,540+10,400);**

**setfillstyle(SOLID\_FILL,LIGHTBLUE);**

**bar(100+10,100,540+10,105);**

**bar(100+10,100,105+10,400);//115 120**

**bar(100+10,395,540+10,400);**

**bar(535+10,100,540+10,400);**

**bar(260+10,100,265+10,400);//275 280**

**for(i=0;i<5;i++)**

**{**

**bar(100+10,100+50\*(i+1),540+10,105+50\*(i+1));**

**}**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,3);**

**outtextxy(110+10,120,"HOUSE1");**

**outtextxy(110+10,170,"HOUSE2");**

**outtextxy(110+10,220,"HOUSE3");**

**outtextxy(110+10,270,"HOUSE4");**

**outtextxy(110+10,320,"PEST1");**

**outtextxy(110+10,370,"PEST2");**

**strcat(string,"\\");**

**strcat(string,username);**

**strcat(string,"\\");**

**i = 0 ;**

**for(i=0;i<=3;i++)**

**{**

**if(sizeof(dronerecord[i])!=0) {**

**outtextxy(290,120+i\*50,dronerecord[i].name);**

**setting[0] = 1 ;**

**}**

**}**

**for(i=0;i<=1;i++)**

**{**

**if(sizeof(pestrecord[i])!=0) {**

**outtextxy(290,120+(i+4)\*50,pestrecord[i].name);**

**setting[1] = 1 ;**

**}**

**}**

**while(1)**

**{**

**newmouse(&MouseX,&MouseY,&press);**

**if(mouse\_press(270+10,105,535+10,150)==2)**

**{**

**if(flag!=1)**

**{**

**MouseS = 2;**

**flag = 1;**

**}**

**}**

**else if(mouse\_press(270+10,105,535+10,150)==1)**

**{**

**temp\_input(dronerecord[0].name,280+10,119,5,25,20,BLUE,3);**

**strcpy(stringnow,string);**

**strcat(stringnow,"DRONE\\");**

**strcat(stringnow,dronerecord[0].name);**

**strcat(stringnow,".dat");**

**if((fp=fopen(stringnow,"rb"))!=NULL)**

**{**

**avaliable = 1;**

**for(i=0;i<4;i++)**

**{**

**if(sizeof(dronerecord[i])!=0) {**

**if(i == 0 ) continue ;**

**if(strcmp(dronerecord[i].name , dronerecord[0].name)==0) {**

**avaliable = 0 ;**

**}**

**}**

**}**

**if(avaliable == 1 ) {**

**fread(&dronerecord[0],sizeof(DRONEINFO),1,fp);**

**}**

**else {**

**warning("REPEAT!",280,255,1);**

**delay(100);**

**setfillstyle(SOLID\_FILL,BLUE);**

**bar(280+10,110,525+10,140);**

**memset(dronerecord[0].name,0,sizeof(dronerecord[0].name));**

**}**

**}**

**else**

**{**

**warning("NOT EXIST!",280,255,1);**

**delay(100);**

**setfillstyle(SOLID\_FILL,BLUE);**

**bar(280+10,110,525+10,140);**

**memset(dronerecord[0].name,0,sizeof(dronerecord[0].name));**

**}**

**}**

**else if(mouse\_press(270+10,155,535+10,200)==2)**

**{**

**if(flag!=2)**

**{**

**MouseS = 2;**

**flag = 2;**

**}**

**}**

**else if(mouse\_press(270+10,155,535+10,200)==1)**

**{**

**temp\_input(dronerecord[1].name,280+10,169,5,25,20,BLUE,3);**

**strcpy(stringnow,string);**

**strcat(stringnow,"DRONE\\");**

**strcat(stringnow,dronerecord[1].name);**

**strcat(stringnow,".dat");**

**if((fp=fopen(stringnow,"rb"))!=NULL)**

**{**

**avaliable = 1;**

**for(i=0;i<4;i++)**

**{**

**if(sizeof(dronerecord[i])!=0) {**

**if(i == 1 ) continue ;**

**if(strcmp(dronerecord[i].name , dronerecord[1].name)==0) {**

**avaliable = 0 ;**

**}**

**}**

**}**

**if(avaliable == 1 ) {**

**fread(&dronerecord[1],sizeof(DRONEINFO),1,fp);**

**}**

**else {**

**warning("REPEAT!",280,255,1);**

**delay(100);**

**setfillstyle(SOLID\_FILL,BLUE);**

**bar(290,165,535,190);**

**memset(dronerecord[1].name,0,sizeof(dronerecord[1].name));**

**}**

**}**

**else**

**{**

**warning("NOT EXIST!",280,255,1);**

**delay(100);**

**setfillstyle(SOLID\_FILL,BLUE);**

**bar(290,165,535,190);**

**memset(dronerecord[1].name,0,sizeof(dronerecord[1].name));**

**}**

**}**

**else if(mouse\_press(270+10,205,535+10,250)==2)**

**{**

**if(flag!=3)**

**{**

**MouseS = 2;**

**flag = 3;**

**}**

**}**

**else if(mouse\_press(270+10,205,535+10,250)==1)**

**{**

**temp\_input(dronerecord[2].name,280+10,219,5,25,20,BLUE,3);**

**strcpy(stringnow,string);**

**strcat(stringnow,"DRONE\\");**

**strcat(stringnow,dronerecord[2].name);**

**strcat(stringnow,".dat");**

**if((fp=fopen(stringnow,"rb"))!=NULL)**

**{**

**avaliable = 1;**

**for(i=0;i<4;i++)**

**{**

**if(sizeof(dronerecord[i])!=0) {**

**if(i == 2 ) continue ;**

**if(strcmp(dronerecord[i].name , dronerecord[2].name)==0) {**

**avaliable = 0 ;**

**}**

**}**

**}**

**if(avaliable == 1 ) {**

**fread(&dronerecord[2],sizeof(DRONEINFO),1,fp);**

**}**

**else {**

**warning("REPEAT!",280,255,1);**

**delay(100);**

**setfillstyle(SOLID\_FILL,BLUE);**

**bar(290,215,535,240);**

**memset(dronerecord[2].name,0,sizeof(dronerecord[2].name));**

**}**

**}**

**else**

**{**

**warning("NOT EXIST!",280,255,1);**

**delay(100);**

**setfillstyle(SOLID\_FILL,BLUE);**

**bar(290,215,535,240);**

**memset(dronerecord[2].name,0,sizeof(dronerecord[2].name));**

**}**

**}**

**else if(mouse\_press(270+10,255,535+10,300)==2)**

**{**

**if(flag!=4)**

**{**

**MouseS = 2;**

**flag = 4;**

**}**

**}**

**else if(mouse\_press(270+10,255,535+10,300)==1)**

**{**

**temp\_input(dronerecord[3].name,280+10,269,5,25,20,BLUE,3);**

**strcpy(stringnow,string);**

**strcat(stringnow,"DRONE\\");**

**strcat(stringnow,dronerecord[3].name);**

**strcat(stringnow,".dat");**

**if((fp=fopen(stringnow,"rb"))!=NULL)**

**{**

**avaliable = 1;**

**for(i=0;i<4;i++)**

**{**

**if(sizeof(dronerecord[i])!=0) {**

**if(i == 3 ) continue ;**

**if(strcmp(dronerecord[i].name , dronerecord[3].name)==0) {**

**avaliable = 0 ;**

**}**

**}**

**}**

**if(avaliable == 1 ) {**

**fread(&dronerecord[3],sizeof(DRONEINFO),1,fp);**

**}**

**else {**

**warning("REPEAT!",280,255,1);**

**delay(100);**

**setfillstyle(SOLID\_FILL,BLUE);**

**bar(290,265,535,290);**

**memset(dronerecord[3].name,0,sizeof(dronerecord[3].name));**

**}**

**}**

**else**

**{**

**warning("NOT EXIST!",280,255,1);**

**delay(100);**

**setfillstyle(SOLID\_FILL,BLUE);**

**bar(290,265,535,290);**

**memset(dronerecord[3].name,0,sizeof(dronerecord[3].name));**

**}**

**}**

**else if(mouse\_press(270+10,305,535+10,350)==2)**

**{**

**if(flag!=5)**

**{**

**MouseS = 2;**

**flag = 5;**

**}**

**}**

**else if(mouse\_press(270+10,305,535+10,350)==1)**

**{**

**temp\_input(pestrecord[0].name,280+10,319,5,25,20,BLUE,3);**

**strcpy(stringnow,string);**

**strcat(stringnow,"PESTICID\\");**

**strcat(stringnow,pestrecord[0].name);**

**strcat(stringnow,".dat");**

**if((fp=fopen(stringnow,"rb"))!=NULL)**

**{**

**avaliable = 1;**

**for(i=0;i<2;i++)**

**{**

**if(sizeof(pestrecord[i])!=0) {**

**if(i == 0 ) continue ;**

**if(strcmp(pestrecord[i].name , pestrecord[0].name)==0) {**

**avaliable = 0 ;**

**}**

**}**

**}**

**if(avaliable == 1 ) {**

**fread(&pestrecord[0],sizeof(PESTICIDEINFO),1,fp);**

**if(strcmp(pestrecord[1].pest\_style,pestrecord[0].pest\_style)==0)**

**{**

**warning("STYLE REPEAT!",250,255,1);**

**setfillstyle(SOLID\_FILL,BLUE);**

**bar(290,315,535,340);**

**memset(pestrecord[0].name,0,sizeof(pestrecord[0].name));**

**}**

**}**

**else**

**{**

**warning("REPEAT!",280,255,1);**

**delay(100);**

**setfillstyle(SOLID\_FILL,BLUE);**

**bar(290,315,535,340);**

**memset(pestrecord[0].name,0,sizeof(pestrecord[0].name));**

**}**

**}**

**else**

**{**

**warning("NOT EXIST!",280,255,1);**

**delay(100);**

**setfillstyle(SOLID\_FILL,BLUE);**

**bar(290,315,535,340);**

**memset(pestrecord[0].name,0,sizeof(pestrecord[0].name));**

**}**

**}**

**else if(mouse\_press(270+10,355,535+10,400)==2)**

**{**

**if(flag!=5)**

**{**

**MouseS = 2;**

**flag = 5;**

**}**

**}**

**else if(mouse\_press(270+10,355,535+10,400)==1)**

**{**

**temp\_input(pestrecord[1].name,280+10,369,5,25,20,BLUE,3);**

**strcpy(stringnow,string);**

**strcat(stringnow,"PESTICID\\");**

**strcat(stringnow,pestrecord[1].name);**

**strcat(stringnow,".dat");**

**if((fp=fopen(stringnow,"rb"))!=NULL)**

**{**

**avaliable = 1;**

**for(i=0;i<2;i++)**

**{**

**if(sizeof(pestrecord[i])!=0)**

**{**

**if(i == 1 ) continue ;**

**if(strcmp(pestrecord[i].name , pestrecord[1].name)==0) {**

**avaliable = 0 ;**

**}**

**}**

**}**

**if(avaliable == 1 )**

**{**

**fread(&pestrecord[1],sizeof(PESTICIDEINFO),1,fp);**

**if(strcmp(pestrecord[1].pest\_style,pestrecord[0].pest\_style)==0)**

**{**

**warning("STYLE REPEAT!",250,255,1);**

**setfillstyle(SOLID\_FILL,BLUE);**

**bar(290,365,535,390);**

**memset(pestrecord[1].name,0,sizeof(pestrecord[1].name));**

**}**

**}**

**else**

**{**

**warning("REPEAT!",280,255,1);**

**delay(100);**

**setfillstyle(SOLID\_FILL,BLUE);**

**bar(290,365,535,390);**

**memset(pestrecord[1].name,0,sizeof(pestrecord[1].name));**

**}**

**}**

**else**

**{**

**warning("NOT EXIST!",280,255,1);**

**delay(100);**

**setfillstyle(SOLID\_FILL,BLUE);**

**bar(290,365,535,390);**

**memset(pestrecord[1].name,0,sizeof(pestrecord[1].name));**

**}**

**}**

**else if(mouse\_press(5,330,95,369)== 1) //set return**

**{**

**setting[0] = 0 ;**

**setting[1] = 0 ;**

**for(i=0;i<=3;i++)**

**{**

**if(sizeof(dronerecord[i])!=0)**

**{**

**setting[0] = 1 ;**

**}**

**}**

**for(i=0;i<=1;i++)**

**{**

**if(sizeof(pestrecord[i])!=0)**

**{**

**setting[1] = 1 ;**

**}**

**}**

**delay(100);**

**return ;**

**}**

**else**

**{**

**if(flag!=0)**

**{**

**flag = 0;**

**MouseS = 0;**

**}**

**}**

**}**

**}**

**/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*draw.c\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/**

**#include "public.h"**

**#include "draw.h"**

**void put\_pencil(int x,int y,int COLOR1,int COLOR2,int COLOR3,int pix)**

**{**

**printline(x,y,1,4,0,COLOR1,pix,0);**

**printline(x,y+pix,1,3,0,COLOR1,pix,0);**

**printline(x,y+2\*pix,1,2,0,COLOR1,pix,0);**

**printline(x,y+3\*pix,1,1,0,COLOR1,pix,0);**

**printline(x+3\*pix,y+pix,1,2,0,COLOR2,pix,0);**

**printline(x+2\*pix,y+2\*pix,1,4,0,COLOR2,pix,0);**

**printline(x+pix,y+3\*pix,1,6,0,COLOR2,pix,0);**

**printline(x+pix,y+4\*pix,1,7,0,COLOR2,pix,0);**

**printline(x+2\*pix,y+5\*pix,1,7,0,COLOR2,pix,0);**

**printline(x+3\*pix,y+6\*pix,1,7,0,COLOR2,pix,0);**

**printline(x+4\*pix,y+7\*pix,1,7,0,COLOR2,pix,0);**

**printline(x+5\*pix,y+8\*pix,1,6,0,COLOR2,pix,0);**

**printline(x+6\*pix,y+9\*pix,1,4,0,COLOR2,pix,0);**

**printline(x+7\*pix,y+10\*pix,1,2,0,COLOR2,pix,0);**

**printline(x+11\*pix,y+8\*pix,1,1,0,COLOR3,pix,0);**

**printline(x+10\*pix,y+9\*pix,1,3,0,COLOR3,pix,0);**

**printline(x+9\*pix,y+10\*pix,1,4,0,COLOR3,pix,0);**

**printline(x+8\*pix,y+11\*pix,1,4,0,COLOR3,pix,0);**

**printline(x+9\*pix,y+12\*pix,1,2,0,COLOR3,pix,0);**

**}**

**void put\_rubber(int x,int y,int COLOR,int pix)**

**{**

**printline(x+4\*pix,y,1,1,0,COLOR,pix,0);**

**printline(x+3\*pix,y+pix,1,3,0,COLOR,pix,0);**

**printline(x+2\*pix,y+2\*pix,1,5,0,COLOR,pix,0);**

**printline(x+pix,y+3\*pix,1,7,0,COLOR,pix,0);**

**printline(x,y+4\*pix,1,9,0,COLOR,pix,0);**

**printline(x+pix,y+5\*pix,1,9,0,COLOR,pix,0);**

**printline(x+2\*pix,y+6\*pix,1,9,0,COLOR,pix,0);**

**printline(x+3\*pix,y+7\*pix,1,9,0,COLOR,pix,0);**

**printline(x+4\*pix,y+8\*pix,1,9,0,COLOR,pix,0);**

**printline(x+5\*pix,y+9\*pix,1,7,0,COLOR,pix,0);**

**printline(x+6\*pix,y+10\*pix,1,5,0,COLOR,pix,0);**

**printline(x+7\*pix,y+11\*pix,1,3,0,COLOR,pix,0);**

**printline(x+8\*pix,y+12\*pix,1,1,0,COLOR,pix,0);**

**}**

**void put\_file(int x,int y,int DARKCOLOR,int LIGHTCOLOR,int pix)**

**{**

**int i;**

**setfillstyle(SOLID\_FILL,DARKCOLOR);**

**bar(x,y,x+13\*pix,y+10\*pix);**

**setfillstyle(SOLID\_FILL,LIGHTCOLOR);**

**bar(x+pix,y+pix,x+12\*pix,y+9\*pix);**

**setfillstyle(SOLID\_FILL,DARKCOLOR);**

**for(i=0;i<=6;i++)**

**bar(x+i\*pix,y+i\*pix,x+(i+1)\*pix,y+(i+1)\*pix);**

**for(i=0;i<=6;i++)**

**bar(x+(12-i)\*pix,y+i\*pix,x+(13-i)\*pix,y+(i+1)\*pix);**

**}**

**void put\_sprout(int x,int y,int COLOR,int pix)**

**{**

**printline(x,y,1,2,0,COLOR,pix,0);**

**printline(x+7\*pix,y,1,2,0,COLOR,pix,0);**

**printline(x,y+pix,1,3,0,COLOR,pix,0);**

**printline(x+6\*pix,y+pix,1,3,0,COLOR,pix,0);**

**printline(x,y+2\*pix,1,4,0,COLOR,pix,0);**

**printline(x+5\*pix,y+2\*pix,1,4,0,COLOR,pix,0);**

**printline(x+pix,y+3\*pix,1,7,0,COLOR,pix,0);**

**printline(x+2\*pix,y+4\*pix,1,5,0,COLOR,pix,0);**

**printline(x+4\*pix,y+5\*pix,1,4,1,COLOR,pix,0);**

**}**

**void put\_field(int x,int y,int LIGHTCOLOR,int DARKCOLOR,int pix)**

**{**

**setfillstyle(SOLID\_FILL,LIGHTCOLOR);**

**bar(x,y,x+9\*pix,y+9\*pix);**

**printline(x,y,1,9,0,DARKCOLOR,pix,0);**

**printline(x,y+4\*pix,1,9,0,DARKCOLOR,pix,0);**

**printline(x,y+8\*pix,1,9,0,DARKCOLOR,pix,0);**

**printline(x,y,1,9,1,DARKCOLOR,pix,0);**

**printline(x+4\*pix,y,1,9,1,DARKCOLOR,pix,0);**

**printline(x+8\*pix,y,1,9,1,DARKCOLOR,pix,0);**

**}**

**void put\_house(int x,int y,int DARKCOLOR,int LIGHTCOLOR,int pix)**

**{**

**printline(x+4\*pix,y,1,1,0,DARKCOLOR,pix,0);**

**printline(x+3\*pix,y+pix,1,3,0,DARKCOLOR,pix,0);**

**printline(x+2\*pix,y+2\*pix,1,5,0,DARKCOLOR,pix,0);**

**printline(x+pix,y+3\*pix,1,7,0,DARKCOLOR,pix,0);**

**printline(x,y+4\*pix,1,9,0,DARKCOLOR,pix,0);**

**setfillstyle(SOLID\_FILL,DARKCOLOR);**

**bar(x+pix,y+5\*pix,x+8\*pix,y+9\*pix);**

**setfillstyle(SOLID\_FILL,LIGHTCOLOR);**

**bar(x+2\*pix,y+5\*pix,x+4\*pix,y+7\*pix);**

**printline(x+6\*pix,y+7\*pix,1,2,1,LIGHTCOLOR,pix,0);**

**}**

**void put\_arrow(int x,int y,int COLOR,int pix,int flag)**

**{**

**if(flag == LEFTARROW)**

**{**

**printline(x+3\*pix,y,1,2,0,COLOR,pix,0);**

**printline(x+2\*pix,y+pix,1,3,0,COLOR,pix,0);**

**printline(x+pix,y+2\*pix,1,15,0,COLOR,pix,0);**

**printline(x,y+3\*pix,1,16,0,COLOR,pix,0);**

**printline(x,y+4\*pix,1,16,0,COLOR,pix,0);**

**printline(x+pix,y+5\*pix,1,15,0,COLOR,pix,0);**

**printline(x+2\*pix,y+6\*pix,1,3,0,COLOR,pix,0);**

**printline(x+3\*pix,y+7\*pix,1,2,0,COLOR,pix,0);**

**}**

**else if(flag == RIGHTARROW)**

**{**

**printline(x+11\*pix,y,1,2,0,COLOR,pix,0);**

**printline(x+11\*pix,y+pix,1,3,0,COLOR,pix,0);**

**printline(x,y+2\*pix,1,15,0,COLOR,pix,0);**

**printline(x,y+3\*pix,1,16,0,COLOR,pix,0);**

**printline(x,y+4\*pix,1,16,0,COLOR,pix,0);**

**printline(x,y+5\*pix,1,15,0,COLOR,pix,0);**

**printline(x+11\*pix,y+6\*pix,1,3,0,COLOR,pix,0);**

**printline(x+11\*pix,y+7\*pix,1,2,0,COLOR,pix,0);**

**}**

**}**

**void put\_shovel(int x,int y,int pix,int COLOR1,int COLOR2)**

**{**

**printline(x,y,1,5,0,COLOR1,pix,0);**

**printline(x,y+pix,1,6,0,COLOR1,pix,0);**

**printline(x,y+2\*pix,1,7,0,COLOR1,pix,0);**

**printline(x,y+3\*pix,1,7,0,COLOR1,pix,0);**

**printline(x,y+4\*pix,1,6,0,COLOR1,pix,0);**

**printline(x+pix,y+5\*pix,1,4,0,COLOR1,pix,0);**

**printline(x+2\*pix,y+6\*pix,1,2,0,COLOR1,pix,0);**

**printline(x+5\*pix,y+5\*pix,1,2,0,COLOR2,pix,0);**

**printline(x+5\*pix,y+6\*pix,1,3,0,COLOR2,pix,0);**

**printline(x+6\*pix,y+7\*pix,1,3,0,COLOR2,pix,0);**

**printline(x+7\*pix,y+8\*pix,1,3,0,COLOR2,pix,0);**

**printline(x+8\*pix,y+9\*pix,1,3,0,COLOR2,pix,0);**

**printline(x+9\*pix,y+10\*pix,1,3,0,COLOR2,pix,0);**

**printline(x+10\*pix,y+11\*pix,1,2,0,COLOR2,pix,0);**

**printline(x+8\*pix,y+12\*pix,1,3,0,COLOR2,pix,0);**

**printline(x+12\*pix,y+9\*pix,1,3,1,COLOR2,pix,0);**

**}**

**void put\_drone2(int x,int y,int DARKCOLOR,int LIGHTCOLOR,int pix)**

**{**

**printline(x+4\*pix,y,1,5,0,DARKCOLOR,pix,0);**

**printline(x+3\*pix,y+pix,1,7,0,DARKCOLOR,pix,0);**

**printline(x+2\*pix,y+2\*pix,1,9,0,DARKCOLOR,pix,0);**

**printline(x+pix,y+3\*pix,1,11,0,DARKCOLOR,pix,0);**

**printline(x,y+4\*pix,1,13,0,DARKCOLOR,pix,0);**

**printline(x+4\*pix,y+5\*pix,1,1,0,DARKCOLOR,pix,0);**

**printline(x+8\*pix,y+5\*pix,1,1,0,DARKCOLOR,pix,0);**

**printline(x+3\*pix,y+6\*pix,1,2,1,DARKCOLOR,pix,0);**

**printline(x+9\*pix,y+6\*pix,1,2,1,DARKCOLOR,pix,0);**

**printline(x+2\*pix,y+8\*pix,1,1,0,DARKCOLOR,pix,0);**

**printline(x+10\*pix,y+8\*pix,1,1,0,DARKCOLOR,pix,0);**

**printline(x+5\*pix,y+pix,1,3,0,LIGHTCOLOR,pix,0);**

**printline(x+4\*pix,y+2\*pix,1,5,0,LIGHTCOLOR,pix,0);**

**printline(x+3\*pix,y+3\*pix,1,7,0,LIGHTCOLOR,pix,0);**

**}**

**void put\_crop1(int x,int y,int type,int situation)//rice**

**{**

**setlinestyle(SOLID\_LINE,0,NORM\_WIDTH);**

**if(type == SPROUT)**

**{**

**if(situation == HEALTHY)**

**{**

**putpixel(x+11,y+3,GREEN);**

**setcolor(GREEN);**

**line(x+11,y+4,x+12,y+4);**

**line(x+10,y+5,x+11,y+5);**

**line(x+10,y+5,x+10,y+7);**

**line(x+9,y+7,x+10,y+7);**

**line(x+9,y+7,x+9,y+12);**

**line(x+5,y+9,x+6,y+9);**

**line(x+6,y+10,x+7,y+10);**

**line(x+7,y+10,x+7,y+12);**

**line(x+7,y+13,x+9,y+13);**

**line(x+8,y+14,x+11,y+14);**

**line(x+8,y+15,x+10,y+15);**

**line(x+9,y+16,x+10,y+16);**

**line(x+9,y+17,x+9,y+19);**

**line(x+11,y+10,x+11,y+14);**

**line(x+12,y+8,x+12,y+10);**

**line(x+13,y+7,x+13,y+8);**

**}**

**else if(situation == SICK)**

**{**

**putpixel(x+11,y+3,GREEN);**

**setcolor(GREEN);**

**line(x+11,y+4,x+12,y+4);**

**line(x+10,y+5,x+11,y+5);**

**line(x+10,y+5,x+10,y+7);**

**line(x+9,y+7,x+10,y+7);**

**line(x+9,y+7,x+9,y+12);**

**line(x+5,y+9,x+6,y+9);**

**line(x+6,y+10,x+7,y+10);**

**line(x+7,y+10,x+7,y+12);**

**line(x+7,y+13,x+9,y+13);**

**line(x+8,y+14,x+11,y+14);**

**line(x+8,y+15,x+10,y+15);**

**line(x+9,y+16,x+10,y+16);**

**line(x+9,y+17,x+9,y+19);**

**line(x+11,y+10,x+11,y+14);**

**line(x+12,y+8,x+12,y+10);**

**line(x+13,y+7,x+13,y+8);**

**putpixel(x+12,y+4,RED);**

**putpixel(x+10,y+5,RED);**

**putpixel(x+6,y+9,RED);**

**putpixel(x+7,y+11,RED);**

**putpixel(x+12,y+10,RED);**

**putpixel(x+11,y+12,RED);**

**putpixel(x+8,y+13,RED);**

**putpixel(x+8,y+14,RED);**

**putpixel(x+10,y+16,RED);**

**}**

**}**

**else if(type == TRANSITION)**

**{**

**if(situation == HEALTHY)**

**{**

**putpixel(x+11,y+3,GREEN);**

**putpixel(x+10,y+4,YELLOW);**

**putpixel(x+12,y+5,YELLOW);**

**putpixel(x+14,y+8,YELLOW);**

**putpixel(x+9,y+7,YELLOW);**

**putpixel(x+6,y+11,YELLOW);**

**setcolor(GREEN);**

**line(x+11,y+4,x+12,y+4);**

**line(x+10,y+5,x+11,y+5);**

**line(x+10,y+5,x+10,y+7);**

**line(x+9,y+7,x+10,y+7);**

**line(x+9,y+7,x+9,y+12);**

**line(x+5,y+9,x+6,y+9);**

**line(x+6,y+10,x+7,y+10);**

**line(x+7,y+10,x+7,y+12);**

**line(x+7,y+13,x+9,y+13);**

**line(x+8,y+14,x+11,y+14);**

**line(x+8,y+15,x+10,y+15);**

**line(x+9,y+16,x+10,y+16);**

**line(x+9,y+17,x+9,y+19);**

**line(x+11,y+10,x+11,y+14);**

**line(x+12,y+8,x+12,y+10);**

**line(x+13,y+7,x+13,y+8);**

**}**

**else if(situation == SICK)**

**{**

**putpixel(x+11,y+3,GREEN);**

**putpixel(x+10,y+4,YELLOW);**

**putpixel(x+12,y+5,YELLOW);**

**putpixel(x+14,y+8,YELLOW);**

**putpixel(x+9,y+7,YELLOW);**

**putpixel(x+6,y+11,YELLOW);**

**setcolor(GREEN);**

**line(x+11,y+4,x+12,y+4);**

**line(x+10,y+5,x+11,y+5);**

**line(x+10,y+5,x+10,y+7);**

**line(x+9,y+7,x+10,y+7);**

**line(x+9,y+7,x+9,y+12);**

**line(x+5,y+9,x+6,y+9);**

**line(x+6,y+10,x+7,y+10);**

**line(x+7,y+10,x+7,y+12);**

**line(x+7,y+13,x+9,y+13);**

**line(x+8,y+14,x+11,y+14);**

**line(x+8,y+15,x+10,y+15);**

**line(x+9,y+16,x+10,y+16);**

**line(x+9,y+17,x+9,y+19);**

**line(x+11,y+10,x+11,y+14);**

**line(x+12,y+8,x+12,y+10);**

**line(x+13,y+7,x+13,y+8);**

**putpixel(x+12,y+4,RED);**

**putpixel(x+10,y+5,RED);**

**putpixel(x+6,y+9,RED);**

**putpixel(x+7,y+11,RED);**

**putpixel(x+12,y+10,RED);**

**putpixel(x+11,y+12,RED);**

**putpixel(x+8,y+13,RED);**

**putpixel(x+8,y+14,RED);**

**putpixel(x+10,y+16,RED);**

**}**

**}**

**else if(type == CROP)**

**{**

**if(situation == HEALTHY)**

**{**

**putpixel(x+11,y+3,GREEN);**

**putpixel(x+10,y+4,YELLOW);**

**putpixel(x+12,y+5,YELLOW);**

**putpixel(x+14,y+8,YELLOW);**

**putpixel(x+9,y+7,YELLOW);**

**putpixel(x+6,y+11,YELLOW);**

**putpixel(x+9,y+5,YELLOW);**

**putpixel(x+13,y+6,YELLOW);**

**putpixel(x+14,y+6,YELLOW);**

**putpixel(x+11,y+7,YELLOW);**

**putpixel(x+4,y+8,YELLOW);**

**putpixel(x+6,y+8,YELLOW);**

**putpixel(x+14,y+8,YELLOW);**

**putpixel(x+4,y+9,YELLOW);**

**putpixel(x+7,y+9,YELLOW);**

**putpixel(x+8,y+9,YELLOW);**

**putpixel(x+11,y+9,YELLOW);**

**putpixel(x+5,y+10,YELLOW);**

**putpixel(x+10,y+10,YELLOW);**

**putpixel(x+13,y+10,YELLOW);**

**putpixel(x+8,y+11,YELLOW);**

**putpixel(x+8,y+12,YELLOW);**

**putpixel(x+12,y+12,YELLOW);**

**putpixel(x+12,y+13,YELLOW);**

**putpixel(x+7,y+14,YELLOW);**

**setcolor(GREEN);**

**line(x+11,y+4,x+12,y+4);**

**line(x+10,y+5,x+11,y+5);**

**line(x+10,y+5,x+10,y+7);**

**line(x+9,y+7,x+10,y+7);**

**line(x+9,y+7,x+9,y+12);**

**line(x+5,y+9,x+6,y+9);**

**line(x+6,y+10,x+7,y+10);**

**line(x+7,y+10,x+7,y+12);**

**line(x+7,y+13,x+9,y+13);**

**line(x+8,y+14,x+11,y+14);**

**line(x+8,y+15,x+10,y+15);**

**line(x+9,y+16,x+10,y+16);**

**line(x+9,y+17,x+9,y+19);**

**line(x+11,y+10,x+11,y+14);**

**line(x+12,y+8,x+12,y+10);**

**line(x+13,y+7,x+13,y+8);**

**}**

**else if(situation == SICK)**

**{**

**putpixel(x+11,y+3,GREEN);**

**putpixel(x+10,y+4,YELLOW);**

**putpixel(x+12,y+5,YELLOW);**

**putpixel(x+14,y+8,YELLOW);**

**putpixel(x+9,y+7,YELLOW);**

**putpixel(x+6,y+11,YELLOW);**

**putpixel(x+9,y+5,YELLOW);**

**putpixel(x+13,y+6,YELLOW);**

**putpixel(x+14,y+6,YELLOW);**

**putpixel(x+11,y+7,YELLOW);**

**putpixel(x+4,y+8,YELLOW);**

**putpixel(x+6,y+8,YELLOW);**

**putpixel(x+14,y+8,YELLOW);**

**putpixel(x+4,y+9,YELLOW);**

**putpixel(x+7,y+9,YELLOW);**

**putpixel(x+8,y+9,YELLOW);**

**putpixel(x+11,y+9,YELLOW);**

**putpixel(x+5,y+10,YELLOW);**

**putpixel(x+10,y+10,YELLOW);**

**putpixel(x+13,y+10,YELLOW);**

**putpixel(x+8,y+11,YELLOW);**

**putpixel(x+8,y+12,YELLOW);**

**putpixel(x+12,y+12,YELLOW);**

**putpixel(x+12,y+13,YELLOW);**

**putpixel(x+7,y+14,YELLOW);**

**setcolor(GREEN);**

**line(x+11,y+4,x+12,y+4);**

**line(x+10,y+5,x+11,y+5);**

**line(x+10,y+5,x+10,y+7);**

**line(x+9,y+7,x+10,y+7);**

**line(x+9,y+7,x+9,y+12);**

**line(x+5,y+9,x+6,y+9);**

**line(x+6,y+10,x+7,y+10);**

**line(x+7,y+10,x+7,y+12);**

**line(x+7,y+13,x+9,y+13);**

**line(x+8,y+14,x+11,y+14);**

**line(x+8,y+15,x+10,y+15);**

**line(x+9,y+16,x+10,y+16);**

**line(x+9,y+17,x+9,y+19);**

**line(x+11,y+10,x+11,y+14);**

**line(x+12,y+8,x+12,y+10);**

**line(x+13,y+7,x+13,y+8);**

**putpixel(x+12,y+4,RED);**

**putpixel(x+10,y+5,RED);**

**putpixel(x+6,y+9,RED);**

**putpixel(x+7,y+11,RED);**

**putpixel(x+12,y+10,RED);**

**putpixel(x+11,y+12,RED);**

**putpixel(x+8,y+13,RED);**

**putpixel(x+8,y+14,RED);**

**putpixel(x+10,y+16,RED);**

**}**

**}**

**}**

**void put\_crop2(int x,int y,int type,int situation)//corn**

**{**

**setlinestyle(SOLID\_LINE,0,NORM\_WIDTH);**

**if(type == SPROUT)**

**{**

**if(situation == HEALTHY)**

**{**

**putpixel(x+9,y+8,GREEN);**

**setcolor(GREEN);**

**line(x+8,y+9,x+10,y+9);**

**line(x+7,y+10,x+11,y+10);**

**line(x+7,y+11,x+11,y+11);**

**line(x+7,y+12,x+11,y+12);**

**line(x+8,y+13,x+10,y+13);**

**line(x+9,y+13,x+9,y+19);**

**line(x+6,y+15,x+7,y+15);**

**line(x+7,y+16,x+8,y+16);**

**line(x+8,y+17,x+9,y+17);**

**line(x+11,y+16,x+12,y+16);**

**line(x+10,y+17,x+11,y+17);**

**line(x+9,y+18,x+10,y+18);**

**}**

**else if(situation == SICK)**

**{**

**putpixel(x+9,y+8,GREEN);**

**setcolor(GREEN);**

**line(x+8,y+9,x+10,y+9);**

**line(x+7,y+10,x+11,y+10);**

**line(x+7,y+11,x+11,y+11);**

**line(x+7,y+12,x+11,y+12);**

**line(x+8,y+13,x+10,y+13);**

**line(x+9,y+13,x+9,y+19);**

**line(x+6,y+15,x+7,y+15);**

**line(x+7,y+16,x+8,y+16);**

**line(x+8,y+17,x+9,y+17);**

**line(x+11,y+16,x+12,y+16);**

**line(x+10,y+17,x+11,y+17);**

**line(x+9,y+18,x+10,y+18);**

**putpixel(x+9,y+9,RED);**

**putpixel(x+8,y+10,RED);**

**putpixel(x+9,y+11,RED);**

**putpixel(x+10,y+11,RED);**

**putpixel(x+9,y+12,RED);**

**putpixel(x+9,y+15,RED);**

**putpixel(x+7,y+16,RED);**

**putpixel(x+11,y+16,RED);**

**putpixel(x+8,y+17,RED);**

**putpixel(x+9,y+18,RED);**

**}**

**}**

**else if(type == TRANSITION)**

**{**

**if(situation == HEALTHY)**

**{**

**putpixel(x+9,y+5,YELLOW);**

**setcolor(GREEN);**

**line(x+9,y+13,x+9,y+19);**

**line(x+6,y+15,x+7,y+15);**

**line(x+7,y+16,x+8,y+16);**

**line(x+8,y+17,x+9,y+17);**

**line(x+11,y+16,x+12,y+16);**

**line(x+10,y+17,x+11,y+17);**

**line(x+9,y+18,x+10,y+18);**

**setcolor(YELLOW);**

**line(x+8,y+6,x+10,y+6);**

**line(x+7,y+7,x+11,y+7);**

**line(x+6,y+8,x+12,y+8);**

**line(x+6,y+9,x+12,y+9);**

**line(x+6,y+10,x+12,y+10);**

**line(x+6,y+11,x+12,y+11);**

**line(x+7,y+12,x+11,y+12);**

**line(x+8,y+13,x+10,y+13);**

**setcolor(GREEN);**

**line(x+5,y+7,x+5,y+9);**

**line(x+6,y+9,x+6,y+11);**

**line(x+7,y+10,x+7,y+12);**

**line(x+8,y+11,x+8,y+13);**

**line(x+8,y+13,x+10,y+13);**

**line(x+13,y+7,x+13,y+9);**

**line(x+12,y+9,x+12,y+11);**

**line(x+11,y+10,x+11,y+12);**

**line(x+10,y+11,x+10,y+13);**

**}**

**else if(situation == SICK)**

**{**

**putpixel(x+9,y+5,YELLOW);**

**setcolor(GREEN);**

**line(x+9,y+13,x+9,y+19);**

**line(x+6,y+15,x+7,y+15);**

**line(x+7,y+16,x+8,y+16);**

**line(x+8,y+17,x+9,y+17);**

**line(x+11,y+16,x+12,y+16);**

**line(x+10,y+17,x+11,y+17);**

**line(x+9,y+18,x+10,y+18);**

**setcolor(YELLOW);**

**line(x+8,y+6,x+10,y+6);**

**line(x+7,y+7,x+11,y+7);**

**line(x+6,y+8,x+12,y+8);**

**line(x+6,y+9,x+12,y+9);**

**line(x+6,y+10,x+12,y+10);**

**line(x+6,y+11,x+12,y+11);**

**line(x+7,y+12,x+11,y+12);**

**line(x+8,y+13,x+10,y+13);**

**setcolor(GREEN);**

**line(x+5,y+7,x+5,y+9);**

**line(x+6,y+9,x+6,y+11);**

**line(x+7,y+10,x+7,y+12);**

**line(x+8,y+11,x+8,y+13);**

**line(x+8,y+13,x+10,y+13);**

**line(x+13,y+7,x+13,y+9);**

**line(x+12,y+9,x+12,y+11);**

**line(x+11,y+10,x+11,y+12);**

**line(x+10,y+11,x+10,y+13);**

**putpixel(x+9,y+9,RED);**

**putpixel(x+8,y+10,RED);**

**putpixel(x+9,y+11,RED);**

**putpixel(x+10,y+11,RED);**

**putpixel(x+9,y+12,RED);**

**putpixel(x+9,y+15,RED);**

**putpixel(x+7,y+16,RED);**

**putpixel(x+11,y+16,RED);**

**putpixel(x+8,y+17,RED);**

**putpixel(x+9,y+18,RED);**

**putpixel(x+5,y+7,RED);**

**putpixel(x+6,y+10,RED);**

**putpixel(x+6,y+11,RED);**

**putpixel(x+11,y+12,RED);**

**putpixel(x+13,y+9,RED);**

**}**

**}**

**else if(type == CROP)**

**{**

**if(situation == HEALTHY)**

**{**

**putpixel(x+9,y+5,YELLOW);**

**setcolor(GREEN);**

**line(x+9,y+13,x+9,y+19);**

**line(x+6,y+15,x+7,y+15);**

**line(x+7,y+16,x+8,y+16);**

**line(x+8,y+17,x+9,y+17);**

**line(x+11,y+16,x+12,y+16);**

**line(x+10,y+17,x+11,y+17);**

**line(x+9,y+18,x+10,y+18);**

**setcolor(YELLOW);**

**line(x+8,y+6,x+10,y+6);**

**line(x+7,y+7,x+11,y+7);**

**line(x+6,y+8,x+12,y+8);**

**line(x+6,y+9,x+12,y+9);**

**line(x+6,y+10,x+12,y+10);**

**line(x+6,y+11,x+12,y+11);**

**line(x+7,y+12,x+11,y+12);**

**line(x+8,y+13,x+10,y+13);**

**}**

**else if(situation == SICK)**

**{**

**putpixel(x+9,y+5,YELLOW);**

**setcolor(GREEN);**

**line(x+9,y+13,x+9,y+19);**

**line(x+6,y+15,x+7,y+15);**

**line(x+7,y+16,x+8,y+16);**

**line(x+8,y+17,x+9,y+17);**

**line(x+11,y+16,x+12,y+16);**

**line(x+10,y+17,x+11,y+17);**

**line(x+9,y+18,x+10,y+18);**

**setcolor(YELLOW);**

**line(x+8,y+6,x+10,y+6);**

**line(x+7,y+7,x+11,y+7);**

**line(x+6,y+8,x+12,y+8);**

**line(x+6,y+9,x+12,y+9);**

**line(x+6,y+10,x+12,y+10);**

**line(x+6,y+11,x+12,y+11);**

**line(x+7,y+12,x+11,y+12);**

**line(x+8,y+13,x+10,y+13);**

**putpixel(x+9,y+9,RED);**

**putpixel(x+8,y+10,RED);**

**putpixel(x+9,y+11,RED);**

**putpixel(x+10,y+11,RED);**

**putpixel(x+9,y+12,RED);**

**putpixel(x+9,y+15,RED);**

**putpixel(x+7,y+16,RED);**

**putpixel(x+11,y+16,RED);**

**putpixel(x+8,y+17,RED);**

**putpixel(x+9,y+18,RED);**

**putpixel(x+9,y+5,RED);**

**putpixel(x+10,y+6,RED);**

**putpixel(x+11,y+7,RED);**

**putpixel(x+8,y+7,RED);**

**putpixel(x+11,y+9,RED);**

**putpixel(x+12,y+9,RED);**

**putpixel(x+12,y+10,RED);**

**putpixel(x+7,y+11,RED);**

**}**

**}**

**}**

**void put\_crop3(int x,int y,int type,int situation)//cane**

**{**

**setlinestyle(SOLID\_LINE,0,NORM\_WIDTH);**

**if(type == SPROUT)**

**{**

**if(situation == HEALTHY)**

**{**

**setcolor(GREEN);**

**line(x+8,y+12,x+10,y+12);**

**line(x+8,y+12,x+8,y+19);**

**line(x+10,y+12,x+10,y+19);**

**line(x+8,y+19,x+10,y+19);**

**line(x+8,y+16,x+8,y+16);**

**setcolor(LIGHTGREEN);**

**line(x+9,y+13,x+9,y+15);**

**line(x+9,y+17,x+9,y+18);**

**}**

**else if(situation == SICK)**

**{**

**setcolor(GREEN);**

**line(x+8,y+12,x+10,y+12);**

**line(x+8,y+12,x+8,y+19);**

**line(x+10,y+12,x+10,y+19);**

**line(x+8,y+19,x+10,y+19);**

**line(x+8,y+16,x+8,y+16);**

**setcolor(LIGHTGREEN);**

**line(x+9,y+13,x+9,y+15);**

**line(x+9,y+17,x+9,y+18);**

**putpixel(x+10,y+13,RED);**

**putpixel(x+10,y+15,RED);**

**putpixel(x+10,y+16,RED);**

**putpixel(x+8,y+17,RED);**

**putpixel(x+10,y+19,RED);**

**putpixel(x+9,y+14,RED);**

**}**

**}**

**else if(type == TRANSITION)**

**{**

**if(situation == HEALTHY)**

**{**

**setcolor(GREEN);**

**line(x+8,y+12,x+10,y+12);**

**line(x+8,y+12,x+8,y+19);**

**line(x+10,y+12,x+10,y+19);**

**line(x+8,y+19,x+10,y+19);**

**line(x+8,y+16,x+8,y+16);**

**line(x+8,y+8,x+8,y+12);**

**line(x+10,y+8,x+10,y+12);**

**line(x+8,y+8,x+10,y+8);**

**setcolor(LIGHTGREEN);**

**line(x+9,y+13,x+9,y+15);**

**line(x+9,y+17,x+9,y+18);**

**line(x+9,y+9,x+9,y+11);**

**}**

**else if(situation == SICK)**

**{**

**setcolor(GREEN);**

**line(x+8,y+12,x+10,y+12);**

**line(x+8,y+12,x+8,y+19);**

**line(x+10,y+12,x+10,y+19);**

**line(x+8,y+19,x+10,y+19);**

**line(x+8,y+16,x+8,y+16);**

**line(x+8,y+8,x+8,y+12);**

**line(x+10,y+8,x+10,y+12);**

**line(x+8,y+8,x+10,y+8);**

**setcolor(LIGHTGREEN);**

**line(x+9,y+13,x+9,y+15);**

**line(x+9,y+17,x+9,y+18);**

**line(x+9,y+9,x+9,y+11);**

**putpixel(x+10,y+13,RED);**

**putpixel(x+10,y+15,RED);**

**putpixel(x+10,y+16,RED);**

**putpixel(x+8,y+17,RED);**

**putpixel(x+10,y+19,RED);**

**putpixel(x+9,y+14,RED);**

**putpixel(x+10,y+8,RED);**

**putpixel(x+10,y+10,RED);**

**putpixel(x+9,y+9,RED);**

**putpixel(x+8,y+10,RED);**

**}**

**}**

**else if(type == CROP)**

**{**

**if(situation == HEALTHY)**

**{**

**setcolor(GREEN);**

**line(x+8,y+12,x+10,y+12);**

**line(x+8,y+12,x+8,y+19);**

**line(x+10,y+12,x+10,y+19);**

**line(x+8,y+19,x+10,y+19);**

**line(x+8,y+16,x+8,y+16);**

**line(x+8,y+8,x+8,y+12);**

**line(x+10,y+8,x+10,y+12);**

**line(x+8,y+8,x+10,y+8);**

**line(x+8,y+1,x+8,y+7);**

**line(x+10,y+2,x+10,y+7);**

**line(x+8,y+4,x+10,y+4);**

**line(x+5,y+1,x+5,y+2);**

**line(x+6,y+3,x+6,y+4);**

**line(x+7,y+2,x+7,y+3);**

**line(x+11,y+1,x+11,y+2);**

**line(x+12,y+2,x+12,y+3);**

**line(x+13,y+3,x+13,y+4);**

**line(x+13,y+1,x+14,y+1);**

**setcolor(LIGHTGREEN);**

**line(x+9,y+13,x+9,y+15);**

**line(x+9,y+17,x+9,y+18);**

**line(x+9,y+9,x+9,y+11);**

**line(x+9,y+5,x+9,y+7);**

**}**

**else if(situation == SICK)**

**{**

**setcolor(GREEN);**

**line(x+8,y+12,x+10,y+12);**

**line(x+8,y+12,x+8,y+19);**

**line(x+10,y+12,x+10,y+19);**

**line(x+8,y+19,x+10,y+19);**

**line(x+8,y+16,x+8,y+16);**

**line(x+8,y+8,x+8,y+12);**

**line(x+10,y+8,x+10,y+12);**

**line(x+8,y+8,x+10,y+8);**

**line(x+8,y+1,x+8,y+7);**

**line(x+10,y+2,x+10,y+7);**

**line(x+8,y+4,x+10,y+4);**

**line(x+5,y+1,x+5,y+2);**

**line(x+6,y+3,x+6,y+4);**

**line(x+7,y+2,x+7,y+3);**

**line(x+11,y+1,x+11,y+2);**

**line(x+12,y+2,x+12,y+3);**

**line(x+13,y+3,x+13,y+4);**

**line(x+13,y+1,x+14,y+1);**

**setcolor(LIGHTGREEN);**

**line(x+9,y+13,x+9,y+15);**

**line(x+9,y+17,x+9,y+18);**

**line(x+9,y+9,x+9,y+11);**

**line(x+9,y+5,x+9,y+7);**

**putpixel(x+10,y+13,RED);**

**putpixel(x+10,y+15,RED);**

**putpixel(x+10,y+16,RED);**

**putpixel(x+8,y+17,RED);**

**putpixel(x+10,y+19,RED);**

**putpixel(x+9,y+14,RED);**

**putpixel(x+10,y+8,RED);**

**putpixel(x+10,y+10,RED);**

**putpixel(x+9,y+9,RED);**

**putpixel(x+8,y+10,RED);**

**putpixel(x+5,y+2,RED);**

**putpixel(x+14,y+1,RED);**

**putpixel(x+8,y+3,RED);**

**putpixel(x+11,y+3,RED);**

**putpixel(x+9,y+5,RED);**

**putpixel(x+8,y+6,RED);**

**}**

**}**

**}**

**void put\_drone1(float x,float y,int pix)**

**{**

**printline(x-1\*pix,y-1\*pix,1,3,0,BLUE,pix,0);**

**printline(x-2\*pix,y,1,5,0,BLUE,pix,0);**

**printline(x-1\*pix,y,1,3,0,LIGHTGRAY,pix,0);**

**printline(x,y,1,1,0,YELLOW,pix,0);**

**printline(x-3\*pix,y+1\*pix,1,7,0,BLUE,pix,0);**

**printline(x-1\*pix,y+2\*pix,1,1,0,BLUE,pix,0);**

**printline(x+1\*pix,y+2\*pix,1,1,0,BLUE,pix,0);**

**printline(x-2\*pix,y+3\*pix,1,1,0,BLUE,pix,0);**

**printline(x+2\*pix,y+3\*pix,1,1,0,BLUE,pix,0);**

**}**

**void put\_tree1(int x,int y,int pix)**

**{**

**printline(x,y,1,7,1,GREEN,pix,0);**

**printline(x+pix,y+pix,1,6,1,GREEN,pix,0);**

**printline(x-pix,y+pix,1,6,1,GREEN,pix,0);**

**printline(x+2\*pix,y+2\*pix,1,5,1,GREEN,pix,0);**

**printline(x-2\*pix,y+2\*pix,1,5,1,GREEN,pix,0);**

**printline(x+3\*pix,y+3\*pix,1,3,1,GREEN,pix,0);**

**printline(x-3\*pix,y+3\*pix,1,3,1,GREEN,pix,0);**

**printline(x,y+7\*pix,1,2,1,BROWN,pix,0);**

**}**

**void put\_Erlenmeyer\_flask(int x,int y,int style,int pix)**

**{**

**int i;**

**if(style == 0)**

**{**

**for(i=0;i<7;i++)**

**{**

**printline(x+3\*pix+i\*pix,y+3\*pix+2\*i\*pix,1,2,1,LIGHTGRAY,pix,0);**

**printline(x+5\*pix+i\*pix,y+3\*pix+2\*i\*pix,1,2,1,LIGHTGRAY,pix,0);**

**}**

**printline(x+3\*pix,y+3\*pix,1,3,0,LIGHTGRAY,pix,0);**

**}**

**else if(style == 1)**

**{**

**for(i=0;i<4;i++)**

**{**

**printline(x+6\*pix+i\*pix,y+5\*pix+3\*i\*pix,1,3,1,LIGHTGRAY,pix,0);**

**printline(x+8\*pix+i\*pix,y+5\*pix+3\*i\*pix,1,3,1,LIGHTGRAY,pix,0);**

**}**

**printline(x+6\*pix,y+4\*pix,1,3,0,LIGHTGRAY,pix,0);**

**}**

**else if(style == 2)**

**{**

**printline(x+9\*pix,y+5\*pix,1,3,0,LIGHTGRAY,pix,0);**

**printline(x+9\*pix,y+5\*pix,1,12,1,LIGHTGRAY,pix,0);**

**printline(x+11\*pix,y+5\*pix,1,12,1,LIGHTGRAY,pix,0);**

**}**

**else if(style == 3)**

**{**

**for(i=0;i<4;i++)**

**{**

**printline(x+13\*pix-i\*pix,y+5\*pix+3\*i\*pix,1,3,1,LIGHTGRAY,pix,0);**

**printline(x+15\*pix-i\*pix,y+5\*pix+3\*i\*pix,1,3,1,LIGHTGRAY,pix,0);**

**}**

**printline(x+13\*pix,y+4\*pix,1,3,0,LIGHTGRAY,pix,0);**

**}**

**else if(style == 4)**

**{**

**for(i=0;i<7;i++)**

**{**

**printline(x+16\*pix-i\*pix,y+3\*pix+2\*i\*pix,1,2,1,LIGHTGRAY,pix,0);**

**printline(x+18\*pix-i\*pix,y+3\*pix+2\*i\*pix,1,2,1,LIGHTGRAY,pix,0);**

**}**

**printline(x+16\*pix,y+3\*pix,1,3,0,LIGHTGRAY,pix,0);**

**}**

**else if(style == 5)**

**{**

**for(i=0;i<3;i++)**

**{**

**printline(x+13\*pix-i\*pix,y+3\*pix+3\*i\*pix,1,3,1,LIGHTGRAY,pix,0);**

**printline(x+15\*pix-i\*pix,y+3\*pix+3\*i\*pix,1,3,1,LIGHTGRAY,pix,0);**

**}**

**printline(x+13\*pix-3\*pix,y+3\*pix+3\*3\*pix,1,5,1,LIGHTGRAY,pix,0);**

**printline(x+15\*pix-3\*pix,y+3\*pix+3\*3\*pix,1,5,1,LIGHTGRAY,pix,0);**

**printline(x+13\*pix,y+2\*pix,1,3,0,LIGHTGRAY,pix,0);**

**}**

**else if(style == 6)**

**{**

**printline(x+9\*pix,y+pix,1,3,0,LIGHTGRAY,pix,0);**

**printline(x+9\*pix,y+pix,1,16,1,LIGHTGRAY,pix,0);**

**printline(x+11\*pix,y+pix,1,16,1,LIGHTGRAY,pix,0);**

**}**

**else if(style == 7)**

**{**

**for(i=0;i<3;i++)**

**{**

**printline(x+6\*pix+i\*pix,y+3\*pix+3\*i\*pix,1,3,1,LIGHTGRAY,pix,0);**

**printline(x+8\*pix+i\*pix,y+3\*pix+3\*i\*pix,1,3,1,LIGHTGRAY,pix,0);**

**}**

**printline(x+6\*pix+3\*pix,y+3\*pix+3\*3\*pix,1,5,1,LIGHTGRAY,pix,0);**

**printline(x+8\*pix+3\*pix,y+3\*pix+3\*3\*pix,1,5,1,LIGHTGRAY,pix,0);**

**printline(x+6\*pix,y+2\*pix,1,3,0,LIGHTGRAY,pix,0);**

**}**

**printline(x+7\*pix,y+13\*pix,1,8,0,LIGHTGRAY,pix,0);**

**printline(x+5\*pix,y+14\*pix,1,2,0,LIGHTGRAY,pix,0);**

**printline(x+15\*pix,y+14\*pix,1,2,0,LIGHTGRAY,pix,0);**

**printline(x+4\*pix,y+15\*pix,1,3,1,LIGHTGRAY,pix,0);**

**printline(x+17\*pix,y+15\*pix,1,3,1,LIGHTGRAY,pix,0);**

**printline(x+5\*pix,y+18\*pix,1,2,0,LIGHTGRAY,pix,0);**

**printline(x+15\*pix,y+18\*pix,1,2,0,LIGHTGRAY,pix,0);**

**printline(x+6\*pix,y+19\*pix,1,10,0,LIGHTGRAY,pix,0);**

**printline(x+7\*pix,y+20\*pix,1,3,1,LIGHTGRAY,pix,0);**

**printline(x+14\*pix,y+20\*pix,1,3,1,LIGHTGRAY,pix,0);**

**printline(x+8\*pix,y+17\*pix,1,6,0,LIGHTGRAY,pix,0);**

**printline(x+8\*pix,y+15\*pix,1,6,0,LIGHTGRAY,pix,0);**

**printline(x+7\*pix,y+16\*pix,1,1,0,LIGHTGRAY,pix,0);**

**printline(x+14\*pix,y+16\*pix,1,1,0,LIGHTGRAY,pix,0);**

**for(i=0;i<7;i++)**

**{**

**printline(x+6\*pix-i\*pix,y+23\*pix+2\*i\*pix,1,2,1,LIGHTGRAY,pix,0);**

**printline(x+15\*pix+i\*pix,y+23\*pix+2\*i\*pix,1,2,1,LIGHTGRAY,pix,0);**

**}**

**printline(x,y+37\*pix,1,22,0,LIGHTGRAY,pix,0);**

**}**

**void put\_cloud(int x,int y,int pix)**

**{**

**printline(x,y,1,13,0,LIGHTBLUE,pix,0);**

**printline(x+1\*pix,y-1\*pix,1,11,0,LIGHTBLUE,pix,0);**

**printline(x+1\*pix,y-2\*pix,1,7,0,LIGHTBLUE,pix,0);**

**printline(x+9\*pix,y-2\*pix,1,2,0,LIGHTBLUE,pix,0);**

**printline(x+2\*pix,y-3\*pix,1,5,0,LIGHTBLUE,pix,0);**

**printline(x+3\*pix,y-4\*pix,1,3,0,LIGHTBLUE,pix,0);**

**}**

**void put\_sun(int x,int y,int pix,int COLOR)**

**{**

**printline(x+1\*pix,y,1,3,0,COLOR,pix,0);**

**printline(x,y+1\*pix,1,5,0,COLOR,pix,0);**

**printline(x,y+2\*pix,1,5,0,COLOR,pix,0);**

**printline(x,y+3\*pix,1,5,0,COLOR,pix,0);**

**printline(x+1\*pix,y+4\*pix,1,3,0,COLOR,pix,0);**

**printline(x+2\*pix,y-3\*pix,1,2,1,COLOR,pix,0);**

**printline(x+2\*pix,y+6\*pix,1,2,1,COLOR,pix,0);**

**printline(x-3\*pix,y+2\*pix,1,2,0,COLOR,pix,0);**

**printline(x+6\*pix,y+2\*pix,1,2,0,COLOR,pix,0);**

**printline(x-2\*pix,y-2\*pix,1,1,0,COLOR,pix,0);**

**printline(x-1\*pix,y-1\*pix,1,1,0,COLOR,pix,0);**

**printline(x+5\*pix,y+5\*pix,1,1,0,COLOR,pix,0);**

**printline(x+6\*pix,y+6\*pix,1,1,0,COLOR,pix,0);**

**printline(x+5\*pix,y-1\*pix,1,1,0,COLOR,pix,0);**

**printline(x+6\*pix,y-2\*pix,1,1,0,COLOR,pix,0);**

**printline(x-1\*pix,y+5\*pix,1,1,0,COLOR,pix,0);**

**printline(x-2\*pix,y+6\*pix,1,1,0,COLOR,pix,0);**

**}**

**void put\_rain(int x,int y,int pix)**

**{**

**printline(x,y,1,9,0,LIGHTBLUE,pix,0);**

**printline(x+1\*pix,y-1\*pix,1,8,0,LIGHTBLUE,pix,0);**

**printline(x+1\*pix,y-2\*pix,1,7,0,LIGHTBLUE,pix,0);**

**printline(x+2\*pix,y-3\*pix,1,5,0,LIGHTBLUE,pix,0);**

**printline(x+3\*pix,y-4\*pix,1,4,0,LIGHTBLUE,pix,0);**

**printline(x+4\*pix,y+2\*pix,1,1,0,BLUE,pix,0);**

**printline(x+3\*pix,y+3\*pix,1,1,0,BLUE,pix,0);**

**printline(x+2\*pix,y+4\*pix,1,1,0,BLUE,pix,0);**

**}**

**void put\_snow(int x,int y,int pix)**

**{**

**int pixel=1;**

**printline(x,y,1,9,0,LIGHTBLUE,pix,0);**

**printline(x+1\*pix,y-1\*pix,1,8,0,LIGHTBLUE,pix,0);**

**printline(x+1\*pix,y-2\*pix,1,7,0,LIGHTBLUE,pix,0);**

**printline(x+2\*pix,y-3\*pix,1,5,0,LIGHTBLUE,pix,0);**

**printline(x+3\*pix,y-4\*pix,1,4,0,LIGHTBLUE,pix,0);**

**printline(x+5\*pix-2\*pixel,y+2\*pix+2\*pixel,1,1,0,BLUE,pixel,0);**

**printline(x+5\*pix+2\*pixel,y+2\*pix+2\*pixel,1,1,0,BLUE,pixel,0);**

**printline(x+5\*pix-3\*pixel,y+2\*pix+3\*pixel,1,4,0,BLUE,pixel,0);**

**printline(x+5\*pix+3\*pixel,y+2\*pix+3\*pixel,1,1,0,BLUE,pixel,0);**

**printline(x+5\*pix-4\*pixel,y+2\*pix+4\*pixel,1,3,0,BLUE,pixel,0);**

**printline(x+5\*pix+1\*pixel,y+2\*pix+4\*pixel,1,4,0,BLUE,pixel,0);**

**printline(x+5\*pix-2\*pixel,y+2\*pix+5\*pixel,1,1,0,BLUE,pixel,0);**

**printline(x+5\*pix,y+2\*pix+5\*pixel,1,3,0,BLUE,pixel,0);**

**printline(x+5\*pix-4\*pixel,y+2\*pix+6\*pixel,1,4,0,BLUE,pixel,0);**

**printline(x+5\*pix+2\*pixel,y+2\*pix+6\*pixel,1,3,0,BLUE,pixel,0);**

**printline(x+5\*pix-1\*pixel,y+2\*pix+7\*pixel,1,1,0,BLUE,pixel,0);**

**printline(x+5\*pix+2\*pixel,y+2\*pix+7\*pixel,1,1,0,BLUE,pixel,0);**

**}**

**void put\_up\_arrow(int x,int y,int pix)**

**{**

**printline(x,y,1,8,0,DARKGRAY,pix,0);**

**printline(x,y-1\*pix,1,8,0,DARKGRAY,pix,0);**

**printline(x+pix\*1,y-2\*pix,1,6,0,DARKGRAY,pix,0);**

**printline(x+pix\*2,y-3\*pix,1,4,0,DARKGRAY,pix,0);**

**printline(x+pix\*3,y-4\*pix,1,2,0,DARKGRAY,pix,0);**

**}**

**void put\_down\_arrow(int x,int y,int pix)**

**{**

**printline(x,y,1,8,0,DARKGRAY,pix,0);**

**printline(x,y+1\*pix,1,8,0,DARKGRAY,pix,0);**

**printline(x+pix\*1,y+2\*pix,1,6,0,DARKGRAY,pix,0);**

**printline(x+pix\*2,y+3\*pix,1,4,0,DARKGRAY,pix,0);**

**printline(x+pix\*3,y+4\*pix,1,2,0,DARKGRAY,pix,0);**

**}**

**void put\_water(int x,int y,int COLOR,int pix)**

**{**

**printline(x+6\*pix,y+5\*pix,1,1,0,COLOR,pix,0);**

**printline(x+5\*pix,y+6\*pix,1,3,0,COLOR,pix,0);**

**printline(x+5\*pix,y+7\*pix,1,3,0,COLOR,pix,0);**

**printline(x+4\*pix,y+8\*pix,1,5,0,COLOR,pix,0);**

**printline(x+4\*pix,y+9\*pix,1,5,0,COLOR,pix,0);**

**printline(x+3\*pix,y+10\*pix,1,7,0,COLOR,pix,0);**

**printline(x+3\*pix,y+11\*pix,1,7,0,COLOR,pix,0);**

**printline(x+3\*pix,y+12\*pix,1,7,0,COLOR,pix,0);**

**printline(x+4\*pix,y+13\*pix,1,5,0,COLOR,pix,0);**

**printline(x+5\*pix,y+14\*pix,1,3,0,COLOR,pix,0);**

**}**

**/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*drone.c\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/**

**#include "public.h"**

**#include "drone.h"**

**#include "main.h"**

**void drone\_screen(int language)**

**{**

**back\_button(PAINT);**

**put\_drone2(12,140,DARKGRAY,LIGHTGRAY,15);**

**printbox(300,60,550,200,DARKGRAY,1,5,5);**

**printbox(300,260,550,400,DARKGRAY,1,5,5);**

**setfillstyle(SOLID\_FILL, WHITE);**

**bar(0, 0, 40, 40);**

**if(language == ENGLISH ){**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,4);**

**outtextxy(330,117,"CREATE");**

**outtextxy(345,317,"DRONE");**

**}**

**else if(language == CHINESE)**

**{**

**puthz(345,115,"录入无人机",32,32,DARKGRAY);**

**puthz(345,315,"管理无人机",32,32,DARKGRAY);**

**}**

**}**

**void open\_file2(int language)**

**{**

**int i;**

**clrmous(MouseX,MouseY);**

**setfillstyle(SOLID\_FILL,CYAN);**

**bar(50,50,590,415);**

**setfillstyle(SOLID\_FILL,BLUE);**

**for(i=0;i<10;i++)**

**{**

**bar(50,50+i\*30,590,50+i\*30+5);**

**}**

**bar(50,350,590,355);**

**bar(50,410,590,415);**

**bar(50,50,55,415);**

**bar(585,50,590,415);**

**bar(140,50,145,350);**

**bar(230,50,235,350);**

**bar(320,50,325,350);**

**bar(410,50,415,350);**

**bar(500,50,505,350);**

**put\_arrow(65,363,DARKGRAY,5,LEFTARROW); //(65,363,150,403)**

**put\_arrow(495,363,DARKGRAY,5,RIGHTARROW); //(495,363,580,403)**

**if(language == ENGLISH )**

**{**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,2);**

**outtextxy(65,60,"NAME");**

**outtextxy(180,60,"M");**

**outtextxy(270,60,"N");**

**outtextxy(360,60,"W");**

**outtextxy(450,60,"T");**

**outtextxy(540,60,"P");**

**}**

**else if(language == CHINESE )**

**{**

**puthz(80,60,"名称",16,16,DARKGRAY);**

**puthz(170,60,"质量",16,16,DARKGRAY);**

**puthz(260,60,"机翼",16,16,DARKGRAY);**

**puthz(350,60,"天气",16,16,DARKGRAY);**

**puthz(440,60,"时间",16,16,DARKGRAY);**

**puthz(530,60,"功率",16,16,DARKGRAY);**

**}**

**back\_button(PAINT);**

**}**

**int drone\_page(char \*username,char \*drone\_name\_now,DRONEINFO \*drone,int language)**

**{**

**struct ffblk ffblk;**

**int done;**

**int page = 0;**

**int pagemax;**

**int file\_number=0;**

**int file\_time = 0;**

**int flag;**

**int num[4];**

**int file\_flag;**

**int filenum[10];**

**int mode = 0;**

**int i=0,j=0;**

**char string[80] = "c:\\DATA\\";**

**char stringnow[80];**

**char stringall[80];**

**// char drone\_list[40][20];**

**struct droneinfo drone\_list[20];**

**char drone\_name[20];**

**FILE \*fp;**

**strcat(string,username);**

**strcat(string,"\\DRONE");**

**strcpy(stringall,string);**

**strcat(stringall,"\\\*.\*");**

**memset(drone\_list,0,sizeof(drone\_list));**

**done = findfirst(stringall,&ffblk,0);**

**while(!done)**

**{**

**// strcpy(drone\_list[i],ffblk.ff\_name);**

**strcpy(stringnow,string);**

**strcat(stringnow,"\\");**

**strcat(stringnow,ffblk.ff\_name);**

**if((fp=fopen(stringnow,"rb"))!=NULL)**

**{**

**if((fread(&drone\_list[i],sizeof(DRONEINFO),1,fp))!=1)**

**{**

**// perror("ERROR IN READING");**

**}**

**}**

**else**

**{**

**// perror("ERROR IN CREATING!");**

**}**

**fclose(fp);**

**done = findnext(&ffblk);**

**i++;**

**file\_number++;**

**}**

**memset(drone\_name,0,sizeof(drone\_name));**

**clrmous(MouseX,MouseY);**

**cleardevice();**

**put\_crop1(10,10,CROP,HEALTHY);**

**drone\_screen(language);**

**mouseinit();**

**while(1)**

**{**

**newmouse(&MouseX,&MouseY,&press);**

**if(mouse\_press(300,60,550,200)==2)**

**{**

**if(flag!=1)**

**{**

**MouseS = 1;**

**flag = 1;**

**num[1] = 1;**

**clrmous(MouseX,MouseY);**

**printbox(300,60,550,200,YELLOW,1,5,5);**

**if(language == ENGLISH ){**

**setcolor(CYAN);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,4);**

**outtextxy(330,117,"CREATE");**

**}**

**else if(language == CHINESE)**

**{**

**puthz(345,115,"录入无人机",32,32,CYAN);**

**}**

**}**

**}**

**else if(mouse\_press(300,60,550,200)==1)**

**{**

**clrmous(MouseX,MouseY);**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(300,60,550,200);**

**printbox(300,60,550,200,YELLOW,1,5,5);**

**temp\_input(drone\_name,330,117,5,33,25,WHITE,4);**

**if(strlen(drone\_name)!=0)**

**{**

**// free(drone\_list);**

**clrmous(MouseX,MouseY);**

**cleardevice();**

**MouseS = 0;**

**strcpy(drone\_name\_now,drone\_name);**

**return DRONE\_LIST;**

**}**

**}**

**else if(mouse\_press(300,260,550,400)==2)**

**{**

**if(flag!=2)**

**{**

**MouseS = 1;**

**flag = 2;**

**num[2] = 1;**

**clrmous(MouseX,MouseY);**

**printbox(300,260,550,400,YELLOW,1,5,5);**

**if(language == ENGLISH ){**

**setcolor(CYAN);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,4);**

**outtextxy(330,117,"CREATE");**

**outtextxy(345,317,"DRONE");**

**}**

**else if(language == CHINESE)**

**{**

**puthz(345,315,"管理无人机",32,32,CYAN);**

**}**

**}**

**}**

**else if(mouse\_press(300,260,550,400)==1)**

**{**

**mode = 1;**

**}**

**else if(mouse\_press(595,5,630,40)==2)**

**{**

**if(flag!=3)**

**{**

**MouseS = 1;**

**flag = 3;**

**num[3] = 1;**

**back\_button(LIGHT);**

**}**

**}**

**else if(mouse\_press(595,5,630,40)==1)**

**{**

**delay(100);**

**return HOME;**

**}**

**else**

**{**

**if(flag!=0)**

**{**

**MouseS = 0;**

**flag = 0;**

**}**

**}**

**if(flag!=1&&num[1]==1)**

**{**

**clrmous(MouseX,MouseY);**

**printbox(300,60,550,200,DARKGRAY,1,5,5);**

**if(language == ENGLISH ){**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,4);**

**outtextxy(330,117,"CREATE");**

**}**

**else if(language == CHINESE)**

**{**

**puthz(345,115,"录入无人机",32,32,DARKGRAY);**

**}**

**num[1]=0;**

**}**

**else if(flag!=2&&num[2]==1)**

**{**

**clrmous(MouseX,MouseY);**

**printbox(300,260,550,400,DARKGRAY,1,5,5);**

**if(language == ENGLISH ){**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,4);**

**outtextxy(345,317,"DRONE");**

**}**

**else if(language == CHINESE)**

**{**

**puthz(345,315,"管理无人机",32,32,DARKGRAY);**

**}**

**num[2]=0;**

**}**

**else if(flag!=3&&num[3]==1)**

**{**

**back\_button(RECOVER);**

**num[3]=0;**

**}**

**if(mode == 1)**

**{**

**clrmous(MouseX,MouseY);**

**mouseinit();**

**while(1)**

**{**

**newmouse(&MouseX,&MouseY,&press);**

**if(file\_time == 0)**

**{**

**clrmous(MouseX,MouseY);**

**cleardevice();**

**open\_file2(language);**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,2);**

**pagemax = file\_number/9;**

**if(file\_number%9==0)**

**{**

**pagemax -=1;**

**}**

**if((file\_number-9\*page)>=0)**

**{**

**clrmous(MouseX,MouseY);**

**for(i=0;i<9;i++)**

**{**

**outtextxy(60,90+i\*30,drone\_list[i+page\*9].name);**

**outtextxy(150,90+i\*30,drone\_list[i+page\*9].weight);**

**outtextxy(240,90+i\*30,drone\_list[i+page\*9].wing);**

**outtextxy(330,90+i\*30,drone\_list[i+page\*9].weather);**

**outtextxy(420,90+i\*30,drone\_list[i+page\*9].time);**

**outtextxy(510,90+i\*30,drone\_list[i+page\*9].power);**

**}**

**}**

**file\_time = 1;**

**}**

**if(mouse\_press(65,363,150,403)==2)**

**{**

**if(file\_flag!=1)**

**{**

**MouseS = 1;**

**file\_flag = 1;**

**filenum[1] = 1;**

**clrmous(MouseX,MouseY);**

**put\_arrow(65,363,YELLOW,5,LEFTARROW); //(65,363,150,403)**

**}**

**}**

**else if(mouse\_press(65,363,150,403)==1)**

**{**

**delay(50);**

**if(page>=1)**

**{**

**page--;**

**file\_time = 0;**

**}**

**}**

**else if(mouse\_press(495,363,580,403)==2)**

**{**

**if(file\_flag!=2)**

**{**

**MouseS = 1;**

**file\_flag = 2;**

**filenum[2] = 1;**

**clrmous(MouseX,MouseY);**

**put\_arrow(495,363,YELLOW,5,RIGHTARROW); //(495,363,580,403)**

**}**

**}**

**else if(mouse\_press(495,363,580,403)==1)**

**{**

**delay(50);**

**if(page<pagemax)**

**{**

**page++;**

**file\_time = 0;**

**}**

**}**

**else if(mouse\_press(595,5,630,40)==2)**

**{**

**if(file\_flag!=3)**

**{**

**MouseS = 1;**

**file\_flag = 3;**

**filenum[3] = 1;**

**clrmous(MouseX,MouseY);**

**back\_button(LIGHT);**

**}**

**}**

**else if(mouse\_press(595,5,630,40)==1)**

**{**

**return DRONE;**

**}**

**else**

**{**

**if(file\_flag!=0)**

**{**

**MouseS = 0;**

**file\_flag = 0;**

**}**

**}**

**if(file\_flag!=1&&filenum[1]==1)**

**{**

**clrmous(MouseX,MouseY);**

**put\_arrow(65,363,DARKGRAY,5,LEFTARROW);**

**filenum[1] = 0;**

**}**

**else if(file\_flag!=2&&filenum[2]==1)**

**{**

**clrmous(MouseX,MouseY);**

**put\_arrow(495,363,DARKGRAY,5,RIGHTARROW);**

**filenum[2] = 0;**

**}**

**else if(file\_flag!=3&&filenum[3]==1)**

**{**

**clrmous(MouseX,MouseY);**

**back\_button(RECOVER);**

**filenum[3] = 0;**

**}**

**}**

**}**

**}**

**}**

**/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*dronefunc.c\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/**

**#include "public.h"**

**#include "dronf.h"**

**void dronefunc\_screen(int language)**

**{**

**back\_button(PAINT);**

**put\_drone2(12,140,DARKGRAY,LIGHTGRAY,15);**

**printbox(350,30,570,90,DARKGRAY,1,5,5);**

**printbox(350,120,570,180,DARKGRAY,1,5,5);**

**printbox(350,210,570,270,DARKGRAY,1,5,5);**

**printbox(350,300,570,360,DARKGRAY,1,5,5);**

**printbox(350,390,570,450,DARKGRAY,1,5,5);**

**if(language == ENGLISH ){**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,3);**

**outtextxy(180,50," NAME");**

**outtextxy(180,140," WEIGHT");**

**outtextxy(180,230," WING");**

**outtextxy(180,320,"WEATHER ");**

**outtextxy(180,410," TIME");**

**outtextxy(87,390,"OK");**

**}**

**else if(language == CHINESE)**

**{**

**puthz(210,50,"名称",32,32,DARKGRAY);**

**puthz(210,140,"质量",32,32,DARKGRAY);**

**puthz(210,230,"机翼",32,32,DARKGRAY);**

**puthz(210,320,"天气",32,32,DARKGRAY);**

**puthz(210,410,"时间",32,32,DARKGRAY);**

**puthz(83,387,"确认",32,32,DARKGRAY);**

**}**

**printbox(35,360,185,440,DARKGRAY,1,5,5);**

**}**

**int drone\_list\_page(char \*username,DRONEINFO \*nowdrone,int language)**

**{**

**int i;**

**int flag;**

**int num[3];**

**int test[3];**

**char dronename[20];**

**char \*weather\_msgs[3]={"ALL","RAIN","SNOW"};**

**FILE \*fp;**

**int power;**

**double factor;**

**char string[80] = "c:\\DATA\\";**

**strcat(string,username);**

**strcat(string,"\\DRONE\\");**

**strcat(string,nowdrone->name);**

**strcat(string,".dat");**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,4);**

**outtextxy(360,45,nowdrone->name);**

**strcpy(dronename,nowdrone->name);**

**memset(test,0,sizeof(test));**

**memset(nowdrone->weight,0,sizeof(nowdrone->weight));**

**memset(nowdrone->time,0,sizeof(nowdrone->time));**

**memset(nowdrone->weather,0,sizeof(nowdrone->weather));**

**memset(nowdrone->wing,0,sizeof(nowdrone->wing));**

**if((fp=fopen(string,"rb"))!=NULL)**

**{**

**if((fread(nowdrone,sizeof(DRONEINFO),1,fp))!=1)**

**{**

**// perror("ERROR IN READING");**

**}**

**}**

**else**

**{**

**// perror("ERROR IN CREATING!");**

**}**

**fclose(fp);**

**dronefunc\_screen(language);**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,4);**

**outtextxy(360,135,nowdrone->weight);**

**outtextxy(360,225,nowdrone->wing);**

**outtextxy(360,315,nowdrone->weather);**

**outtextxy(360,405,nowdrone->time);**

**mouseinit();**

**while(1)**

**{**

**newmouse(&MouseX,&MouseY,&press);**

**if(mouse\_press(350,120,570,180)==2) //weight**

**{**

**if(flag!=1)**

**{**

**MouseS = 2;**

**flag = 1;**

**}**

**}**

**else if(mouse\_press(350,120,570,180)==1)**

**{**

**temp\_input(nowdrone->weight,360,135,6,33,30,WHITE,4);**

**test[0] = 1;**

**for(i=0;i<strlen(nowdrone->weight);i++)**

**{**

**if(nowdrone->weight[i]>='0'&&nowdrone->weight[i]<='9') continue;**

**else**

**{**

**clrmous(MouseX,MouseY);**

**warning("PLEASE INPUT THE NUMBER!",230,255,1);**

**memset(nowdrone->weight,0,sizeof(nowdrone->weight));**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(360,130,560,170);**

**if (language == ENGLISH)**

**{**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT, HORIZ\_DIR, 3);**

**outtextxy(180, 140, " WEIGHT");**

**}**

**else if (language == CHINESE)**

**{**

**puthz(210, 140, "质量", 32, 32, DARKGRAY);**

**}**

**test[0] = 0;**

**break;**

**}**

**}**

**if(test[0]!=0 && (atoi(nowdrone->weight)>WEIGHT\_MAX || atoi(nowdrone->weight)<WEIGHT\_MIN)&&strlen(nowdrone->weight)!=0)**

**{**

**clrmous(MouseX,MouseY);**

**warning("INPUT 30-60!",250,255,1);**

**memset(nowdrone->weight,0,sizeof(nowdrone->weight));**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(360,130,560,170);**

**if (language == ENGLISH)**

**{**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT, HORIZ\_DIR, 3);**

**outtextxy(180, 140, " WEIGHT");**

**}**

**else if (language == CHINESE)**

**{**

**puthz(210, 140, "质量", 32, 32, DARKGRAY);**

**}**

**}**

**}**

**else if(mouse\_press(350,210,570,270)==2) //wing**

**{**

**if(flag!=2)**

**{**

**MouseS = 2;**

**flag = 2;**

**}**

**}**

**else if(mouse\_press(350,210,570,270)==1)**

**{**

**temp\_input(nowdrone->wing,360,225,6,33,30,WHITE,4);**

**test[1] = 1;**

**for(i=0;i<strlen(nowdrone->wing);i++)**

**{**

**if(nowdrone->wing[i]>='0'&&nowdrone->wing[i]<='9') continue;**

**else**

**{**

**clrmous(MouseX,MouseY);**

**warning("PLEASE INPUT THE NUMBER!",230,255,1);**

**memset(nowdrone->wing,0,sizeof(nowdrone->wing));**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(360,220,560,260);**

**if (language == ENGLISH)**

**{**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT, HORIZ\_DIR, 3);**

**outtextxy(180, 230, " WING");**

**}**

**else if (language == CHINESE)**

**{**

**puthz(210, 230, "机翼", 32, 32, DARKGRAY);**

**}**

**test[1] = 0;**

**break;**

**}**

**}**

**if(test[1]!=0 && (atoi(nowdrone->wing)>WING\_MAX || atoi(nowdrone->wing)<WING\_MIN)&&strlen(nowdrone->wing)!=0)**

**{**

**clrmous(MouseX,MouseY);**

**warning("INPUT 4-8!",255,255,1);**

**memset(nowdrone->wing,0,sizeof(nowdrone->wing));**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(360,220,560,260);**

**if (language == ENGLISH)**

**{**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT, HORIZ\_DIR, 3);**

**outtextxy(180, 230, " WING");**

**}**

**else if (language == CHINESE)**

**{**

**puthz(210, 230, "机翼", 32, 32, DARKGRAY);**

**}**

**}**

**}**

**else if(mouse\_press(350,300,570,360)==2) //scale**

**{**

**if(flag!=3)**

**{**

**MouseS = 1;**

**flag = 3;**

**}**

**}**

**else if(mouse\_press(350,300,570,360)==1)**

**{**

**drop\_down\_menu(350,360,220,50,3,4,weather\_msgs,LIGHTGRAY,DARKGRAY,nowdrone->weather);**

**delay(100);**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(360,310,560,350);**

**clrmous(MouseX,MouseY);**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,4);**

**outtextxy(360,315,nowdrone->weather);**

**}**

**else if(mouse\_press(350,390,570,450)==2) //time**

**{**

**if(flag!=4)**

**{**

**MouseS = 2;**

**flag = 4;**

**}**

**}**

**else if(mouse\_press(350,390,570,450)==1)**

**{**

**temp\_input(nowdrone->time,360,405,6,33,30,WHITE,4);**

**test[2] = 1;**

**for(i=0;i<strlen(nowdrone->time);i++)**

**{**

**if(nowdrone->time[i]>='0'&&nowdrone->time[i]<='9') continue;**

**else**

**{**

**clrmous(MouseX,MouseY);**

**warning("PLEASE INPUT THE NUMBER!",230,255,1);**

**memset(nowdrone->time,0,sizeof(nowdrone->time));**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(360,400,560,440);**

**if (language == ENGLISH)**

**{**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT, HORIZ\_DIR, 3);**

**outtextxy(180, 410, " TIME");**

**}**

**else if (language == CHINESE)**

**{**

**puthz(210, 410, "时间", 32, 32, DARKGRAY);**

**}**

**test[2] = 0;**

**break;**

**}**

**}**

**if(test[2]!=0 && (atoi(nowdrone->time)>TIME\_MAX || atoi(nowdrone->time)<TIME\_MIN)&&strlen(nowdrone->time)!=0)**

**{**

**clrmous(MouseX,MouseY);**

**warning("INPUT 5-10!",255,255,1);**

**memset(nowdrone->time,0,sizeof(nowdrone->time));**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(360,400,560,440);**

**if (language == ENGLISH)**

**{**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT, HORIZ\_DIR, 3);**

**outtextxy(180, 410, " TIME");**

**}**

**else if (language == CHINESE)**

**{**

**puthz(210, 410, "时间", 32, 32, DARKGRAY);**

**}**

**}**

**}**

**else if(mouse\_press(595,5,630,40)==2)**

**{**

**if(flag!=5)**

**{**

**MouseS = 1;**

**flag = 5;**

**num[1] = 1;**

**back\_button(LIGHT);**

**}**

**}**

**else if(mouse\_press(595,5,630,40)==1)**

**{**

**clrmous(MouseX,MouseY);**

**cleardevice();**

**MouseS = 0;**

**delay(100);**

**return HOME;**

**}**

**else if(mouse\_press(35,360,185,440)==2)**

**{**

**if(flag!=6)**

**{**

**MouseS = 1;**

**flag = 6;**

**num[2] = 1;**

**clrmous(MouseX,MouseY);**

**printbox(35,360,185,440,YELLOW,1,5,5);**

**if(language == ENGLISH ){**

**setcolor(CYAN);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,3);**

**outtextxy(87,390,"OK");**

**}**

**else if(language == CHINESE)**

**{**

**puthz(87,390,"确认",32,32,CYAN);**

**}**

**}**

**}**

**else if(mouse\_press(35,360,185,440)==1)**

**{**

**if(strlen(nowdrone->name)!=0&&strlen(nowdrone->weight)!=0&&strlen(nowdrone->wing)!=0&&strlen(nowdrone->weather)!=0&&strlen(nowdrone->time)!=0)**

**{**

**clrmous(MouseX,MouseY);**

**cleardevice();**

**MouseS = 0;**

**strcpy(nowdrone->name,dronename);**

**factor = 4\*atoi(nowdrone->weight)-atoi(nowdrone->time);**

**power = (atoi(nowdrone->wing)\*100\*(factor\*log(factor)-factor)+atoi(nowdrone->time)\*atoi(nowdrone->time))/(400+2\*atoi(nowdrone->weight));**

**itoa(power,nowdrone->power,10);**

**if((fp=fopen(string,"wb"))!=NULL) //.dat .txt**

**{**

**if((fwrite(nowdrone,sizeof(DRONEINFO),1,fp))!=1)**

**{**

**// perror("ERROR IN WRITING");**

**// delay(3000);**

**// exit(1);**

**}**

**}**

**else**

**{**

**// perror("ERROR IN OPENING FILE!");**

**}**

**fclose(fp);**

**return DRONE;**

**}**

**else**

**{**

**clrmous(MouseX,MouseY);**

**warning("PLEASE FILL ALL BLANK!",230,255,1);**

**}**

**}**

**else**

**{**

**if(flag!=0)**

**{**

**MouseS = 0;**

**flag = 0;**

**}**

**}**

**if(flag!=5&&num[1]==1)**

**{**

**clrmous(MouseX,MouseY);**

**back\_button(RECOVER);**

**num[1] = 0;**

**}**

**else if(flag!=6&&num[2]==1)**

**{**

**clrmous(MouseX,MouseY);**

**printbox(35,360,185,440,DARKGRAY,1,5,5);**

**if(language == ENGLISH )**

**{**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,3);**

**outtextxy(87,390,"OK");**

**}**

**else if(language == CHINESE)**

**{**

**puthz(87,390,"确认",32,32,DARKGRAY);**

**}**

**num[2] = 0;**

**}**

**}**

**}**

**/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*field.c\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/**

**#include "public.h"**

**#include "field.h"**

**#include "main.h"**

**void field\_screen( int record[21][26] ,char \*now\_field,int language)**

**{**

**paint\_field(record , now\_field , language );**

**back\_button(PAINT);**

**put\_field(25,50,LIGHTGRAY,DARKGRAY,5);**

**put\_sprout(25,150,DARKGRAY,5);**

**put\_house(25,250,DARKGRAY,LIGHTGRAY,5);**

**}**

**int field\_page(INFO\* temp,char\* now\_field,int language)**

**{**

**int i;**

**int record[21][26];**

**int flag = 0;**

**int num[5];**

**char string[80] = "c:\\DATA\\";**

**FILE\* fp;**

**memset(record,0,sizeof(record));**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(0,0,100,480);**

**if(strlen(now\_field)!=0)**

**{**

**strcat(string,temp->name);**

**strcat(string,"\\");**

**strcat(string,"FIELD\\");**

**strcat(string,now\_field);**

**strcat(string,".dat");**

**if ( (fp = fopen(string,"rb")) != NULL )**

**{**

**for(i=0; i<21 ;i++ )**

**{**

**fread( record[i],sizeof(int), 26 ,fp);**

**}**

**}**

**else**

**{**

**// perror("error in opening fieldfile!");**

**}**

**fclose(fp);**

**}**

**field\_screen(record,now\_field,language);**

**mouseinit();**

**while(1)**

**{**

**newmouse(&MouseX,&MouseY,&press);**

**if(mouse\_press(25,50,70,95)==2) //绘制农田未点击**

**{**

**if(flag!=1)**

**{**

**clrmous(MouseX,MouseY);**

**put\_field(25,50,GREEN,BROWN,5);**

**MouseS = 1;**

**flag = 1;**

**num[1]=1;**

**}**

**}**

**else if(mouse\_press(25,150,70,195)==2)//放置农作物位置未点击**

**{**

**if(flag!=2)**

**{**

**clrmous(MouseX,MouseY);**

**put\_sprout(25,150,GREEN,5);**

**MouseS = 1;**

**flag = 2;**

**num[2]=1;**

**}**

**}**

**else if(mouse\_press(25,250,70,295)==2)//放置无人机位置未点击**

**{**

**if(flag!=3)**

**{**

**clrmous(MouseX,MouseY);**

**put\_house(25,250,BROWN,CYAN,5);**

**MouseS = 1;**

**flag = 3;**

**num[3]=1;**

**}**

**}**

**else if(mouse\_press(595,5,630,40)==2)//退出键未点击**

**{**

**if(flag!=4)**

**{**

**back\_button(LIGHT);**

**MouseS = 1;**

**flag = 4;**

**num[4]=1;**

**}**

**}**

**else**

**{**

**MouseS = 0;**

**flag = 0;**

**}**

**if(mouse\_press(25,50,70,95)==1) //绘制农田点击**

**{**

**clrmous(MouseX,MouseY);**

**cleardevice();**

**return DRAW\_FIELD;**

**}**

**else if(mouse\_press(25,150,70,195)==1)**

**{**

**clrmous(MouseX,MouseY);**

**cleardevice();**

**return PLANT;**

**}**

**else if(mouse\_press(25,250,70,295)==1)**

**{**

**clrmous(MouseX,MouseY);**

**cleardevice();**

**return HOUSE;**

**}**

**else if(mouse\_press(595,5,630,40)==1)**

**{**

**cleardevice();**

**delay(100);**

**return HOME;**

**}**

**if(flag!=1&&num[1]==1)**

**{**

**clrmous(MouseX,MouseY);**

**put\_field(25,50,LIGHTGRAY,DARKGRAY,5);**

**num[1]=0;**

**}**

**else if(flag!=2&&num[2]==1)**

**{**

**clrmous(MouseX,MouseY);**

**put\_sprout(25,150,LIGHTGRAY,5);**

**num[2]=0;**

**}**

**else if(flag!=3&&num[3]==1)**

**{**

**clrmous(MouseX,MouseY);**

**put\_house(25,250,DARKGRAY,LIGHTGRAY,5);**

**num[3]=0;**

**}**

**else if(flag!=4&&num[4]==1)**

**{**

**back\_button(RECOVER);**

**num[4]=0;**

**}**

**}**

**}**

**/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*fieldfunc.c\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/**

**#include "public.h"**

**#include "fief.h"**

**#include "main.h"**

**void draw\_field\_screen(int record[21][26] ,char \*now\_field,int language)**

**{**

**back\_button(PAINT);**

**paint\_field(record , now\_field , language );**

**put\_pencil(12,50,DARKGRAY,DARKGRAY,LIGHTGRAY,5);**

**put\_rubber(12,150,DARKGRAY,5);**

**put\_file(12,340,DARKGRAY,LIGHTGRAY,5); //260**

**put\_water(12,230,DARKGRAY,5);**

**}**

**void open\_file(int language)**

**{**

**clrmous(MouseX,MouseY);**

**setfillstyle(SOLID\_FILL,LIGHTBLUE);**

**bar(110,50,630,400);**

**printline(110,50,1,104,0,BLUE,5,0);**

**printline(110,395,1,104,0,BLUE,5,0);**

**printline(110,50,1,70,1,BLUE,5,0);**

**printline(625,50,1,70,1,BLUE,5,0);**

**printline(110,95,1,104,0,BLUE,5,0);**

**printline(110,145,1,104,0,BLUE,5,0);**

**printline(110,195,1,104,0,BLUE,5,0);**

**printline(110,245,1,104,0,BLUE,5,0);**

**printline(110,295,1,104,0,BLUE,5,0);**

**printline(110,345,1,104,0,BLUE,5,0);**

**printline(110,395,1,104,0,BLUE,5,0);**

**if(language == ENGLISH ){**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,4);**

**setcolor(DARKGRAY);**

**outtextxy(118,65,"CREATE A FIELD.");**

**}**

**else if(language == CHINESE)**

**{**

**puthz(118,63,"创造一个新农田",32,32,DARKGRAY);**

**}**

**put\_arrow(120,353,DARKGRAY,5,1);**

**put\_arrow(540,353,DARKGRAY,5,2);**

**}**

**int draw\_field\_page(char \*name,char \*now\_field,int language)**

**{**

**struct ffblk ffblk;**

**int done;**

**char fieldfilename[60][20];**

**int record[21][26];**

**int mode = 0;**

**int filetime = 1,file\_number=0;**

**int num[5];**

**int filenum[5];**

**int flag = 0;**

**int pencil\_flag = 0,rubber\_flag = 0,file\_flag = 0,water\_flag=0;**

**int (\*precord)[26] = record;**

**int i=0;**

**int page=0,pagemax=0;**

**FILE \*fp;**

**char string[80] = "c:\\DATA\\";**

**char stringall[80],stringnow[80];**

**char filename[80];**

**char null[80] = {'\0'};**

**strcat(string,name);**

**strcat(string,"\\FIELD");**

**memset(record , 0 , sizeof(record));**

**if(access(string,0)==-1) //协助创建农田文件夹**

**{**

**if(mkdir(string)!=0)**

**{**

**// perror("ERROR IN BUILDING THE FIELD PACKAGE!");**

**// delay(2000);**

**// exit(1);**

**}**

**}**

**clrmous(MouseX,MouseY);**

**cleardevice();**

**if(strlen(now\_field)!=0)**

**{**

**strcpy(stringnow,string);**

**strcat(stringnow,"\\");**

**strcat(stringnow,now\_field);**

**if ( (fp = fopen(stringnow,"rb")) != NULL )**

**{**

**for(i=0; i<21 ;i++ )**

**{**

**fread( record[i],sizeof(int), 26 ,fp);**

**}**

**}**

**else**

**{**

**// perror("error in opening fieldfile!");**

**}**

**fclose(fp);**

**}**

**paint\_field(record ,now\_field,language);**

**draw\_field\_screen(record , now\_field , language);**

**mouseinit();**

**while(1)**

**{**

**newmouse(&MouseX,&MouseY,&press);**

**if(mouse\_press(12,50,77,115)==2) //铅笔不点击**

**{**

**if(flag!=1)**

**{**

**MouseS = 1;**

**flag = 1;**

**num[1] = 1;**

**clrmous(MouseX,MouseY);**

**put\_pencil(12,50,DARKGRAY,BROWN,LIGHTGRAY,5);**

**}**

**}**

**else if(mouse\_press(12,50,77,115)==1) //铅笔点击**

**{**

**mode = 1;**

**MouseS = 0;**

**clrmous(MouseX,MouseY);**

**}**

**else if(mouse\_press(12,150,77,215)==2) //橡皮不点击**

**{**

**if(flag!=2)**

**{**

**MouseS = 1;**

**flag = 2;**

**num[2] =1;**

**clrmous(MouseX,MouseY);**

**put\_rubber(12,150,LIGHTGRAY,5);**

**}**

**}**

**else if(mouse\_press(12,150,77,215)==1) //橡皮点击**

**{**

**mode = 2;**

**MouseS = 0;**

**clrmous(MouseX,MouseY);**

**}**

**else if(mouse\_press(22,250,62,305)==2)**

**{**

**if(flag!=5)**

**{**

**MouseS = 1;**

**flag = 5;**

**num[5]=1;**

**clrmous(MouseX,MouseY);**

**put\_water(12,230,BLUE,5);**

**}**

**}**

**else if(mouse\_press(22,250,62,305)==1)**

**{**

**mode = 4;**

**MouseS = 0;**

**clrmous(MouseX,MouseY);**

**}**

**else if(mouse\_press(12,340,77,390)==2) //文件夹未点击**

**{**

**if(flag!=3)**

**{**

**MouseS = 1;**

**flag = 3;**

**num[3]=1;**

**clrmous(MouseX,MouseY);**

**put\_file(12,340,BLUE,LIGHTBLUE,5);**

**}**

**}**

**else if(mouse\_press(12,340,77,390)==1) //文件夹点击**

**{**

**mode =3;**

**MouseS = 0;**

**clrmous(MouseX,MouseY);**

**}**

**else if(mouse\_press(595,5,630,40)==2) //退出未点击**

**{**

**if(flag!=4)**

**{**

**MouseS = 1;**

**flag = 4;**

**num[4] =1;**

**clrmous(MouseX,MouseY);**

**back\_button(LIGHT);**

**}**

**}**

**else if(mouse\_press(595,5,630,40)==1) //退出点击**

**{**

**clrmous(MouseX,MouseY);**

**return FIELD;**

**}**

**else**

**{**

**if(flag!=0)**

**{**

**MouseS = 0;**

**flag = 0;**

**}**

**}**

**if(flag!=1&&num[1]==1)**

**{**

**clrmous(MouseX,MouseY);**

**put\_pencil(12,50,DARKGRAY,DARKGRAY,LIGHTGRAY,5);**

**num[1] = 0;**

**}**

**else if(flag!=2&&num[2]==1)**

**{**

**clrmous(MouseX,MouseY);**

**put\_rubber(12,150,DARKGRAY,5);**

**num[2] = 0;**

**}**

**else if(flag!=3&&num[3]==1)**

**{**

**clrmous(MouseX,MouseY);**

**put\_file(12,340,DARKGRAY,LIGHTGRAY,5);**

**num[3] = 0;**

**}**

**else if(flag!=4&&num[4]==1)**

**{**

**clrmous(MouseX,MouseY);**

**back\_button(RECOVER);**

**num[4] = 0;**

**}**

**else if(flag!=5&&num[5]==1)**

**{**

**clrmous(MouseX,MouseY);**

**put\_water(12,230,DARKGRAY,5);**

**num[5] = 0;**

**}**

**if(mode ==1) //mode1代表画图模式**

**{**

**put\_pencil(12,50,DARKGRAY,BROWN,LIGHTGRAY,5);**

**put\_ok\_button(PAINT);**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(595,5,630,40);**

**while(1)**

**{**

**newmouse(&MouseX,&MouseY,&press);**

**if(mouse\_press(110,50,630,470)==2) //处于画图区域，但未点击**

**{**

**if(pencil\_flag!=1)**

**{**

**MouseS = mode+3;**

**pencil\_flag = 1;**

**}**

**}**

**else if(mouse\_press(110,50,630,470)==1) //处于画图区域并且点击**

**{**

**clrmous(MouseX,MouseY);**

**setfillstyle(SOLID\_FILL,DARKGRAY);**

**bar(110+20\*((MouseX - 110)/20),470-20\*((470-MouseY)/20+1),110+20\*((MouseX - 110)/20)+20,470-20\*((470-MouseY)/20+1)+20);**

**record[(470-MouseY)/20][(MouseX - 110)/20] = 1;**

**}**

**else if(mouse\_press(5,400,95,470)==2) //处于ok区域未点击**

**{**

**if(pencil\_flag!=2)**

**{**

**MouseS = 1;**

**pencil\_flag = 2;**

**put\_ok\_button(LIGHT);**

**}**

**}**

**else if(mouse\_press(5,400,95,470)==1) //处于ok区域并且点击**

**{**

**MouseS = 0;**

**mode = 0;**

**strcpy(stringnow,string);**

**strcat(stringnow,"\\");**

**strcat(stringnow,now\_field);**

**if((fp = fopen(stringnow,"wb"))!=NULL)**

**{**

**for(i=0;i<21;i++)**

**{**

**fwrite(precord[i],sizeof(int),26,fp);**

**}**

**}**

**else**

**{**

**// perror("ERROR IN RECORDING!");**

**}**

**fclose(fp);**

**clrmous(MouseX,MouseY);**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(0,0,95,480);**

**break;**

**}**

**else**

**{**

**if(pencil\_flag!=0)**

**{**

**MouseS = 0;**

**pencil\_flag = 0;**

**put\_ok\_button(RECOVER);**

**}**

**}**

**}**

**return DRAW\_FIELD;**

**}**

**if(mode ==2) //mode2代表擦除模式**

**{**

**put\_rubber(12,150,LIGHTGRAY,5);**

**put\_ok\_button(PAINT);**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(595,5,630,40);**

**while(1)**

**{**

**newmouse(&MouseX,&MouseY,&press);**

**if(mouse\_press(110,50,630,470)==2) //处于画图区域，但未点击**

**{**

**if(rubber\_flag!=1)**

**{**

**MouseS = mode+3;**

**rubber\_flag = 1;**

**}**

**}**

**else if(mouse\_press(110,50,630,470)==1) //处于画图区域并且点击**

**{**

**clrmous(MouseX,MouseY);**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(110+20\*((MouseX - 110)/20),470-20\*((470-MouseY)/20+1),110+20\*((MouseX - 110)/20)+20,470-20\*((470-MouseY)/20+1)+20);**

**setcolor(DARKGRAY);**

**setlinestyle(DOTTED\_LINE,0,NORM\_WIDTH);**

**line(110+20\*((MouseX - 110)/20),470-20\*((470-MouseY)/20+1),110+20\*((MouseX - 110)/20),470-20\*((470-MouseY)/20+1)+20);**

**line(110+20\*((MouseX - 110)/20),470-20\*((470-MouseY)/20+1),110+20\*((MouseX - 110)/20)+20,470-20\*((470-MouseY)/20+1));**

**line(110+20\*((MouseX - 110)/20),470-20\*((470-MouseY)/20+1)+20,110+20\*((MouseX - 110)/20)+20,470-20\*((470-MouseY)/20+1)+20);**

**line(110+20\*((MouseX - 110)/20)+20,470-20\*((470-MouseY)/20+1)+20,110+20\*((MouseX - 110)/20)+20,470-20\*((470-MouseY)/20+1));**

**record[(470-MouseY)/20][(MouseX - 110)/20] = 0;**

**}**

**else if(mouse\_press(5,400,95,470)==2) //处于ok区域未点击**

**{**

**if(rubber\_flag!=2)**

**{**

**MouseS = 1;**

**rubber\_flag = 2;**

**put\_ok\_button(LIGHT);**

**}**

**}**

**else if(mouse\_press(5,400,95,470)==1) //处于ok区域并且点击**

**{**

**MouseS = 0;**

**mode = 0;**

**strcpy(stringnow,string);**

**strcat(stringnow,"\\");**

**strcat(stringnow,now\_field);**

**if((fp = fopen(stringnow,"wb"))!=NULL)**

**{**

**for(i=0;i<21;i++)**

**{**

**fwrite(precord[i],sizeof(int),26,fp);**

**}**

**}**

**else**

**{**

**// perror("ERROR IN RECORDING!");**

**}**

**fclose(fp);**

**clrmous(MouseX,MouseY);**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(0,0,95,480);**

**break;**

**}**

**else**

**{**

**if(rubber\_flag!=0)**

**{**

**MouseS = 0;**

**rubber\_flag = 0;**

**put\_ok\_button(RECOVER);**

**}**

**}**

**}**

**return DRAW\_FIELD;**

**}**

**if(mode == 3)**

**{**

**open\_file(language);**

**put\_arrow(120,353,DARKGRAY,5,1);**

**put\_arrow(540,353,DARKGRAY,5,2);**

**put\_file(12,340,BLUE,LIGHTBLUE,5);**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(595,5,630,40);**

**strcpy(stringall,string);**

**strcat(stringall,"\\\*.\*");**

**memset(fieldfilename,0,sizeof(fieldfilename));**

**while(1)**

**{**

**newmouse(&MouseX,&MouseY,&press);**

**if(filetime == 1)**

**{**

**file\_number = 0;**

**i=0;**

**done = findfirst(stringall,&ffblk,0);**

**while(!done)**

**{**

**strcpy(fieldfilename[i],ffblk.ff\_name);**

**string\_limitation(fieldfilename[i],15);**

**done = findnext(&ffblk);**

**i++;**

**file\_number++;**

**}**

**open\_file(language);**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,4);**

**pagemax = file\_number/5;**

**if(file\_number%5==0)**

**{**

**pagemax -=1;**

**}**

**if((file\_number-5\*page)>=0)**

**{**

**for(i=0;i<5;i++)**

**{**

**clrmous(MouseX,MouseY);**

**outtextxy(118,60+50\*(i+1),fieldfilename[i+page\*5]);**

**}**

**}**

**filetime = 0;**

**}**

**if(mouse\_press(115,55,625,95)==2) //创建农田未点击**

**{**

**if(file\_flag!=1)**

**{**

**MouseS = 1;**

**file\_flag = 1;**

**filenum[1] = 1;**

**clrmous(MouseX,MouseY);**

**if(language == ENGLISH ){**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,4);**

**setcolor(CYAN);**

**outtextxy(118,65,"CREATE A FIELD.");**

**}**

**else if(language == CHINESE)**

**{**

**puthz(118,63,"创造一个新农田",32,32,CYAN);**

**}**

**}**

**}**

**else if(mouse\_press(115,55,625,95)==1) //创建农田点击**

**{**

**clrmous(MouseX,MouseY);**

**setfillstyle(SOLID\_FILL,LIGHTBLUE);**

**bar(116,55,625,95);**

**temp\_input(null,118,63,15,33,25,LIGHTBLUE,4);**

**setfillstyle(SOLID\_FILL,LIGHTBLUE);**

**bar(116,55,625,95);**

**strcpy(now\_field,null);**

**if(strlen(now\_field)!=0)**

**{**

**strcpy(stringnow,string);**

**strcat(stringnow,"\\");**

**strcat(now\_field,".dat");**

**strcat(stringnow,now\_field);**

**// if((fp = fopen(stringnow,"wb"))!= NULL)**

**// {**

**// for(i=0;i<21;i++)**

**// {**

**// fwrite(precord[i],sizeof(int),26,fp);**

**// }**

**// }**

**// else**

**// {**

**// perror("ERROR IN CREATING!");**

**// delay(3000);**

**// exit(1);**

**// }**

**fopen(stringnow,"wb+");**

**fclose(fp);**

**filetime = 1;**

**return DRAW\_FIELD;**

**}**

**}**

**else if(mouse\_press(120,353,200,393)==2)**

**{**

**if(file\_flag!=2)**

**{**

**MouseS = 1;**

**file\_flag = 2;**

**filenum[2] = 1;**

**clrmous(MouseX,MouseY);**

**put\_arrow(120,353,CYAN,5,1);**

**}**

**}**

**else if(mouse\_press(120,353,200,393)==1)**

**{**

**delay(50);**

**if(page>=1)**

**{**

**page--;**

**filetime = 1;**

**}**

**}**

**else if(mouse\_press(540,353,620,393)==2)**

**{**

**if(file\_flag!=3)**

**{**

**MouseS = 1;**

**file\_flag = 3;**

**filenum[3] = 1;**

**clrmous(MouseX,MouseY);**

**put\_arrow(540,353,CYAN,5,2);**

**}**

**}**

**else if(mouse\_press(540,353,620,393)==1)**

**{**

**delay(50);**

**if(page<pagemax)**

**{**

**page++;**

**filetime = 1;**

**}**

**}**

**else if(mouse\_press(115,100,625,145)==2)**

**{**

**if(file\_flag!=4)**

**{**

**MouseS = 1;**

**file\_flag = 4;**

**filenum[4] = 1;**

**clrmous(MouseX,MouseY);**

**setcolor(CYAN);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,4);**

**outtextxy(118,60+50\*(0+1),fieldfilename[0+page\*5]);**

**}**

**}**

**else if(mouse\_press(115,100,625,145)==1)**

**{**

**strcpy(now\_field,fieldfilename[0+page\*5]);**

**clrmous(MouseX,MouseY);**

**cleardevice();**

**mode = 0;**

**return DRAW\_FIELD;**

**}**

**else if(mouse\_press(115,150,625,195)==2)**

**{**

**if(file\_flag!=5)**

**{**

**MouseS = 1;**

**file\_flag = 5;**

**filenum[5] = 1;**

**clrmous(MouseX,MouseY);**

**setcolor(CYAN);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,4);**

**outtextxy(118,60+50\*(1+1),fieldfilename[1+page\*5]);**

**}**

**}**

**else if(mouse\_press(115,150,625,195)==1)**

**{**

**strcpy(now\_field,fieldfilename[1+page\*5]);**

**clrmous(MouseX,MouseY);**

**cleardevice();**

**mode = 0;**

**return DRAW\_FIELD;**

**}**

**else if(mouse\_press(115,200,625,245)==2)**

**{**

**if(file\_flag!=6)**

**{**

**MouseS = 1;**

**file\_flag = 6;**

**filenum[6] = 1;**

**clrmous(MouseX,MouseY);**

**setcolor(CYAN);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,4);**

**outtextxy(118,60+50\*(2+1),fieldfilename[2+page\*5]);**

**}**

**}**

**else if(mouse\_press(115,200,625,245)==1)**

**{**

**strcpy(now\_field,fieldfilename[2+page\*5]);**

**clrmous(MouseX,MouseY);**

**cleardevice();**

**mode = 0;**

**return DRAW\_FIELD;**

**}**

**else if(mouse\_press(115,250,625,295)==2)**

**{**

**if(file\_flag!=7)**

**{**

**MouseS = 1;**

**file\_flag = 7;**

**filenum[7] = 1;**

**clrmous(MouseX,MouseY);**

**setcolor(CYAN);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,4);**

**outtextxy(118,60+50\*(3+1),fieldfilename[3+page\*5]);**

**}**

**}**

**else if(mouse\_press(115,250,625,295)==1)**

**{**

**strcpy(now\_field,fieldfilename[3+page\*5]);**

**clrmous(MouseX,MouseY);**

**cleardevice();**

**mode = 0;**

**return DRAW\_FIELD;**

**}**

**else if(mouse\_press(115,300,625,345)==2)**

**{**

**if(file\_flag!=8)**

**{**

**MouseS = 1;**

**file\_flag = 8;**

**filenum[8] = 1;**

**clrmous(MouseX,MouseY);**

**setcolor(CYAN);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,4);**

**outtextxy(118,60+50\*(4+1),fieldfilename[4+page\*5]);**

**}**

**}**

**else if(mouse\_press(115,300,625,345)==1)**

**{**

**strcpy(now\_field,fieldfilename[4+page\*5]);**

**clrmous(MouseX,MouseY);**

**cleardevice();**

**mode = 0;**

**return DRAW\_FIELD;**

**}**

**else if(mouse\_press(12,340,77,390)==2) //文件夹未点击**

**{**

**if(file\_flag!=9)**

**{**

**MouseS = 1;**

**file\_flag = 9;**

**filenum[9]=1;**

**clrmous(MouseX,MouseY);**

**put\_file(12,340,DARKGRAY,LIGHTGRAY,5);**

**}**

**}**

**else if(mouse\_press(12,340,77,390)==1) //文件夹点击**

**{**

**clrmous(MouseX,MouseY);**

**cleardevice();**

**mode = 0;**

**return DRAW\_FIELD;**

**}**

**else**

**{**

**if(file\_flag!=0)**

**{**

**MouseS = 0;**

**file\_flag = 0;**

**}**

**}**

**if(file\_flag!=1&&filenum[1]==1)**

**{**

**clrmous(MouseX,MouseY);**

**setcolor(DARKGRAY);**

**if(language == ENGLISH ) {**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,4);**

**setcolor(DARKGRAY);**

**outtextxy(118,65,"CREATE A FIELD.");**

**}**

**else if(language == CHINESE)**

**{**

**puthz(118,63,"创造一个新农田",32,32,DARKGRAY);**

**}**

**filenum[1]=0;**

**}**

**else if(file\_flag!=2&&filenum[2]==1)**

**{**

**clrmous(MouseX,MouseY);**

**put\_arrow(120,353,DARKGRAY,5,1);**

**filenum[2]=0;**

**}**

**else if(file\_flag!=3&&filenum[3]==1)**

**{**

**clrmous(MouseX,MouseY);**

**put\_arrow(540,353,DARKGRAY,5,2);**

**filenum[3]=0;**

**}**

**else if(file\_flag!=4&&filenum[4]==1)**

**{**

**clrmous(MouseX,MouseY);**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,4);**

**outtextxy(118,60+50\*(0+1),fieldfilename[0+page\*5]);**

**filenum[4]=0;**

**}**

**else if(file\_flag!=5&&filenum[5]==1)**

**{**

**clrmous(MouseX,MouseY);**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,4);**

**outtextxy(118,60+50\*(1+1),fieldfilename[1+page\*5]);**

**filenum[5]=0;**

**}**

**else if(file\_flag!=6&&filenum[6]==1)**

**{**

**clrmous(MouseX,MouseY);**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,4);**

**outtextxy(118,60+50\*(2+1),fieldfilename[2+page\*5]);**

**filenum[6]=0;**

**}**

**else if(file\_flag!=7&&filenum[7]==1)**

**{**

**clrmous(MouseX,MouseY);**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,4);**

**outtextxy(118,60+50\*(3+1),fieldfilename[3+page\*5]);**

**filenum[7]=0;**

**}**

**else if(file\_flag!=8&&filenum[8]==1)**

**{**

**clrmous(MouseX,MouseY);**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,4);**

**outtextxy(118,60+50\*(4+1),fieldfilename[4+page\*5]);**

**filenum[8]=0;**

**}**

**else if(file\_flag!=9&&filenum[9]==1)**

**{**

**clrmous(MouseX,MouseY);**

**put\_file(12,340,BLUE,LIGHTBLUE,5);**

**filenum[9]=0;**

**}**

**}**

**}**

**if(mode ==4) //mode4代表水源模式**

**{**

**put\_water(12,230,DARKGRAY,5);**

**put\_ok\_button(PAINT);**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(595,5,630,40);**

**while(1)**

**{**

**newmouse(&MouseX,&MouseY,&press);**

**if(mouse\_press(110,50,630,470)==2) //处于画图区域，但未点击**

**{**

**if(water\_flag!=1)**

**{**

**MouseS = mode+5;**

**water\_flag = 1;**

**}**

**}**

**else if(mouse\_press(110,50,630,470)==1) //处于画图区域并且点击**

**{**

**clrmous(MouseX,MouseY);**

**setfillstyle(SOLID\_FILL,LIGHTBLUE);**

**bar(110+20\*((MouseX - 110)/20),470-20\*((470-MouseY)/20+1),110+20\*((MouseX - 110)/20)+20,470-20\*((470-MouseY)/20+1)+20);**

**record[(470-MouseY)/20][(MouseX - 110)/20] = 2;**

**}**

**else if(mouse\_press(5,400,95,470)==2) //处于ok区域未点击**

**{**

**if(water\_flag!=2)**

**{**

**MouseS = 1;**

**water\_flag = 2;**

**put\_ok\_button(LIGHT);**

**}**

**}**

**else if(mouse\_press(5,400,95,470)==1) //处于ok区域并且点击**

**{**

**MouseS = 0;**

**mode = 0;**

**strcpy(stringnow,string);**

**strcat(stringnow,"\\");**

**strcat(stringnow,now\_field);**

**if((fp = fopen(stringnow,"wb"))!=NULL)**

**{**

**for(i=0;i<21;i++)**

**{**

**fwrite(precord[i],sizeof(int),26,fp);**

**}**

**}**

**else**

**{**

**// perror("ERROR IN RECORDING!");**

**}**

**fclose(fp);**

**clrmous(MouseX,MouseY);**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(0,0,95,480);**

**break;**

**}**

**else**

**{**

**if(pencil\_flag!=0)**

**{**

**MouseS = 0;**

**pencil\_flag = 0;**

**put\_ok\_button(RECOVER);**

**}**

**}**

**}**

**return DRAW\_FIELD;**

**}**

**}**

**}**

**void put\_ok\_button(int flag)**

**{**

**if(flag == PAINT)**

**{**

**clrmous(MouseX,MouseY);**

**printbox(5,400,95,470,DARKGRAY,1,5,5);**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,3);**

**outtextxy(30,425,"OK");**

**}**

**else if(flag == LIGHT)**

**{**

**clrmous(MouseX,MouseY);**

**printbox(5,400,95,470,YELLOW,1,5,5);**

**setcolor(CYAN);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,3);**

**outtextxy(30,425,"OK");**

**}**

**else if(flag == RECOVER)**

**{**

**put\_ok\_button(PAINT);**

**}**

**}**

**/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*flyfunc.c\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/**

**#include "public.h"**

**#include "flyfunc.h"**

**void \*drone\_buffer;**

**int drone\_flag = 0;**

**void move\_drone1(int record[21][26], int x1,int y1,int x2,int y2 )**

**{**

**int i,step;**

**double step\_x,step\_y,x,y ;**

**step = max( abs(x2-x1),abs(y2-y1));**

**if(step<1) step = 1;**

**step /= 4.5;//速度修改**

**step\_x = (x2-x1) / (float)step;**

**step\_y = (y2-y1) / (float)step;**

**x = x1;**

**y = y1;**

**for( i=0 ;i<=step ;i++)**

**{**

**save\_bk\_drone((int)x,(int)y);**

**draw\_drone(x,y);**

**delay(50);**

**clear\_drone((int)x,(int)y);**

**x += step\_x;**

**y += step\_y;**

**}**

**save\_bk\_drone((int)x,(int)y);**

**draw\_drone(x,y);**

**clear\_drone((int)x,(int)y);**

**}**

**void save\_bk\_drone(int nx, int ny)**

**{**

**int size;**

**size = imagesize(nx-10, ny-10, nx + 20, ny + 20);**

**drone\_buffer = malloc(size);**

**if (drone\_buffer != NULL)**

**getimage(nx-10, ny-10, nx + 20, ny + 20 , drone\_buffer);**

**// else**

**//printf("Error");**

**}**

**void clear\_drone(int nx, int ny)**

**{**

**if (drone\_flag == 1)**

**{**

**setwritemode(XOR\_PUT);**

**put\_drone1(nx, ny,2);**

**putimage(nx-10, ny-10, drone\_buffer, COPY\_PUT);**

**free(drone\_buffer);**

**drone\_flag = 0;**

**setwritemode(COPY\_PUT);**

**}**

**}**

**void draw\_drone(int nx, int ny)**

**{**

**if (drone\_flag == 0)**

**{**

**setwritemode(COPY\_PUT);**

**put\_drone1(nx, ny,2);**

**drone\_flag = 1;**

**}**

**}**

**int x\_record\_to\_screen(int x)**

**{**

**return 110+ x\*20 + 5 ; //110+ x\*20格子左上角x**

**}**

**int y\_record\_to\_screen(int y)**

**{**

**return 470-y\*20-20 + 5; //470-y\*20-20格子左上角y**

**}**

**void simulate( int record[21][26] ,char \*nowfield )**

**{**

**int house\_x,house\_y,house\_screen\_x,house\_screen\_y;**

**int i,j,k;**

**}**

**void simulate\_handmode(int record[21][26] , int route[100][2] )**

**{**

**int i=0;**

**while(route[i+1][0]!=-1)**

**{**

**// setfillstyle(SOLID\_FILL,LIGHTBLUE);**

**// bar(10+i\*10,10+i\*10,10+(i+1)\*10,10+(i+1)\*10);**

**move\_drone1(record,route[i][0],route[i][1],route[i+1][0],route[i+1][1]);**

**i++;**

**}**

**// setfillstyle(SOLID\_FILL,RED);**

**// bar(400,400,405,405);**

**}**

**void fly\_detect(int record[21][26] , Point start )**

**{**

**int i,j,k ;**

**Point route[200];**

**memset(route,-1,sizeof(route));**

**clrmous(MouseX,MouseY);**

**k = 0 ;**

**// i = (470-MouseY)/20;**

**// j = (MouseX - 110)/20;**

**// x = 110 + j\*20 ;**

**// y = 470-i\*20-20 ;**

**for(i=0;i<21;i++)//y**

**{**

**for(j=0;j<26;j++)//x**

**{**

**if(record[i][j] >= 10 )**

**{**

**k++ ;**

**route[k].x = 110 + j\*20 +10 ;//x**

**route[k].y = 470-i\*20-10 ;//y**

**}**

**}**

**}**

**route[0].x = start.x +10 ;**

**route[0].y = start.y + 10 ;**

**k++;**

**route[k].x = start.x +10 ;**

**route[k].y = start.y + 10 ;**

**k = 0 ;**

**while(route[k+1].x!=-1)**

**{**

**move\_drone1(record,route[k].x,route[k].y,route[k+1].x,route[k+1].y);**

**k++;**

**}**

**}**

**void fly\_spray(int record[21][26], int n )**

**{**

**int i,j,k ,t,x,y,count,flying,size,nx,ny,next\_target = 0,now\_x,now\_y,closest\_x,closest\_y;**

**double dis = 99999.99 , temp , max\_double = 99999.99 ;**

**double distance ,dx,dy,delta\_x , delta\_y ;**

**double threshold = 5.00 ;**

**int flag[21][26]; //此处内存可以通过+100节省，但是记住要还原record的值**

**Point route[5][50];**

**int num[5] , fly[5] , drone\_flag\_n[5] , drone\_if\_draw[5] ;**

**double step[5] , step\_x[5] , step\_y[5], x\_n[5] , y\_n[5];**

**void \*drone\_buffer0 ,\*drone\_buffer1 , \*drone\_buffer2, \*drone\_buffer3 ;**

**char temp\_out[20];**

**memset(route,0,sizeof(route));**

**memset(flag,0,sizeof(flag));**

**memset(num,0,sizeof(num));**

**memset(fly,0,sizeof(fly));**

**memset(drone\_flag\_n,0,sizeof(drone\_flag\_n));**

**memset(step\_x,0,sizeof(step\_x));**

**memset(step\_y,0,sizeof(step\_y));**

**memset(x\_n,0,sizeof(x\_n));**

**memset(y\_n,0,sizeof(y\_n));**

**memset(drone\_if\_draw,0,sizeof(drone\_if\_draw));**

**k = 0 ;**

**count = 0 ;**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,1);**

**//存储起点**

**for(i=0;i<21;i++)//y**

**{**

**for(j=0;j<26;j++)//x**

**{**

**x = 110 + j\*20 ;**

**y = 450 - i\*20 ;**

**if( record[i][j]>=3 && record[i][j] <= 6 && flag[i][j]!=1 ) //房子 && (!flag[i][j])**

**{**

**flag[i][j] = 1 ;**

**route[k][0].x = x ;**

**route[k][0].y = y ;**

**num[k]++ ;//num储存的就是该飞机route上实际点的个数**

**k++ ;//k:0 1 2 3**

**}**

**if((record[i][j] % 10 ) != 0 && record[i][j] >= 10) {**

**count ++ ;//多少株植物得病了**

**}**

**}**

**}**

**if(count==0) return ;**

**//计算病虫**

**while(count > 0)**

**{**

**for(k=0 ; k <= n-1 ; k++)**

**{**

**dis = max\_double ;**

**closest\_x = -1 ;**

**closest\_y = -1 ;**

**now\_x = route[k][num[k]-1].x ;**

**now\_y = route[k][num[k]-1].y ;**

**for(i=0;i<21;i++)//y**

**{**

**for(j=0;j<26;j++)//x**

**{**

**if(flag[i][j]) continue ;**

**if(record[i][j]<10 || record[i][j]>99 || record[i][j]%10 == 0) continue ;**

**x = 110 + j\*20 ;**

**y = 450 - i\*20 ;**

**temp = sqrt(fabs( (x-now\_x)\*(x-now\_x) + (y-now\_y)\*(y-now\_y) )) ;**

**if(temp < dis) {**

**dis = temp ;**

**closest\_x = x ;**

**closest\_y = y ;**

**}**

**}**

**}**

**if(dis < max\_double)**

**{**

**num[k]++; // 更新路线**

**route[k][num[k]-1].x = closest\_x;**

**route[k][num[k]-1].y = closest\_y;**

**flag[(450-closest\_y)/20 ][(closest\_x-110)/20] = 1 ;**

**count-- ;**

**}**

**if(count==0) break ;**

**}**

**}**

**//存储结尾**

**for(k = 0 ; k <= n-1 ; k++)**

**{**

**num[k]++ ;**

**route[k][num[k]-1].x = route[k][0].x;**

**route[k][num[k]-1].y = route[k][0].y;**

**}**

**flying = 0 ;**

**for( k = 0 ; k < n ; k++)**

**{**

**if( num[k] != 2 )**

**flying = 1 ;**

**}**

**if( flying == 0 )**

**return ;**

**for( k = 0 ; k < n ; k++)//step初始化 0-1**

**{**

**if(num[k]==2) continue ;**

**fly[k] = 1 ;**

**step[k] = max(abs(route[k][1].x - route[k][0].x), abs(route[k][1].y - route[k][0].y));**

**if (step[k] < 1) step[k] = 1;**

**step[k] /= 6; // 速度修改**

**step\_x[k] = (route[k][1].x - route[k][0].x) / step[k];**

**step\_y[k] = (route[k][1].y - route[k][0].y) / step[k];**

**x\_n[k] = route[k][0].x;**

**y\_n[k] = route[k][0].y;**

**}**

**flying = 1 ;**

**while(flying)**

**{**

**flying = 0 ;**

**for( k = 0 ; k < n ; k++)**

**{**

**if(num[k]==2) continue ;**

**if (fly[k] < num[k] ) //fly[k]为当前飞机已经飞过的点，fly[k]+1为下一个要飞到的点**

**{**

**flying = 1 ;**

**}**

**}**

**if(flying == 0 ) break ;**

**memset(drone\_if\_draw,0,sizeof(drone\_if\_draw));**

**for( k = 0 ; k < n ; k++)**

**{**

**if( num[k]==2 || fly[k] >= num[k] ) {**

**drone\_if\_draw[k] = 0 ;**

**continue ;**

**}**

**nx = (int)x\_n[k] ;**

**ny = (int)y\_n[k] ;**

**size = imagesize(nx-10, ny-10, nx + 10, ny + 10);//save\_bk\_drone((int)x,(int)y);**

**drone\_if\_draw[k] = 1 ;**

**if(k==0) {**

**drone\_buffer0 = malloc(size);**

**if (drone\_buffer0 != NULL)**

**getimage(nx-10, ny-10, nx + 10, ny + 10 , drone\_buffer0);**

**// else**

**//printf("Error");**

**}**

**else if(k==1) {**

**drone\_buffer1 = malloc(size);**

**if (drone\_buffer1 != NULL)**

**getimage(nx-10, ny-10, nx + 10, ny + 10 , drone\_buffer1);**

**// else**

**//printf("Error");**

**}**

**else if(k==2) {**

**drone\_buffer2 = malloc(size);**

**if (drone\_buffer2 != NULL)**

**getimage(nx-10, ny-10, nx + 10, ny + 10 , drone\_buffer2);**

**// else**

**//printf("Error");**

**}**

**else if(k==3) {**

**drone\_buffer3 = malloc(size);**

**if (drone\_buffer3 != NULL)**

**getimage(nx-10, ny-10, nx + 10, ny + 10 , drone\_buffer3);**

**// else**

**//printf("Error");**

**}**

**}**

**for( k = 0 ; k < n ; k++)**

**{**

**if( drone\_flag\_n[k] == 0 && drone\_if\_draw[k] == 1 ) //draw\_drone**

**{**

**setwritemode(COPY\_PUT);**

**put\_drone1((int)x\_n[k], (int)y\_n[k], 2);**

**drone\_flag\_n[k] = 1 ;**

**}**

**}**

**delay(150);**

**for( k = 0 ; k < n ; k++)**

**{**

**if(num[k]==2 || fly[k] >= num[k] ) continue ;**

**nx = (int)x\_n[k] ;**

**ny = (int)y\_n[k] ;**

**if(drone\_flag\_n[k] == 1 ) {**

**setwritemode(XOR\_PUT);**

**put\_drone1(nx, ny , 2);**

**if(k==0) {**

**putimage(nx-10, ny-10, drone\_buffer0, COPY\_PUT);**

**free( drone\_buffer0 );**

**}**

**else if(k==1) {**

**putimage(nx-10, ny-10, drone\_buffer1, COPY\_PUT);**

**free( drone\_buffer1 );**

**}**

**else if(k==2) {**

**putimage(nx-10, ny-10, drone\_buffer2, COPY\_PUT);**

**free( drone\_buffer2 );**

**}**

**else if(k==3) {**

**putimage(nx-10, ny-10, drone\_buffer3, COPY\_PUT);**

**free( drone\_buffer3 );**

**}**

**drone\_flag\_n[k] = 0;**

**setwritemode(COPY\_PUT);**

**}**

**}**

**flying = 1 ;**

**for( k = 0 ; k < n ; k++) //从fly[k]飞到fly[k]+1的点的过程**

**{**

**if(num[k]==2 ) continue ;**

**x\_n[k] += step\_x[k] ;**

**y\_n[k] += step\_y[k] ;**

**if(fly[k] >= num[k] ) {**

**step\_x[k] = 0;**

**step\_y[k] = 0;**

**continue ;**

**}**

**next\_target = fly[k] +1 ;//route[k][next\_target-1]为target这个点实际储存的点的位置**

**if((abs(x\_n[k]-route[k][next\_target-1].x)<=threshold) && (abs(y\_n[k]-route[k][next\_target-1].y )<=threshold ))//飞机已经飞到下一个点，更新step**

**{**

**fly[k] ++ ;**

**if( fly[k] < num[k] )**

**{**

**next\_target = fly[k] +1 ;**

**step[k] = max(abs(route[k][next\_target-1].x - (int)x\_n[k]), abs(route[k][next\_target-1].y - (int)y\_n[k]));**

**if (step[k] < 1) step[k] = 1;**

**step[k] /= 6; // 速度修改**

**step\_x[k] = (route[k][next\_target-1].x - (int)x\_n[k]) / step[k];**

**step\_y[k] = (route[k][next\_target-1].y - (int)y\_n[k]) / step[k];**

**}**

**else {**

**step\_x[k] = 0;**

**step\_y[k] = 0;**

**}**

**}**

**}**

**}**

**for(i=0;i<21;i++)//y**

**{**

**for(j=0;j<26;j++)//x**

**{**

**x = 110 + j\*20 ;**

**y = 450 - i\*20 ;**

**if((record[i][j] % 10 ) != 0 && record[i][j] >= 10) {**

**record[i][j]-- ;//喷洒了一次**

**}**

**}**

**}**

**return ;**

**}**

**double dis\_a\_to\_b(Point a ,Point b )**

**{**

**return sqrt(fabs( (a.x - b.x)\*(a.x - b.x) + (a.y - b.y )\*(a.y - b.y ) ));**

**}**

**double relative\_position(Point A ,Point B ,Point C)// 判断点C相对于直线AB的位置，返回正值表示一侧，负值表示另一侧，0表示在线上**

**{**

**return (B.x - A.x) \* (C.y - A.y) - (B.y - A.y) \* (C.x - A.x);**

**}**

**double projection(Point A, Point B, Point C)**

**{**

**double ABx,ABy,ACx,ACy,dotProduct,lenAB ;**

**ABx = B.x - A.x;**

**ABy = B.y - A.y;**

**ACx = C.x - A.x;**

**ACy = C.y - A.y;**

**dotProduct = ABx \* ACx + ABy \* ACy;// 计算向量点乘，得到投影长度**

**lenAB = sqrt(fabs(ABx \* ABx + ABy \* ABy));// AB向量长度**

**return dotProduct / lenAB;// 投影的长度**

**}**

**void fly\_one\_round(int record[21][26] , Point A)**

**{**

**Point points[100] ,B , route[100] ,T;**

**int x,y,i,j , k=0 , t=0 , positive = 0 , negative = 0 ,B\_index;**

**int flag[100];**

**double dist , dis\_max = 0 , proj[100] , temp;**

**double pos[100] ;**

**int now\_index = -1;**

**char temp\_out[20];**

**memset(points,0,sizeof(points));**

**memset(route,0,sizeof(route));**

**memset(flag,0,sizeof(flag));**

**k = 0 ;**

**for(i=0;i<21;i++)//y**

**{**

**for(j=0;j<26;j++)//x**

**{**

**x = 110 + j\*20 ;**

**y = 450 - i\*20 ;**

**if( record[i][j] >= 10 && ( record[i][j]%10 != 0 ) ) //sick**

**{**

**k++ ;**

**points[k].x = x;**

**points[k].y = y ;**

**}**

**}**

**}**

**for(i=1 ; i <= k ; i++)**

**{**

**dist = dis\_a\_to\_b(A,points[i]);**

**if(dist > dis\_max ) {**

**dis\_max = dist ;**

**B = points[i];**

**B\_index = i ;**

**}**

**}**

**positive = negative = 0 ;**

**for(i=1 ;i <= k ;i++)**

**{**

**if(i == B\_index ) {**

**pos[B\_index] = 0 ;**

**}**

**else {**

**pos[i] = relative\_position(A,B,points[i]);**

**}**

**proj[i] = projection(A,B,points[i]);**

**if(pos[i] >= 0 ) {**

**pos[i] = 1 ;**

**positive ++ ;**

**}**

**else {**

**pos[i] = -1 ;**

**negative ++ ;**

**}**

**}**

**temp = 99999.99 ;**

**t = 0 ;**

**route[t].x = A.x ;**

**route[t].y = A.y ;**

**flag[0] = 1 ;**

**now\_index = 0;**

**while( positive )**

**{**

**temp = 99999.99 ;**

**for(i=1;i<=k;i++)**

**{**

**if(pos[i] < 0 ) continue ;**

**if(flag[i]) continue ;**

**if(proj[i] < temp) {**

**temp = proj[i] ;**

**T.x = points[i].x;**

**T.y = points[i].y;**

**now\_index = i;**

**}**

**}**

**flag[now\_index] = 1;**

**t++ ;**

**route[t].x = T.x ;**

**route[t].y = T.y ;**

**positive -- ;**

**}**

**temp = 0 ;**

**while( negative )**

**{**

**temp = 0 ;**

**for(i=1;i<=k;i++)**

**{**

**if(pos[i] > 0 ) continue ;**

**if(flag[i]) continue ;**

**if(proj[i] > temp) {**

**temp = proj[i] ;**

**T.x = points[i].x;**

**T.y = points[i].y;**

**now\_index = i;**

**}**

**}**

**flag[now\_index] = 1;**

**t++ ;**

**route[t].x = T.x ;**

**route[t].y = T.y ;**

**negative -- ;**

**}**

**t++ ;**

**route[t].x = A.x ;**

**route[t].y = A.y ;**

**for(i=0;i<t;i++)**

**{**

**move\_drone1(record ,route[i].x+10,route[i].y+10,route[i+1].x+10,route[i+1].y+10) ;**

**}**

**}**

**/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*home.c\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/**

**#include "main.h"**

**#include "logs.h"**

**#include "public.h"**

**#include <dos.h>**

**#include <conio.h>**

**#include "home.h"**

**void home\_screen(int language)**

**{**

**printbox(100,90,310,190,DARKGRAY,1,5,4);**

**printbox(330,90,540,190,DARKGRAY,1,5,4);**

**printbox(100,230,310,330,DARKGRAY,1,5,4);**

**printbox(330,230,540,330,DARKGRAY,1,5,4);**

**printbox(100,370,310,470,DARKGRAY,1,5,4);**

**printbox(330,370,540,470,DARKGRAY,1,5,4);**

**if(language == ENGLISH)**

**{**

**setcolor(BLUE);**

**settextstyle(DEFAULT\_FONT , HORIZ\_DIR,3);**

**outtextxy(145,130, "FIELD");**

**outtextxy(375,130, "DRONE");**

**outtextxy(160,270, "PEST");**

**outtextxy(365,270, "DETECT");**

**outtextxy(160,410, "LOGS");**

**outtextxy(390,410, "QUIT");**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,6);**

**outtextxy(102,10,"HOMEPAGE");**

**}**

**else if(language == CHINESE)**

**{**

**puthz(170,120,"农田",32,32,BLUE);**

**puthz(390,120,"无人机",32,32,BLUE);**

**puthz(170,260,"农药",32,32,BLUE);**

**puthz(400,260,"监测",32,32,BLUE);**

**puthz(170,400,"日志",32,32,BLUE);**

**puthz(400,400,"退出",32,32,BLUE);**

**puthz(275,20,"主页",48,48,BLUE);**

**}**

**printbox(595,5,630,40,DARKGRAY,1,5,4);**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT , HORIZ\_DIR,3);**

**outtextxy(602,10, "x");**

**}**

**int home\_page(INFO \*temp,int language)**

**{**

**int flag = 0;**

**int num[8] = {0,0,0,0,0,0,0,0};**

**cleardevice();**

**setbkcolor(WHITE);**

**clrmous(MouseX,MouseY);**

**home\_screen(language);**

**mouseinit();**

**while(1)**

**{**

**newmouse(&MouseX,&MouseY,&press);**

**if(mouse\_press(100,90,310,190)==2)**

**{**

**if(flag!=1)**

**{**

**MouseS = 1;**

**flag = 1;**

**num[1] = 1;**

**home\_button\_light(flag,language);**

**}**

**}**

**else if(mouse\_press(330,90,540,190)==2)**

**{**

**if(flag!=2)**

**{**

**MouseS = 1;**

**flag = 2;**

**num[2] = 2;**

**home\_button\_light(flag,language);**

**}**

**}**

**else if(mouse\_press(100,230,310,330)==2)**

**{**

**if(flag!=3)**

**{**

**MouseS = 1;**

**flag = 3;**

**num[3] = 3;**

**home\_button\_light(flag,language);**

**}**

**}**

**else if(mouse\_press(330,230,540,330)==2)**

**{**

**if(flag!=4)**

**{**

**MouseS = 1;**

**flag = 4;**

**num[4] = 4;**

**home\_button\_light(flag,language);**

**}**

**}**

**else if(mouse\_press(100,370,310,470)==2)**

**{**

**if(flag!=5)**

**{**

**MouseS = 1;**

**flag = 5;**

**num[5] = 5;**

**home\_button\_light(flag,language);**

**}**

**}**

**else if(mouse\_press(330,370,540,470)==2)**

**{**

**if(flag!=6)**

**{**

**MouseS = 1;**

**flag = 6;**

**num[6] = 6;**

**home\_button\_light(flag,language);**

**}**

**}**

**else if(mouse\_press(595,5,630,40)==2)**

**{**

**if(flag!=7)**

**{**

**MouseS = 1;**

**flag = 7;**

**num[7] = 7;**

**back\_button(LIGHT);**

**}**

**}**

**else**

**{**

**MouseS = 0;**

**flag = 0;**

**}**

**if(mouse\_press(100,90,310,190)==1)**

**{**

**clrmous(MouseX,MouseY);**

**cleardevice();**

**return FIELD;**

**}**

**else if(mouse\_press(330,90,540,190)==1)**

**{**

**clrmous(MouseX,MouseY);**

**cleardevice();**

**return DRONE;**

**}**

**else if(mouse\_press(100,230,310,330)==1)**

**{**

**clrmous(MouseX,MouseY);**

**cleardevice();**

**return PESTICIDE;**

**}**

**else if(mouse\_press(330,230,540,330)==1)**

**{**

**clrmous(MouseX,MouseY);**

**cleardevice();**

**return DETECTOR;**

**}**

**else if(mouse\_press(100,370,310,470)==1)**

**{**

**clrmous(MouseX,MouseY);**

**return LOGS;**

**}**

**else if(mouse\_press(330,370,540,470)==1)**

**{**

**clrmous(MouseX,MouseY);**

**cleardevice();**

**return QUIT;**

**}**

**else if(mouse\_press(595,5,630,40)==1)**

**{**

**clrmous(MouseX,MouseY);**

**cleardevice();**

**return LOGIN;**

**}**

**if(flag!=1&&num[1]==1)**

**{**

**home\_button\_recovery(num[1],language);**

**num[1]=0;**

**}**

**else if(flag!=2&&num[2]==2)**

**{**

**home\_button\_recovery(num[2],language);**

**num[2]=0;**

**}**

**else if(flag!=3&&num[3]==3)**

**{**

**home\_button\_recovery(num[3],language);**

**num[3]=0;**

**}**

**else if(flag!=4&&num[4]==4)**

**{**

**home\_button\_recovery(num[4],language);**

**num[4]=0;**

**}**

**else if(flag!=5&&num[5]==5)**

**{**

**home\_button\_recovery(num[5],language);**

**num[5]=0;**

**}**

**else if(flag!=6&&num[6]==6)**

**{**

**home\_button\_recovery(num[6],language);**

**num[6]=0;**

**}**

**else if (flag != 7 && num[7] == 7)**

**{**

**back\_button(RECOVER);**

**num[7] = 0;**

**}**

**}**

**}**

**void home\_button\_light(int flag,int language)**

**{**

**clrmous(MouseX,MouseY);**

**if(language == ENGLISH)**

**{**

**if(flag==1)**

**{**

**printbox(100,90,310,190,YELLOW,1,5,4);**

**setcolor(CYAN);**

**settextstyle( DEFAULT\_FONT , HORIZ\_DIR , 3);**

**outtextxy(145,130, "FIELD");**

**}**

**else if(flag==2)**

**{**

**printbox(330,90,540,190,YELLOW,1,5,4);**

**setcolor(CYAN);**

**settextstyle( DEFAULT\_FONT , HORIZ\_DIR , 3);**

**outtextxy(375,130, "DRONE");**

**}**

**else if(flag==3)**

**{**

**printbox(100,230,310,330,YELLOW,1,5,4);**

**setcolor(CYAN);**

**settextstyle( DEFAULT\_FONT , HORIZ\_DIR , 3);**

**outtextxy(160,270, "PEST");**

**}**

**else if(flag==4)**

**{**

**printbox(330,230,540,330,YELLOW,1,5,4);**

**setcolor(CYAN);**

**settextstyle( DEFAULT\_FONT , HORIZ\_DIR , 3);**

**outtextxy(365,270, "DETECT");**

**}**

**else if(flag==5)**

**{**

**printbox(100,370,310,470,YELLOW,1,5,4);**

**setcolor(CYAN);**

**settextstyle( DEFAULT\_FONT , HORIZ\_DIR , 3);**

**outtextxy(160,410, "LOGS");**

**outtextxy(160,410, "LOGS");**

**}**

**else if(flag==6)**

**{**

**printbox(330,370,540,470,YELLOW,1,5,4);**

**setcolor(CYAN);**

**settextstyle( DEFAULT\_FONT , HORIZ\_DIR , 3);**

**outtextxy(390,410, "QUIT");**

**}**

**}**

**else if(language == CHINESE)**

**{**

**if(flag==1)**

**{**

**printbox(100,90,310,190,YELLOW,1,5,4);**

**puthz(170,120,"农田",32,32,CYAN);**

**}**

**else if(flag==2)**

**{**

**printbox(330,90,540,190,YELLOW,1,5,4);**

**puthz(390,120,"无人机",32,32,CYAN);**

**}**

**else if(flag==3)**

**{**

**printbox(100,230,310,330,YELLOW,1,5,4);**

**puthz(170,260,"农药",32,32,CYAN);**

**}**

**else if(flag==4)**

**{**

**printbox(330,230,540,330,YELLOW,1,5,4);**

**puthz(400,260,"监测",32,32,CYAN);**

**}**

**else if(flag==5)**

**{**

**printbox(100,370,310,470,YELLOW,1,5,4);**

**puthz(170,400,"日志",32,32,CYAN);**

**}**

**else if(flag==6)**

**{**

**printbox(330,370,540,470,YELLOW,1,5,4);**

**puthz(400,400,"退出",32,32,CYAN);**

**}**

**}**

**}**

**void home\_button\_recovery(int num,int language)**

**{**

**clrmous(MouseX,MouseY);**

**printbox(100,90,310,190,DARKGRAY,1,5,4);**

**printbox(330,90,540,190,DARKGRAY,1,5,4);**

**printbox(100,230,310,330,DARKGRAY,1,5,4);**

**printbox(330,230,540,330,DARKGRAY,1,5,4);**

**printbox(100,370,310,470,DARKGRAY,1,5,4);**

**printbox(330,370,540,470,DARKGRAY,1,5,4);**

**if(language == ENGLISH)**

**{**

**if(num == 1)**

**{**

**printbox(100,90,310,190,DARKGRAY,1,5,4);**

**setcolor(BLUE);**

**settextstyle(DEFAULT\_FONT , HORIZ\_DIR,3);**

**outtextxy(145,130, "FIELD");**

**}**

**else if(num == 2)**

**{**

**printbox(330,90,540,190,DARKGRAY,1,5,4);**

**setcolor(BLUE);**

**settextstyle(DEFAULT\_FONT , HORIZ\_DIR,3);**

**outtextxy(375,130, "DRONE");**

**}**

**else if(num == 3)**

**{**

**printbox(100,230,310,330,DARKGRAY,1,5,4);**

**setcolor(BLUE);**

**settextstyle(DEFAULT\_FONT , HORIZ\_DIR,3);**

**outtextxy(160,270, "PEST");**

**}**

**else if(num == 4)**

**{**

**printbox(330,230,540,330,DARKGRAY,1,5,4);**

**setcolor(BLUE);**

**settextstyle(DEFAULT\_FONT , HORIZ\_DIR,3);**

**outtextxy(365,270, "DETECT");**

**}**

**else if(num == 5)**

**{**

**printbox(100,370,310,470,DARKGRAY,1,5,4);**

**setcolor(BLUE);**

**settextstyle(DEFAULT\_FONT , HORIZ\_DIR,3);**

**outtextxy(160,410, "LOGS");**

**}**

**else if(num == 6)**

**{**

**printbox(330,370,540,470,DARKGRAY,1,5,4);**

**setcolor(BLUE);**

**settextstyle(DEFAULT\_FONT , HORIZ\_DIR,3);**

**outtextxy(390,410, "QUIT");**

**}**

**}**

**else if(language == CHINESE)**

**{**

**if(num == 1)**

**{**

**printbox(100,90,310,190,DARKGRAY,1,5,4);**

**puthz(170,120,"农田",32,32,BLUE);**

**}**

**else if(num == 2)**

**{**

**printbox(330,90,540,190,DARKGRAY,1,5,4);**

**puthz(390,120,"无人机",32,32,BLUE);**

**}**

**else if(num == 3)**

**{**

**printbox(100,230,310,330,DARKGRAY,1,5,4);**

**puthz(170,260,"农药",32,32,BLUE);**

**}**

**else if(num == 4)**

**{**

**printbox(330,230,540,330,DARKGRAY,1,5,4);**

**puthz(400,260,"监测",32,32,BLUE);**

**}**

**else if(num == 5)**

**{**

**printbox(100,370,310,470,DARKGRAY,1,5,4);**

**puthz(170,400,"日志",32,32,BLUE);**

**}**

**else if(num == 6)**

**{**

**printbox(330,370,540,470,DARKGRAY,1,5,4);**

**puthz(400,400,"退出",32,32,BLUE);**

**}**

**}**

**}**

**/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*house.c\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/**

**#include "public.h"**

**#include "house.h"**

**void house\_screen(int record[21][26] ,char \*nowfield,int language)**

**{**

**setbkcolor(WHITE);**

**cleardevice();**

**clrmous(MouseX,MouseY);**

**paint\_field(record ,nowfield,language);**

**put\_house(25,50,DARKGRAY,LIGHTGRAY,5);**

**}**

**void clear\_button(int flag)**

**{**

**if(flag == PAINT)**

**{**

**clrmous(MouseX,MouseY);**

**printbox(5,130,95,180,DARKGRAY,1,5,5);**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,2);**

**outtextxy(10,150,"CLEAR");**

**}**

**else if(flag == LIGHT)**

**{**

**clrmous(MouseX,MouseY);**

**printbox(5,130,95,180,YELLOW,1,5,5);**

**setcolor(CYAN);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,2);**

**outtextxy(10,150,"CLEAR");**

**}**

**else if(flag == RECOVER)**

**{**

**clear\_button(PAINT);**

**}**

**else if(flag == DELETE)**

**{**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(5,130,95,180);**

**}**

**}**

**int house\_page(char \*username,char \*nowfield,int language)**

**{**

**int record[21][26];**

**int housenumber = 0;**

**int flag = 0;**

**int mode = 0;**

**int num[5];**

**int house\_flag=0 ,house = 0;**

**int x,y;**

**char path[50]="C:\\DATA\\";**

**int i,j,k,t;**

**int i\_recent[10],j\_recent[10];**

**FILE \*fp;**

**memset(i\_recent,0,sizeof(i\_recent));**

**memset(j\_recent,0,sizeof(j\_recent));**

**memset(record , 0 , sizeof(record));**

**strcat(path,username);**

**strcat(path,"\\FIELD\\");**

**strcat(path,nowfield);**

**if ( (fp = fopen(path,"rb")) != NULL )**

**{**

**for(i=0; i<21 ;i++ )**

**{**

**fread( record[i],sizeof(int), 26 ,fp);**

**}**

**}**

**else**

**{**

**// perror("error in opening fieldfile!");**

**}**

**fclose(fp);**

**house\_screen( record ,nowfield,language);**

**for(i=0;i<21;i++)**

**{**

**for(j=0;j<26;j++)**

**{**

**if(record[i][j]==3)//3 -> 1**

**{**

**housenumber++;**

**i\_recent[housenumber] = i;**

**j\_recent[housenumber] = j;**

**}**

**else if(record[i][j]==4)**

**{**

**housenumber++;**

**i\_recent[housenumber] = i;**

**j\_recent[housenumber] = j;**

**}**

**else if(record[i][j]==5)**

**{**

**housenumber++;**

**i\_recent[housenumber] = i;**

**j\_recent[housenumber] = j;**

**}**

**else if(record[i][j]==6)**

**{**

**housenumber++;**

**i\_recent[housenumber] = i;**

**j\_recent[housenumber] = j;**

**}**

**}**

**}**

**mouseinit();**

**i=0;j=0;**

**while(1)**

**{**

**newmouse(&MouseX,&MouseY,&press);**

**if( mouse\_press(25,50,70,95)==2 )//房子未点击**

**{**

**if( flag!=1 )**

**{**

**MouseS = 1;**

**flag = 1;**

**num[1] = 1 ;**

**clrmous(MouseX,MouseY);**

**put\_house(25,50,BROWN,CYAN,5);**

**}**

**}**

**else if( mouse\_press(25,50,70,95)==1 ) //房子点击**

**{**

**mode = 1 ;**

**MouseS = 0;**

**clrmous(MouseX,MouseY);**

**}**

**else if( mouse\_press(595,5,630,40)==2 )//退出键未点击**

**{**

**if( flag!=2 )**

**{**

**MouseS = 1 ;**

**flag = 2 ;**

**num[2] = 1;**

**clrmous(MouseX,MouseY);**

**back\_button(LIGHT);**

**}**

**}**

**else if( mouse\_press(595,5,630,40)==1 )//退出点击**

**{**

**clrmous(MouseX,MouseY);**

**return FIELD;**

**}**

**else**

**{**

**MouseS = 0 ;**

**flag = 0 ;**

**}**

**if( flag!=1 && num[1]==1)**

**{**

**clrmous(MouseX,MouseY);**

**put\_house(25,50,DARKGRAY,LIGHTGRAY,5);**

**num[1]=0;**

**}**

**else if( flag!=2 && num[2]==1 )**

**{**

**clrmous(MouseX,MouseY);**

**back\_button(RECOVER);**

**num[2]=0;**

**}**

**if( mode==1 )**

**{**

**put\_house(25,50,BROWN,CYAN,5);**

**clear\_button(PAINT);**

**put\_ok\_button(PAINT);**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(595,5,630,40);**

**while(1)**

**{**

**newmouse(&MouseX,&MouseY,&press);**

**if( mouse\_press(110,50,630,470)==2 ) //处于画图区域，但未点击**

**{**

**if(house\_flag != 1 )**

**{**

**MouseS = 8;**

**house\_flag = 1;**

**}**

**}**

**else if( mouse\_press(110,50,630,470)==1 )//处于画图区域并且点击**

**{**

**if(housenumber >= 4) continue;**

**clrmous(MouseX,MouseY);**

**i = (470-MouseY)/20;**

**j = (MouseX - 110)/20;**

**delay(100);**

**if( record[i][j] == 1 )**

**{**

**housenumber ++;**

**x = 110+j\*20 ;**

**y = 470-i\*20-20 ;**

**put\_house(x,y,BROWN,CYAN,2);**

**record[i][j] = 2 + housenumber;//1 -> record=3**

**i\_recent[housenumber] = i ;**

**j\_recent[housenumber] = j ;**

**}**

**}**

**else if(mouse\_press(5,400,95,470)==2)//处于ok区域未点击**

**{**

**if( house\_flag != 2)**

**{**

**MouseS = 1;**

**house\_flag = 2;**

**clrmous(MouseX,MouseY);**

**put\_ok\_button(LIGHT);**

**}**

**}**

**else if( mouse\_press(5,400,95,470)==1 )//处于ok区域并且点击**

**{**

**MouseS = 0;**

**mode = 0;**

**if ( (fp = fopen(path,"wb")) != NULL )**

**{**

**for(i=0;i<21;i++)**

**{**

**fwrite(record[i],sizeof(int),26,fp);**

**}**

**}**

**else**

**{**

**// perror("error in changing record data!");**

**}**

**fclose(fp);**

**clrmous(MouseX,MouseY);**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(0,0,95,480);**

**put\_house(25,50,DARKGRAY,LIGHTGRAY,5);**

**back\_button(PAINT);**

**clear\_button(DELETE);**

**break;**

**}**

**else if( mouse\_press(5,130,95,180)==2 )//清空键未点击**

**{**

**if( house\_flag != 3 )**

**{**

**MouseS = 1 ;**

**house\_flag = 3 ;**

**num[3] = 1;**

**clrmous(MouseX,MouseY);**

**clear\_button(LIGHT);**

**}**

**}**

**else if( mouse\_press(5,130,95,180)==1 )//清空键点击**

**{**

**if( housenumber != 0 )**

**{**

**k = 1;**

**while( k <= housenumber )**

**{**

**clrmous(MouseX,MouseY);**

**x = 110+j\_recent[k]\*20 ;**

**y = 470-i\_recent[k]\*20-20 ;//左上角**

**setfillstyle(SOLID\_FILL,DARKGRAY);**

**bar(x,y,x+20,y+20);**

**i = i\_recent[k] ;**

**j = j\_recent[k] ;**

**record[i][j] = 1;**

**i\_recent[k] = 0 ;**

**j\_recent[k] = 0 ;**

**k++ ;**

**}**

**housenumber = 0;**

**}**

**}**

**else**

**{**

**if(house\_flag != 0)**

**{**

**MouseS = 0;**

**house\_flag = 0;**

**put\_ok\_button(RECOVER);**

**clear\_button(RECOVER);**

**}**

**}**

**}**

**}**

**}**

**}**

**/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*hz.c(借用)\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/**

**#include <graphics.h>**

**#include<conio.h>**

**#include<stdio.h>**

**#include<stdlib.h>**

**#include<string.h>**

**#include"hz.h"**

**/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**function name:puthz**

**description:指定位置显示文字**

**input:int x,int y,char \*s,int flag,int part,int color**

**(x,y表示输出位置坐标，s指示字符串首地址，flag表示字体大小，part为两个字之间的距离，color为颜色（枚举）)**

**return:void**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/**

**void puthz(int x, int y,char \*s,int flag,int part,int color)**

**{**

**FILE \*hzk\_p=NULL; //定义汉字库文件指针**

**unsigned char quma,weima; //定义汉字的区码和位码**

**unsigned long offset; //定义汉字在字库中的偏移量**

**unsigned char mask[] = {0x80,0x40,0x20,0x10,0x08,0x04,0x02,0x01}; //功能数组，用于显示汉字点阵中的亮点**

**int i,j,pos;**

**switch(flag) //不同的flag对应不同的汉字库，实现了汉字的大小可根据需要改变**

**{**

**case 16 :**

**{**

**char mat[32]; //16\*16的汉字需要32个字节的数组来存储**

**int y0=y;**

**int x0=x;**

**hzk\_p = fopen("HZK\\HZ16","rb"); //使用相对路径**

**if(hzk\_p==NULL)**

**{**

**settextjustify(LEFT\_TEXT,TOP\_TEXT); //左部对齐，顶部对齐**

**settextstyle(GOTHIC\_FONT,HORIZ\_DIR,1); //黑体笔划输出，水平输出，24\*24点阵**

**outtextxy(10,10,"Can't open hzk16 file!Press any key to quit...");**

**getch();**

**exit(1);**

**}**

**while(\*s!=NULL)**

**{**

**while (x<640-flag && (\*s!=NULL))**

**{**

**y=y0;**

**quma=s[0]-0xa0; //求出区码**

**weima=s[1]-0xa0; //求出位码**

**offset=(94\*(quma-1)+(weima-1))\*32L; //求出要显示的汉字在字库文件中的偏移**

**fseek(hzk\_p,offset,SEEK\_SET); //重定位文件指针**

**fread (mat,32,1,hzk\_p); //读出该汉字的具体点阵数据,1为要读入的项数**

**for(i=0;i<16;i++)**

**{**

**pos=2\*i; //16\*16矩阵中有每一行有两外字节**

**for(j=0;j<16;j++) //一行一行地扫描，将位上为了1的点显示出来**

**{**

**if((mask[j%8]&mat[pos+j/8])!=NULL) //j%8只能在0—8之间循环，j/8在0，1之间循环**

**{**

**putpixel(x+j,y,color);**

**}**

**}**

**y++;**

**}**

**/\*====================================================**

**以上是一个汉字显示完**

**====================================================\*/**

**x+=part; //给x 一个偏移量part**

**s+=2; //汉字里存放的是内码，2个字节，所以要加2**

**}**

**x=x0;y0+=flag+10; //一行汉字显示完后,重新从左侧开始输出汉字，给y一个偏移量**

**}**

**break;**

**}**

**case 24 :**

**{**

**char mat[72]; //24\*24矩阵要72个字节来存储**

**int y0=y;**

**int x0=x;**

**hzk\_p = fopen("HZK\\Hzk24k","rb");**

**if (hzk\_p==NULL)**

**{**

**settextjustify(LEFT\_TEXT,TOP\_TEXT); //左部对齐，顶部对齐**

**settextstyle(GOTHIC\_FONT,HORIZ\_DIR,3); //黑体笔划输出，水平输出，24\*24点阵**

**outtextxy(10,10,"Can't open hzk24 file!Press any key to quit...");**

**getch();**

**exit(1);**

**}**

**while(\*s!=NULL)**

**{**

**while(x<640-flag && (\*s!=NULL))**

**{**

**y=y0;**

**quma=s[0]-0xa0; //求出区码**

**weima=s[1]-0xa0; //求出位码**

**offset=(94\*(quma-1)+(weima-1))\*72L;**

**fseek(hzk\_p,offset,SEEK\_SET);**

**fread (mat,72,1,hzk\_p);**

**for (i=0;i<24;i++)**

**{**

**pos=3\*i; //矩阵中每一行有三个字节**

**for (j=0;j<24;j++) // 每一行有24位**

**{**

**if ((mask[j%8]&mat[pos+j/8])!=NULL)**

**putpixel(x+j,y,color);**

**}**

**y++;**

**}**

**x+=part;**

**s+=2;**

**}**

**x=x0;y0+=flag+10;**

**}**

**break;**

**}**

**case 32 :**

**{**

**char mat[128]; //32\*32的汉字需要128个字节的数组来存储**

**int y0=y;**

**int x0=x;**

**hzk\_p = fopen("HZK\\HZK32S","rb");**

**if(hzk\_p==NULL)**

**{**

**settextjustify(LEFT\_TEXT,TOP\_TEXT); //左部对齐，顶部对齐**

**settextstyle(GOTHIC\_FONT,HORIZ\_DIR,3); //黑体笔划输出，水平输出，24\*24点阵**

**outtextxy(10,10,"Can't open hzk32 file!Press any key to quit...");**

**getch();**

**exit(1);**

**}**

**while(\*s!=NULL)**

**{**

**while (x<640-flag && (\*s!=NULL))**

**{**

**y=y0;**

**quma=s[0]-0xa0; //求出区码**

**weima=s[1]-0xa0; //求出位码**

**offset=(94\*(quma-1)+(weima-1))\*128L;**

**fseek(hzk\_p,offset,SEEK\_SET);**

**fread (mat,128,1,hzk\_p);**

**for(i=0;i<32;i++)**

**{**

**pos=4\*i; //32\*32矩阵中有每一行有两外字节**

**for(j=0;j<32;j++)**

**{**

**if((mask[j%8]&mat[pos+j/8])!=NULL)**

**{**

**putpixel(x+j,y,color);**

**}**

**}**

**y++;**

**}**

**//以上是一个汉字显示完**

**x+=part; //给x 一个偏移量part**

**s+=2; //汉字里存放的是内码，2个字节，所以要加2**

**}**

**x=x0;y0+=flag+10; //一行汉字显示完后，给y一个偏移量**

**}**

**break;**

**}**

**case 48:**

**{**

**char mat[288]; //48\*48的汉字需要288个字节的数组来存储**

**int y0=y;**

**int x0=x;**

**hzk\_p = fopen("HZK\\Hzk48k","rb");**

**if(hzk\_p==NULL)**

**{**

**settextjustify(LEFT\_TEXT,TOP\_TEXT); //左部对齐，顶部对齐**

**settextstyle(GOTHIC\_FONT,HORIZ\_DIR,3); //黑体笔划输出，水平输出，24\*24点阵**

**outtextxy(10,10,"Can't open hzk48 file!Press any key to quit...");**

**getch();**

**exit(1);**

**}**

**while(\*s!=NULL)**

**{**

**while (x<640-flag && (\*s!=NULL))**

**{**

**y=y0;**

**quma=s[0]-0xa0; //求出区码**

**weima=s[1]-0xa0; //求出位码**

**offset=(94\*(quma-1)+(weima-1))\*288L; //求出要显示的汉字在字库文件中的偏移**

**fseek(hzk\_p,offset,SEEK\_SET); //重定位文件指针**

**fread (mat,288,1,hzk\_p); //读出该汉字的具体点阵数据,1为要读入的项数**

**for(i=0;i<48;i++)**

**{**

**pos=6\*i;**

**for(j=0;j<48;j++) //一行一行地扫描，将位上为了1的点显示出来**

**{**

**if((mask[j%8]&mat[pos+j/8])!=NULL) //j%8只能在0—8之间循环，j/8在0，1之间循环**

**{**

**putpixel(x+j,y,color);**

**}**

**}**

**y++;**

**}**

**//以上是一个汉字显示完**

**x+=part; //给x 一个偏移量part**

**s+=2; //汉字里存放的是内码，2个字节，所以要加2**

**}**

**x=x0;y0+=flag+10; //一行汉字显示完后，给y一个偏移量**

**}**

**break;**

**}**

**default:**

**break;**

**}**

**fclose(hzk\_p);**

**}**

**/\*\*\*\*\*\*\*\*\*\*\*\*\*\*language.c\*\*\*\*\*\*\*\*\*\*\*\*\*/**

**#include "langua.h"**

**#include "public.h"**

**#include "main.h"**

**int language\_page(int \*language)**

**{**

**int flag;**

**int num[3];**

**printbox(10,300,95,350,DARKGRAY,1,5,5);**

**printbox(10,380,95,430,DARKGRAY,1,5,5);**

**if((\*language) == CHINESE)**

**{**

**puthz(33,315,"中文",16,16,DARKGRAY);**

**puthz(33,395,"英文",16,16,DARKGRAY);**

**}**

**else if((\*language)==ENGLISH)**

**{**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,1);**

**outtextxy(25,320,"CHINESE");**

**outtextxy(25,400,"ENGLISH");**

**}**

**mouseinit();**

**while(1)**

**{**

**newmouse(&MouseX,&MouseY,&press);**

**if(mouse\_press(10,300,95,350)==2)**

**{**

**if (flag != 1)**

**{**

**flag =1;**

**MouseS = 1;**

**num[1] = 1;**

**clrmous(MouseX,MouseY);**

**printbox(10,300,95,350,BLUE,1,5,5);**

**if((\*language) == CHINESE)**

**{**

**puthz(33,315,"中文",16,16,YELLOW);**

**}**

**else if((\*language)==ENGLISH)**

**{**

**setcolor(YELLOW);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,1);**

**outtextxy(25,320,"CHINESE");**

**}**

**}**

**}**

**else if(mouse\_press(10,300,95,350)==1)**

**{**

**(\*language) =CHINESE;**

**clrmous(MouseX,MouseY);**

**cleardevice();**

**delay(100);**

**return HOME;**

**}**

**else if(mouse\_press(10,380,95,430)==2)**

**{**

**if(flag!=2)**

**{**

**flag =2;**

**MouseS = 1;**

**num[2] = 1;**

**printbox(10,380,95,430,BLUE,1,5,5);**

**clrmous(MouseX,MouseY);**

**if((\*language) == CHINESE)**

**{**

**puthz(33,395,"英文",16,16,CYAN);**

**}**

**else if((\*language)==ENGLISH)**

**{**

**setcolor(CYAN);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,1);**

**outtextxy(25,400,"ENGLISH");**

**}**

**}**

**}**

**else if(mouse\_press(10,380,95,430)==1)**

**{**

**(\*language) = ENGLISH;**

**clrmous(MouseX,MouseY);**

**cleardevice();**

**delay(100);**

**return HOME;**

**}**

**else**

**{**

**if(flag!=0)**

**{**

**MouseS = 0;**

**flag = 0;**

**}**

**}**

**if(flag!=1&&num[1]==1)**

**{**

**clrmous(MouseX,MouseY);**

**num[1] = 0;**

**clrmous(MouseX,MouseY);**

**printbox(10,300,95,350,DARKGRAY,1,5,5);**

**if((\*language) == CHINESE)**

**{**

**puthz(33,315,"中文",16,16,DARKGRAY);**

**}**

**else if((\*language)==ENGLISH)**

**{**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,1);**

**outtextxy(25,320,"CHINESE");**

**}**

**}**

**else if(flag!=2&&num[2]==1)**

**{**

**clrmous(MouseX,MouseY);**

**num[2] = 0;**

**clrmous(MouseX,MouseY);**

**printbox(10,300,95,350,DARKGRAY,1,5,5);**

**if((\*language) == CHINESE)**

**{**

**puthz(33,395,"英文",16,16,DARKGRAY);**

**}**

**else if((\*language)==ENGLISH)**

**{**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,1);**

**outtextxy(25,400,"ENGLISH");**

**}**

**}**

**}**

**}**

**/\*\*\*\*\*\*\*\*\*\*\*\*\*logfunc.c\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/**

**#include "public.h"**

**#include "logfunc.h"**

**int check(INFO \*user,int language)**

**{**

**char path[30]="C:\\DATA\\";**

**INFO read;**

**FILE \*fp;**

**strcat(path,user->name);**

**if(access(path,0) == -1) // 妫€鏌ユ枃浠跺す鏄惁瀛樺湪**

**{**

**if(language == ENGLISH)**

**{**

**title\_warning("User not registered!",LOGIN,language);**

**}**

**else if(language == CHINESE)**

**{**

**title\_warning("用户未注册",LOGIN,language);**

**}**

**return 0;**

**}**

**strcat(path,"\\info");**

**fp= fopen(path,"rb");**

**if(fp==NULL ) {**

**//printf("cannot open infofile.dat");**

**delay(3000);**

**exit(1);**

**}**

**if( fread(&read,sizeof(INFO),1,fp) ==1 )**

**{**

**fclose(fp);**

**if(strcmp(read.password,user->password) == 0)//瀵嗙爜鍖归厤**

**{**

**if(language == ENGLISH)**

**{**

**title\_warning("Login successfully!",0,language);**

**}**

**else if(language == CHINESE)**

**{**

**title\_warning("登录成功",0,language);**

**}**

**return 1;**

**}**

**else {**

**if(language == ENGLISH)**

**{**

**title\_warning("Password incorrect!",LOGIN,language);**

**}**

**else if(language == CHINESE)**

**{**

**title\_warning("密码错误",LOGIN,language);**

**}**

**return 0;**

**}**

**}**

**else {**

**//printf("error reading userinfo file");**

**delay(3000);**

**exit(1);**

**}**

**fclose(fp);**

**return 0;**

**}**

**void temp\_input(char \*temp,int x,int y,int maxi,int w,int h,int COLOR1,int size)**

**{**

**char t;**

**int i=0,key,j;**

**int scan\_code,ascii;**

**int cursor = 0 ;**

**clrmous(MouseX,MouseY);**

**setfillstyle(SOLID\_FILL, COLOR1);**

**setcolor(DARKGRAY);**

**setlinestyle(SOLID\_LINE, 0, NORM\_WIDTH);**

**settextstyle(DEFAULT\_FONT , HORIZ\_DIR,size);**

**settextjustify(LEFT\_TEXT, TOP\_TEXT);**

**i = strlen(temp);**

**cursor = i;**

**outtextxy(x,y,temp);**

**line(x+cursor\*w,y,x+cursor\*w,y+h);**

**while(bioskey(1))//娓呯┖閿洏缂撳啿鍖轰腑鐨勬墍鏈夋寜閿簨浠?**

**{**

**key = bioskey(0);**

**}**

**while(1)**

**{**

**key=bioskey(0);**

**ascii = key & 0x00FF;**

**scan\_code = key>>8;**

**if(scan\_code==0x4B)//宸︾澶撮敭**

**if(scan\_code==0x4B && ascii != '4')//宸︾澶撮敭**

**{**

**if( cursor>0 ) {**

**cursor--;**

**bar(x,y-5,x+maxi\*w,y+h+5);**

**outtextxy(x,y,temp);**

**line(x+cursor\*w,y,x+cursor\*w,y+h);**

**}**

**continue;**

**}**

**if(scan\_code==0x4D)//鍙崇澶撮敭**

**if(scan\_code==0x4D && ascii != '6')//鍙崇澶撮敭**

**{**

**if( cursor <i ) {**

**cursor++;**

**bar(x,y-5,x+maxi\*w,y+h+5);**

**outtextxy(x,y,temp);**

**line(x+cursor\*w,y,x+cursor\*w,y+h);**

**}**

**continue;**

**}**

**if(i < maxi)**

**{**

**if(ascii==' ' || ascii=='\n' || ascii=='\r' || ascii==27)//澶勭悊绌烘牸銆佹崲琛屻€佸洖杞﹀拰ESC閿?**

**{**

**setfillstyle(SOLID\_FILL, COLOR1);**

**bar(x+cursor\*w-1,y-5,x+cursor\*w+1,y+h+5);//娓呯┖鍏夋爣**

**break;**

**}**

**else**

**{**

**if(ascii !='\b')**

**{**

**if( i<maxi )**

**{**

**for(j=i;j>=cursor;j--) {**

**temp[j+1]=temp[j];**

**}**

**temp[cursor]=ascii;**

**cursor++;**

**i++;**

**}**

**}**

**else if(ascii=='\b')**

**{**

**if( cursor>0 ) //浠庡厜鏍囦綅缃紑濮嬪垹闄ゅ瓧绗?**

**{**

**for(j=cursor;j<i;j++) {**

**temp[j-1]=temp[j];**

**}**

**temp[i-1]='\0';**

**cursor--;**

**i--;**

**}**

**}**

**bar(x,y-5,x+maxi\*w,y+h+5);**

**outtextxy(x,y,temp);**

**line(x+cursor\*w,y,x+cursor\*w,y+h);**

**}**

**}**

**else if(i>=maxi)**

**{**

**if(ascii==' ' || ascii=='\n' || ascii=='\r' || ascii==27)//閫€鍑洪敭**

**{**

**setfillstyle(SOLID\_FILL, COLOR1);**

**bar(x+cursor\*w-1,y-5,x+cursor\*w+1,y+h+5);**

**break;**

**}**

**else**

**{**

**if(ascii=='\b' )**

**{**

**if( cursor>0 ) //浠庡厜鏍囦綅缃紑濮嬪垹闄ゅ瓧绗?**

**{**

**for(j=cursor;j<i;j++) {**

**temp[j-1]=temp[j];**

**}**

**temp[i-1]='\0';**

**cursor--;**

**i--;**

**}**

**bar(x,y-5,x+maxi\*w,y+h+5);**

**outtextxy(x,y,temp);**

**line(x+cursor\*w,y,x+cursor\*w,y+h);**

**}**

**}**

**}**

**}**

**}**

**int userinfo\_input(INFO \*user,int \*state1,int \*state2,int language)**

**{**

**//state1濮撳悕杈撳叆鐘舵€? state2瀵嗙爜杈撳叆鐘舵€?**

**int k;**

**if( \*state1==1 && \*state2==1 )**

**{**

**creat\_userinfo\_file(user);**

**clrmous(MouseX,MouseY);**

**setfillstyle(SOLID\_FILL, WHITE);**

**bar(50,70,585,130);//鏍囬娓呯┖**

**if(language == ENGLISH)**

**{**

**setcolor(BLUE);**

**settextstyle(DEFAULT\_FONT , HORIZ\_DIR,3);**

**outtextxy(70, 100, "Signed up successfully!");**

**}**

**else if(language == CHINESE)**

**{**

**puthz(80,75,"注册成功！",48,48,BLUE);**

**}**

**delay(2000);**

**return 1;**

**}**

**else**

**{**

**if(\*state1 != 1)**

**{**

**if( user\_exist\_check(user->name)==0 )//鐢ㄦ埛鍚嶆湭娉ㄥ唽杩?**

**{**

**\*state1 = 1;**

**creat\_user\_directory(user);**

**}**

**else //鐢ㄦ埛鍚嶆敞鍐岃繃**

**{**

**clrmous(MouseX,MouseY);**

**setfillstyle(SOLID\_FILL, WHITE);**

**bar(50,70,585,130);//鏍囬娓呯┖**

**if(language == ENGLISH)**

**{**

**setcolor(BLUE);**

**settextstyle(DEFAULT\_FONT , HORIZ\_DIR,3);**

**outtextxy(70, 100, "Name is repeated!");**

**}**

**else if(language == CHINESE)**

**{**

**puthz(80,75,"用户名重复",48,48,BLUE);**

**}**

**delay(2000);**

**if(user!=NULL) memset(user,0,sizeof(INFO));**

**cleardevice();**

**signup\_bkpaint(language);**

**return 0;**

**}**

**}**

**else if( \*state2!=1 )**

**{**

**k = password\_check(user->password);**

**if( k==1 ) {**

**password\_warning("too short!");**

**if(user->password != NULL) {**

**user->password[0] = '\0';//娓呯┖宸插偍瀛樼殑瀵嗙爜鍊?**

**}**

**return 0;**

**}**

**else if(k==2 || k==3) {**

**password\_warning("illegal!");**

**if(user->password != NULL) {**

**user->password[0] = '\0';**

**}**

**return 0;**

**}**

**else if( k==0 ) {**

**\*state2 = 1 ;**

**}**

**}**

**}**

**return 0;**

**}**

**void password\_warning(char \*s)**

**{**

**clrmous(MouseX,MouseY);**

**setfillstyle(SOLID\_FILL, WHITE);**

**bar(261,231,554,269);//瀵嗙爜杈撳叆妗嗘竻绌?**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT , HORIZ\_DIR,2);**

**outtextxy(275, 240, s);**

**delay(2000);**

**setfillstyle(SOLID\_FILL, WHITE);**

**bar(261,231,554,269);// 鍐嶆娓呯┖瀵嗙爜杈撳叆妗?**

**}**

**void title\_warning(char \*s,int PAGE,int language)**

**{**

**clrmous(MouseX,MouseY);**

**setfillstyle(SOLID\_FILL, WHITE);**

**bar(50,70,585,130);//鏍囬娓呯┖**

**if(language == ENGLISH)**

**{**

**setcolor(BLUE);**

**settextstyle(DEFAULT\_FONT , HORIZ\_DIR,3);**

**outtextxy(70, 100, s);**

**}**

**else if(language == CHINESE)**

**{**

**puthz(80,75,s,48,48,BLUE);**

**}**

**delay(2000);**

**if(PAGE == SIGNUP)**

**{**

**setfillstyle(SOLID\_FILL, WHITE);**

**bar(50,70,585,130);//鏍囬娓呯┖**

**if(language == ENGLISH)**

**{**

**setcolor(BLUE);**

**settextstyle(DEFAULT\_FONT , HORIZ\_DIR,3);**

**outtextxy(70, 100, "Please sign up here...");**

**}**

**else if(language == CHINESE)**

**{**

**puthz(80,75,"请在此处注册",48,48,BLUE);**

**}**

**}**

**else if(PAGE == LOGIN)**

**{**

**setfillstyle(SOLID\_FILL, WHITE);**

**bar(50,70,585,130);//鏍囬娓呯┖**

**if(language == ENGLISH)**

**{**

**setcolor(BLUE);**

**settextstyle(DEFAULT\_FONT , HORIZ\_DIR,3);**

**outtextxy(70, 100, "Please log in here...");**

**}**

**else if(language == CHINESE)**

**{**

**puthz(80,75,"请在此处登录",48,48,BLUE);**

**}**

**}**

**}**

**int password\_check(const char \*password)**

**{**

**int upper\_count = 0 ;**

**int lower\_count = 0 ;**

**int digit\_count = 0 ;**

**const char \*p;**

**if(strlen(password) <=6 ) {**

**return 1;// 妫€鏌ュ瘑鐮侀暱搴︽槸鍚﹀ぇ浜庡叚浣?**

**}**

**for( p=password ; \*p ; p++ )**

**{**

**if(\*p>='A' && \*p<='Z') {**

**upper\_count=1;**

**}**

**else if(\*p>='a' && \*p<='z') {**

**lower\_count=1;**

**}**

**else if(\*p>='0' && \*p<='9') {**

**digit\_count=1;**

**}**

**else {**

**return 2;// 濡傛灉瀛楃鏃笉鏄ぇ鍐欏瓧姣嶄篃涓嶆槸灏忓啓瀛楁瘝涔熶笉鏄暟瀛楋紝杩斿洖2**

**}**

**}**

**if((!upper\_count) || (!lower\_count) || (!digit\_count) ) {**

**return 3;**

**}**

**return 0;//鍚堟硶**

**}**

**int user\_exist\_check(const char \*username)**

**{**

**char path[50];**

**sprintf(path,"C:\\DATA\\%s",username);**

**if( access(path,0)!=-1 ){**

**return 1;//璇ョ敤鎴峰悕鐨勬枃浠跺す瀛樺湪**

**}**

**else {**

**return 0;////璇ョ敤鎴峰悕鐨勬枃浠跺す涓嶅瓨鍦?**

**}**

**}**

**void creat\_user\_directory(INFO \*user)**

**{**

**char path[30];**

**strcpy(path,"C:\\DATA\\");**

**strcat(path,user->name);**

**if(access(path,0)==-1)**

**{**

**if(mkdir(path)!=0)**

**{**

**// perror("error creat\_user\_directory !");**

**// exit(1);**

**}**

**}**

**}**

**void creat\_userinfo\_file(INFO \*user)**

**{**

**char path[30];**

**char filename[30];**

**FILE \*fp;**

**sprintf(path,"C:\\DATA\\%s",user->name);**

**if( access(path,0)==-1 ){**

**// perror("error dir didin't exist !");**

**return ;**

**}**

**sprintf(filename,"%s\\info",path);**

**fp=fopen(filename,"wb");**

**if(fp==NULL ) {**

**// perror("error file can't open !");**

**return ;**

**}**

**if(fwrite( user,sizeof(INFO),1,fp) != 1 ) {**

**// perror("error writing to file!");**

**fclose(fp);**

**return ;**

**}**

**fclose(fp);**

**}**

**/\*\*\*\*\*\*\*\*\*\*\*\*\*login.c\*\*\*\*\*\*\*\*\*\*\*\*\*/**

**#include "login.h"**

**#include "public.h"**

**#include "logfunc.h"**

**#include "main.h"**

**void login\_bkpaint(int language)//画登录页面背景**

**{**

**setbkcolor(WHITE);**

**cleardevice();**

**clrmous(MouseX,MouseY);**

**if(language == ENGLISH)**

**{**

**setcolor(BLUE);**

**settextstyle(DEFAULT\_FONT , HORIZ\_DIR,3);**

**outtextxy(70, 100, "Please log in here...");**

**settextstyle(DEFAULT\_FONT , HORIZ\_DIR,2);**

**outtextxy(250, 410, "-sign up-");**

**}**

**else if(language == CHINESE)**

**{**

**puthz(80,75,"请在此处登录",48,48,BLUE);**

**puthz(320,410,"注册",16,16,BLUE);**

**}**

**if(language == ENGLISH)**

**{**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT , HORIZ\_DIR,2);**

**outtextxy(80, 170, "user :");**

**outtextxy(80, 240, "password :");**

**}**

**else if(language == CHINESE)**

**{**

**puthz(120,165,"用户名",32,32,DARKGRAY);**

**puthz(135,235,"密码",32,32,DARKGRAY);**

**}**

**printbox(255,155,560,205,DARKGRAY,2,5,5);**

**printbox(255,225,560,275,DARKGRAY,2,5,5);**

**printbox(320-40,300,320+40,300+40,DARKGRAY,2,5,5);**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT , HORIZ\_DIR,2);**

**outtextxy(306, 312, "OK");**

**back\_button(PAINT);**

**}**

**void ok\_button\_light(void)**

**{**

**clrmous(MouseX,MouseY);**

**printbox(320-40,300,320+40,300+40,BLUE,2,5,5);**

**setcolor(BLUE);**

**settextstyle(DEFAULT\_FONT , HORIZ\_DIR,2);**

**outtextxy(306, 312, "OK");**

**}**

**void ok\_button\_recover(void)**

**{**

**clrmous(MouseX,MouseY);**

**printbox(320-40,300,320+40,300+40,DARKGRAY,2,5,5);**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT , HORIZ\_DIR,2);**

**outtextxy(306, 312, "OK");**

**}**

**void signup\_button\_recover(int language)**

**{**

**clrmous(MouseX, MouseY);**

**if(language == ENGLISH)**

**{**

**setcolor(BLUE);**

**settextstyle(DEFAULT\_FONT , HORIZ\_DIR,2);**

**outtextxy(250, 410, "-sign up-");**

**}**

**else if(language == CHINESE)**

**{**

**puthz(320,410,"注册",16,16,BLUE);**

**}**

**}**

**void signup\_button\_light(int language)**

**{**

**clrmous(MouseX,MouseY);**

**if(language == ENGLISH)**

**{**

**setcolor(CYAN);**

**settextstyle(DEFAULT\_FONT , HORIZ\_DIR,2);**

**outtextxy(250, 410, "-sign up-");**

**}**

**else if(language == CHINESE)**

**{**

**puthz(320,410,"注册",16,16,CYAN);**

**}**

**}**

**int login\_page(INFO \*temp,int language)**

**{**

**int place=0;//鼠标在的位置**

**INFO \*user = (INFO \*)malloc(sizeof(INFO));**

**// char \*path = "C:\\DATA";**

**// if(access(path,0) == -1)**

**// {**

**// ;**

**// }**

**if(user != NULL)**

**{**

**memset(user,0,sizeof(INFO));**

**}**

**login\_bkpaint(language);**

**delay(60);**

**mouseinit();**

**if(temp != NULL)**

**{**

**memset(temp,0,sizeof(INFO));**

**}**

**while(1)**

**{**

**newmouse(&MouseX, &MouseY, &press);**

**if( mouse\_press(265,405,375,425)==2 )//注册按钮未按**

**{**

**if(place == 0)**

**{**

**MouseS = 1;**

**place = 1;//signup按钮(265,405,375,425)**

**signup\_button\_light(language);**

**}**

**}**

**else if( mouse\_press(265,405,375,425)==1 )//跳转注册页面(2)**

**{**

**setbkcolor(WHITE);**

**cleardevice();**

**newmouse(&MouseX, &MouseY, &press);**

**clrmous(MouseX,MouseY);**

**return SIGHUP;**

**}**

**else if( mouse\_press(595,5,630,40)==2 )//退出按钮未按**

**{**

**MouseS = 1;**

**if( place==0 )**

**{**

**place=2;//back按钮(595,5,630,40)**

**back\_button(LIGHT);**

**}**

**}**

**else if( mouse\_press(595,5,630,40)==1 )//退出按钮按下,跳转welcome页面**

**{**

**if( user!=NULL ) {**

**free(user);**

**}**

**cleardevice();**

**return WELCOME;**

**}**

**else if( mouse\_press(280,300,360,340)==2 )//ok未按**

**{**

**if(place == 0)**

**{**

**MouseS = 1;**

**place = 3;//ok按钮(280,300,360,340)**

**ok\_button\_light();**

**}**

**}**

**else if( mouse\_press(280,300,360,340)==1 )//ok按下**

**{**

**if( user->name[0]=='\0' || user->password[0]=='\0') continue;**

**if ( check(user,language)==1 )**

**{**

**\*temp=\*user;**

**free(user);**

**delay(100);**

**return HOME;**

**}**

**}**

**else if( mouse\_press(255,155,560,205)==2 )//用户名输入框未按**

**{**

**if(place==0)**

**{**

**MouseS = 2;**

**place = 4;//用户名输入框(255,155,560,205)**

**}**

**}**

**else if( mouse\_press(255,155,560,205)==1 )//用户名输入框按下**

**{**

**temp\_input(user->name,266,170,17,16,20,WHITE,2);**

**}**

**else if( mouse\_press(255,225,560,275)==2 )//密码输入框未按**

**{**

**if(place==0)**

**{**

**MouseS = 2;**

**place = 5;//密码输入框(255,225,560,275)**

**}**

**}**

**else if( mouse\_press(255,225,560,275)==1 )//密码输入框按下**

**{**

**temp\_input(user->password,266,240,17,16,20,WHITE,2);**

**}**

**else {**

**if(place!=0)**

**{**

**MouseS=0;**

**place=0;**

**signup\_button\_recover(language);**

**ok\_button\_recover();**

**back\_button(RECOVER);**

**}**

**}**

**}**

**}**

**/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*logs.c\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/**

**#include "logs.h"**

**#include "public.h"**

**#include "home.h"**

**#include "main.h"**

**#include "draw.h"**

**#include <dos.h>**

**#include <conio.h>**

**#include <dir.h>**

**#include <fcntl.h>**

**int logs\_page(int language)**

**{**

**FILE\* filelog = NULL;**

**FILE\* fplogs = NULL;**

**static int state = SELECT\_USER; // 褰撳墠鐣岄潰鐘舵€?**

**static char currentUser[13] = { 0 }; // 褰撳墠閫変腑鐢ㄦ埛**

**static char currentCategory[13] = { 0 }; // 褰撳墠閫変腑绫诲埆**

**static char currentFile[13] = { 0 }; // 褰撳墠閫変腑鏂囦欢**

**int drawuserlist = 0; // 鏄?鍚︾粯鍒剁敤鎴峰垪琛?**

**int drawcategorylist = 0; // 鏄?鍚︾粯鍒剁被鍒?鍒楄〃**

**int drawfilelist = 0; // 鏄?鍚︾粯鍒舵枃浠跺垪琛?**

**int drawcontent = 0; // 鏄?鍚︾粯鍒舵枃浠跺唴瀹?**

**int new\_state = 0;**

**int showHomeButton = 0;**

**struct ffblk ffblk;**

**char path[128];**

**int done;**

**int returnflag = 0;**

**int selected;**

**int userCount = 0;**

**int fileCount = 0;**

**char users[MAX\_ITEMS][13] = { 0 };**

**char files[MAX\_ITEMS][13] = { 0 };**

**int record[21][26] = { 0 }; // 鍐滅敯璁板綍鏁扮粍**

**char\* nowfield; // 褰撳墠鍐滅敯鍚嶇О**

**int logsflag = 0; // 鐢ㄤ簬璁板綍绫诲埆閫夋嫨**

**//int paintfieldinlog = 0; // 鐢ㄤ簬缁樺埗鍐滅敯鐣岄潰**

**const char\* categories[] = { "DRONE", "FIELD", "PESTICIDE" };**

**delay(50);**

**//memset(record, 0, sizeof(record)); // 鍐滅敯璁板綍鏁扮粍鍒╨?€**

**clrmous(MouseX, MouseY);**

**cleardevice(); // 纭?淇濇竻灞忕敓鏁?**

**setbkcolor(WHITE); // 鏄惧紡璁剧疆鑳屾櫙鑹?**

**mouseinit();**

**// 涓诲惊鐜?**

**while (1)**

**{**

**newmouse(&MouseX, &MouseY, &press);**

**if (showHomeButton) {**

**go\_to\_home(&state);**

**if (state == SELECT\_USER) {**

**// 閲嶇疆鎵€鏈夐潤鎬佸彉閲忓拰鐣岄潰鐘舵€?**

**currentUser[0] = '\0';**

**currentCategory[0] = '\0';**

**currentFile[0] = '\0';**

**drawuserlist = 0;**

**drawcategorylist = 0;**

**drawfilelist = 0;**

**drawcontent = 0;**

**showHomeButton = 0; // 闅愯棌杩斿洖涓婚〉鎸夐挳**

**return HOME;**

**}**

**}**

**switch (state)**

**{**

**case SELECT\_USER:**

**{**

**// 鎵?鎻忕洰褰曡幏鍙栫敤鎴峰垪琛?**

**done = findfirst("C:\\DATA\\\*.\*", &ffblk, FA\_DIREC);**

**userCount = 0; // 閲嶇疆鐢ㄦ埛璁℃暟**

**delay(50);**

**while (!done && userCount < MAX\_ITEMS)**

**{**

**if ((ffblk.ff\_attrib & FA\_DIREC) && strcmp(ffblk.ff\_name, ".") && strcmp(ffblk.ff\_name, ".."))**

**{**

**strcpy(users[userCount++], ffblk.ff\_name);**

**}**

**done = findnext(&ffblk);**

**}**

**// 缁樺埗鐢ㄦ埛鍒楄〃骞惰幏鍙栭€夋嫨**

**selected = draw\_user\_list(users, userCount, language, drawuserlist);**

**if (drawuserlist == 0)**

**{**

**drawuserlist = 1;**

**}**

**if (selected != -1)**

**{**

**strncpy(currentUser, users[selected], sizeof(currentUser) - 1);**

**currentUser[sizeof(currentUser) - 1] = '\0'; // 纭?淇濈粓姝㈢??**

**delay(50);**

**state = SELECT\_CATEGORY;**

**}**

**break;**

**}**

**case SELECT\_CATEGORY:**

**{**

**// 缁樺埗鍥哄畾涓変釜绫诲埆**

**selected = draw\_category\_list(language, drawcategorylist, state);**

**logsflag = selected;**

**if (drawcategorylist == 0)**

**{**

**drawcategorylist = 1;**

**}**

**if (selected != -1)**

**{**

**strcpy(currentCategory, categories[selected]);**

**delay(50);**

**state = SELECT\_FILE;**

**}**

**break;**

**}**

**case SELECT\_FILE:**

**{**

**// 鏋勫缓璺?寰勶細C:\DATA\鐢ㄦ埛\绫诲埆\\*.dat**

**sprintf(path, "C:\\DATA\\%s\\%s\\\*.dat", currentUser, currentCategory);**

**done = findfirst(path, &ffblk, 0);**

**if (drawfilelist == 0)**

**{**

**while (!done && fileCount < MAX\_ITEMS)**

**{**

**strcpy(files[fileCount++], ffblk.ff\_name);**

**done = findnext(&ffblk);**

**}**

**}**

**// 缁樺埗鏂囦欢鍒楄〃**

**selected = draw\_file\_list(files, fileCount, language, drawfilelist);**

**if (drawfilelist == 0)**

**{**

**drawfilelist = 1;**

**}**

**if (selected != -1)**

**{**

**strcpy(currentFile, files[selected]);**

**delay(50);**

**state = SHOW\_CONTENT;**

**}**

**break;**

**}**

**case SHOW\_CONTENT:**

**{**

**// 鏋勫缓瀹屾暣鏂囦欢璺?寰?**

**sprintf(path, "C:\\DATA\\%s\\%s\\%s", currentUser, currentCategory, currentFile);**

**nowfield = currentFile; // 褰撳墠鍐滅敯鍚嶇О**

**if (drawcontent == 0)**

**{**

**if (logsflag == 1) // 濡傛灉鏄?鍐滅敯**

**{**

**paint\_field\_in\_log(record, nowfield, language, drawcontent, currentUser); // 缁樺埗鍐滅敯鐣岄潰**

**}**

**else**

**{**

**show\_file\_content(path, language, drawcontent);**

**}**

**drawcontent = 1;**

**}**

**//if(logsflag == 1) // 濡傛灉鏄?鍐滅敯**

**//{**

**// paint\_field(record, nowfield, language); // 缁樺埗鍐滅敯鐣岄潰**

**//}**

**//else**

**//{**

**// show\_file\_content(path, language, drawcontent);**

**//}**

**//paint\_field(record, nowfield, language); // 缁樺埗鍐滅敯鐣岄潰**

**//show\_file\_content(path, language, drawcontent);**

**if(drawcontent == 0)**

**{**

**drawcontent = 1;**

**}**

**showHomeButton = 1;**

**delay(50);**

**break;**

**}**

**}**

**}**

**}**

**int draw\_user\_list(const char users[][13], int count, int language, int drawuserlist)**

**{**

**int i, y;**

**if (drawuserlist == 0)**

**{**

**cleardevice();**

**clrmous(MouseX, MouseY);**

**settextstyle(DEFAULT\_FONT, HORIZ\_DIR, 3);**

**put\_flower(400, 240, 15, BLUE);**

**put\_flower(460, 300, 5, GREEN);**

**if (language == ENGLISH)**

**{**

**setcolor(BLUE);**

**outtextxy(50, 30, "Select User:");**

**}**

**else if (language == CHINESE)**

**{**

**puthz(50, 30, "选择用户", 32, 32, BLUE);**

**}**

**// 缁樺埗鐢ㄦ埛鍒楄〃**

**for (i = 0; i < count; i++)**

**{**

**y = 80 + i \* 40;**

**printbox(50, y, 50 + BTN\_WIDTH, y + BTN\_HEIGHT, DARKGRAY, 1, 4, 5);**

**outtextxy(60, y + 8, users[i]);**

**}**

**drawuserlist++;**

**}**

**// 妫€娴嬬偣鍑?**

**for (i = 0; i < count; i++)**

**{**

**y = 80 + i \* 40;**

**if (MouseX > 50 && MouseX < 50 + BTN\_WIDTH && MouseY > y && MouseY < y + BTN\_HEIGHT && mouse\_press(50, y, 50 + BTN\_WIDTH, y + BTN\_HEIGHT) == 2)**

**{**

**setcolor(CYAN);**

**printbox(50, y, 50 + BTN\_WIDTH, y + BTN\_HEIGHT, YELLOW, 1, 4, 5);**

**outtextxy(60, y + 8, users[i]);**

**}**

**if (mouse\_press(50, y, 50 + BTN\_WIDTH, y + BTN\_HEIGHT) == 0)**

**{**

**setcolor(BLUE);**

**printbox(50, y, 50 + BTN\_WIDTH, y + BTN\_HEIGHT, DARKGRAY, 1, 4, 5);**

**outtextxy(60, y + 8, users[i]);**

**}**

**if (MouseX > 50 && MouseX < 50 + BTN\_WIDTH && MouseY > y && MouseY < y + BTN\_HEIGHT && mouse\_press(50, y, 50 + BTN\_WIDTH, y + BTN\_HEIGHT) == 1)**

**{**

**return i;**

**}**

**}**

**return -1;**

**}**

**int draw\_category\_list(int language, int drawcategorylist, int homeflag)**

**{**

**const char\* categories[] = { "DRONE", "FIELD", "PESTICIDE" };**

**int i, y;**

**if (drawcategorylist == 0)**

**{**

**cleardevice();**

**clrmous(MouseX, MouseY);**

**setfillstyle(SOLID\_FILL, WHITE);**

**bar(50, 70, 330, 480);**

**put\_flower(150, 280, 20, RED);**

**put\_flower(200, 340, 10, CYAN);**

**if (language == ENGLISH)**

**{**

**settextstyle(DEFAULT\_FONT, HORIZ\_DIR, 3);**

**setcolor(BLUE);**

**outtextxy(50, 30, "Select Category:");**

**}**

**else if (language == CHINESE)**

**{**

**puthz(50, 30, "选择类别", 32, 32, BLUE);**

**}**

**for (i = 0; i < 3; i++)**

**{**

**y = 80 + i \* 40;**

**printbox(350, y, 350 + BTN\_WIDTH, y + BTN\_HEIGHT, DARKGRAY, 1, 5, 4);**

**outtextxy(360, y + 8, categories[i]);**

**}**

**drawcategorylist++;**

**}**

**// 妫€娴嬬偣鍑?**

**for (i = 0; i < 3; i++)**

**{**

**y = 80 + i \* 40;**

**if (MouseX > 350 && MouseX < 350 + BTN\_WIDTH && MouseY > y && MouseY < y + BTN\_HEIGHT && mouse\_press(350, y, 350 + BTN\_WIDTH, y + BTN\_HEIGHT) == 2)**

**{**

**setcolor(CYAN);**

**printbox(350, y, 350 + BTN\_WIDTH, y + BTN\_HEIGHT, YELLOW, 1, 4, 5);**

**settextstyle(DEFAULT\_FONT, HORIZ\_DIR, 3);**

**outtextxy(360, y + 8, categories[i]);**

**}**

**if (mouse\_press(350, y, 350 + BTN\_WIDTH, y + BTN\_HEIGHT) == 0)**

**{**

**setcolor(BLUE);**

**printbox(350, y, 350 + BTN\_WIDTH, y + BTN\_HEIGHT, DARKGRAY, 1, 4, 5);**

**outtextxy(360, y + 8, categories[i]);**

**}**

**if (MouseX > 350 && MouseX < 350 + BTN\_WIDTH && MouseY > y && MouseY < y + BTN\_HEIGHT && mouse\_press(350, y, 350 + BTN\_WIDTH, y + BTN\_HEIGHT) == 1)**

**{**

**return i;**

**}**

**}**

**return -1;**

**}**

**int draw\_file\_list(const char files[][13], int count, int language, int drawfilelist)**

**{**

**int i, y = 0;**

**static int tag=0;**

**if (drawfilelist == 0)**

**{**

**clrmous(MouseX, MouseY);**

**settextstyle(DEFAULT\_FONT, HORIZ\_DIR, 3);**

**cleardevice();**

**put\_flower(450, 290, 25, BLUE);**

**put\_flower(490, 360, 5, RED);**

**// 缁樺埗鏍囬??**

**if (language == ENGLISH)**

**{**

**setcolor(BLUE);**

**outtextxy(50, 30, "Select File:");**

**}**

**else if (language == CHINESE)**

**{**

**puthz(50, 30, "选择文件", 32, 32, BLUE);**

**}**

**// 缁樺埗鏂囦欢鍒楄〃**

**for (i = 0; i < count; i++)**

**{**

**y = 80 + i \* 40;**

**printbox(50, y, 50 + BTN\_WIDTH, y + BTN\_HEIGHT, DARKGRAY, 1, 5, 4);**

**outtextxy(60, y + 8, files[i]);**

**}**

**drawfilelist++;**

**}**

**// 妫€娴嬬偣鍑?**

**for (i = 0; i < count; i++)**

**{**

**y = 80 + i \* 40;**

**if (MouseX > 50 && MouseX < 50 + BTN\_WIDTH && MouseY > y && MouseY < y + BTN\_HEIGHT && mouse\_press(50, y, 50 + BTN\_WIDTH, y + BTN\_HEIGHT) == 2)**

**{**

**setcolor(CYAN);**

**printbox(50, y, 50 + BTN\_WIDTH, y + BTN\_HEIGHT, YELLOW, 1, 4, 5);**

**outtextxy(60, y + 8, files[i]);**

**}**

**if (MouseX > 50 && MouseX < 50 + BTN\_WIDTH && MouseY > y && MouseY < y + BTN\_HEIGHT && mouse\_press(50, y, 50 + BTN\_WIDTH, y + BTN\_HEIGHT) == 1)**

**{**

**return i;**

**}**

**if (mouse\_press(50, y, 50 + BTN\_WIDTH, y + BTN\_HEIGHT) == 0)**

**{**

**setcolor(BLUE);**

**printbox(50, y, 50 + BTN\_WIDTH, y + BTN\_HEIGHT, DARKGRAY, 1, 4, 5);**

**outtextxy(60, y + 8, files[i]);**

**}**

**}**

**return -1;**

**}**

**void show\_file\_content(const char\* path, int language, int drawcontent)**

**{**

**FILE\* fp = fopen(path, "rb");**

**char buffer[16];**

**int y = 70;**

**if (drawcontent == 0)**

**{**

**clrmous(MouseX, MouseY);**

**cleardevice();**

**//settextstyle(SANS\_SERIF\_FONT, HORIZ\_DIR, 3);**

**settextstyle(DEFAULT\_FONT, HORIZ\_DIR, 3);**

**printbox(595, 5, 630, 40, DARKGRAY, 1, 5, 4);**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT, HORIZ\_DIR, 3);**

**outtextxy(602, 10, "x");**

**if (language == ENGLISH)**

**{**

**setcolor(BLUE);**

**outtextxy(50, 50, "Existing:");**

**}**

**else if(language== CHINESE)**

**{**

**puthz(50, 50, "已存在的", 32, 32, BLUE);**

**}**

**if (!fp)**

**{**

**if (language == ENGLISH)**

**{**

**setcolor(BLUE);**

**outtextxy(50, 80, "Empty file!");**

**outtextxy(50, 110, "Not Found!");**

**}**

**else if (language == CHINESE)**

**{**

**puthz(50, 80, "打开文件为空", 32, 32, BLUE);**

**puthz(50, 110, "未找到", 32, 32, BLUE);**

**}**

**//return;**

**drawcontent++;**

**}**

**settextstyle(SANS\_SERIF\_FONT, HORIZ\_DIR, 3);**

**// 璇诲彇,鏄剧ず鍐呭??**

**while (fgets(buffer, sizeof(buffer), fp))**

**{**

**setcolor(BLUE);**

**outtextxy(80, y + 30, buffer);**

**y += 30;**

**if (y > 300)**

**break; // 瓒呭嚭灞忓箷灏卞仠姝?**

**}**

**}**

**drawcontent++;**

**fclose(fp);**

**}**

**void trans(int num, char\* str)**

**{**

**int temp = num;**

**int digits = 0; //浣嶆暟**

**int index = 0;**

**while (temp != 0)**

**{**

**temp /= 10;**

**digits++;**

**}**

**index = digits - 1;**

**temp = num;**

**do**

**{**

**str[index--] = temp % 10 + '0';**

**temp /= 10;**

**} while (temp != 0);**

**//鏈€鍚庡姞0**

**str[digits] = '\0';**

**//缁?0涔熻緭鍑哄瓧绗︿覆**

**if (num == 0)**

**{**

**str[0] = '0';**

**str[1] = '\0';**

**}**

**}**

**int go\_to\_home(int\* state)**

**{**

**static int button\_state = 0; // 0: 姝ｅ父, 1: 鎮?鍋?, 2: 鎸変笅**

**int new\_button\_state = button\_state;**

**// 妫€娴嬮紶鏍囨槸鍚﹀湪鎸夐挳涓?**

**if (MouseX >= 595 && MouseX <= 630 && MouseY >= 5 && MouseY <= 40) {**

**if (press == 1)**

**{ // 榧犳爣鎸変笅**

**new\_button\_state = 2;**

**\*state = SELECT\_USER;**

**}**

**else**

**{ // 榧犳爣鎮?鍋?**

**new\_button\_state = 1;**

**}**

**}**

**else {**

**new\_button\_state = 0;**

**}**

**// 濡傛灉鎸夐挳鐘舵€佸彂鐢熷彉鍖栵紝鍒欓噸缁樻寜閽?**

**if (new\_button\_state != button\_state) {**

**button\_state = new\_button\_state;**

**draw\_home\_button(button\_state);**

**}**

**return button\_state;**

**}**

**void draw\_home\_button(int state)**

**{**

**//cleardevice();**

**switch (state)**

**{**

**case 0: // 姝ｅ父鐘舵€?**

**printbox(595, 5, 630, 40, DARKGRAY, 1, 5, 4);**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT, HORIZ\_DIR, 3);**

**outtextxy(602, 10, "x");**

**break;**

**case 1: // 鎮?鍋滅姸鎬?**

**printbox(595, 5, 630, 40, BLUE, 1, 5, 4);**

**setcolor(BLUE);**

**settextstyle(DEFAULT\_FONT, HORIZ\_DIR, 3);**

**outtextxy(602, 10, "x");**

**break;**

**case 2: // 鎸変笅鐘舵€?**

**printbox(595, 5, 630, 40, DARKGRAY, 1, 5, 4);**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT, HORIZ\_DIR, 3);**

**outtextxy(602, 10, "x");**

**break;**

**}**

**}**

**// 缁樺埗涓€鏈靛儚绱犻?庢牸鐨勮姳鏈碉紙涓?蹇? + 鑺辩摚 + 鑼庯級**

**void put\_flower(int x, int y, int pix, int COLOR)**

**{**

**// 涓诲共**

**printline(x, y - pix \* 9, 1, 9, 1, COLOR, pix, 0);**

**// 妯?鍚戣姳鐡ｏ紙涓?闂翠袱灞傦級**

**printline(x - 2 \* pix, y - pix \* 6, 1, 5, 0, COLOR, pix, 0);**

**printline(x - 2 \* pix, y - pix \* 5, 1, 5, 0, COLOR, pix, 0);**

**// 宸︿笂涓庡彸涓婅姳鐡?**

**printline(x - 2 \* pix, y - pix \* 10, 1, 4, 1, COLOR, pix, 0);**

**printline(x - 3 \* pix, y - pix \* 9, 1, 3, 1, COLOR, pix, 0);**

**printline(x + 2 \* pix, y - pix \* 10, 1, 4, 1, COLOR, pix, 0);**

**printline(x + 3 \* pix, y - pix \* 9, 1, 3, 1, COLOR, pix, 0);**

**// 涓?闂村姞娣?**

**printline(x, y - pix \* 8, 1, 3, 0, COLOR, pix, 0);**

**// 宸﹀彸涓嬫柟鑺辩摚**

**printline(x - 4 \* pix, y - pix \* 4, 1, 2, 1, COLOR, pix, 0);**

**printline(x - 3 \* pix, y - pix \* 3, 1, 2, 1, COLOR, pix, 0);**

**printline(x + 4 \* pix, y - pix \* 4, 1, 2, 1, COLOR, pix, 0);**

**printline(x + 3 \* pix, y - pix \* 3, 1, 2, 1, COLOR, pix, 0);**

**// 涓嬪眰妯?鍚戣姳鐡?**

**printline(x - 2 \* pix, y - pix \* 2, 1, 5, 0, COLOR, pix, 0);**

**printline(x - 2 \* pix, y - pix \* 1, 1, 5, 0, COLOR, pix, 0);**

**// 宸︿笅鍨傜洿绾胯ˉ鑺辫姱**

**printline(x - pix, y - pix \* 7, 1, 3, 1, COLOR, pix, 0);**

**}**

**void paint\_field\_in\_log(int record[21][26], char\* nowfield, int language, int paintfieldinlog, char\* users)**

**{**

**int i, j, x, y;**

**char path[100];**

**FILE\* fp;**

**char string[80] = "c:\\DATA\\";**

**char\* username = users;**

**memset(record, 0, sizeof(record));**

**if (username == NULL)**

**{**

**cleardevice();**

**setbkcolor(BLACK);**

**printf("无法获取用户名。\n");**

**delay(1000);**

**return;**

**}**

**clrmous(MouseX, MouseY);**

**if (strlen(nowfield) != 0)**

**{**

**strcat(string, username);**

**strcat(string, "\\");**

**strcat(string, "FIELD\\");**

**strcat(string, nowfield);**

**//strcat(string, ".dat");**

**if ((fp = fopen(string, "rb")) != NULL)**

**{**

**for (i = 0; i < 21; i++)**

**{**

**fread(record[i], sizeof(int), 26, fp);**

**}**

**}**

**else**

**{**

**cleardevice();**

**setbkcolor(BLACK);**

**printf("无法打开文件: %s\n", path);**

**delay(1000);**

**}**

**fclose(fp);**

**}**

**delay(50);**

**setbkcolor(WHITE); // 璀滃磾鍢樺皻寮艰憥鏄撳技**

**cleardevice(); // 璩犺寘璀滃Д**

**back\_button(PAINT); // 绱欏礄鍗︽寚姊撴偿**

**setcolor(DARKGRAY); // 璀滃磾鍐插技钁庡湩瀛愬技**

**if (language == ENGLISH)**

**{**

**settextstyle(DEFAULT\_FONT, HORIZ\_DIR, 4); // 璀滃磾鐚熶簯鍔斿?€**

**outtextxy(110, 10, "NAME:"); // 瑁滅珒鐚熶簯 NAME:**

**}**

**else if (language == CHINESE)**

**{**

**puthz(110, 8, "名称", 32, 32, DARKGRAY); // 瑁滅珒鏌诲繓 鍏嗗悇**

**}**

**outtextxy(260, 10, nowfield); // 瑁滅珒杓濆康婊村讥鍏嗗悇**

**setlinestyle(SOLID\_LINE, 0, THICK\_WIDTH); // 璀滃磾銥嶄緩钁庣碁銥?**

**setcolor(DARKGRAY); // 璀滃磾鍐插技钁庡湩瀛愬技**

**line(110, 50, 110, 470); // 绱欏礄鎻涘卜銥?**

**line(110, 470, 630, 470); // 绱欏礄閭﹀碃銥?**

**line(110, 50, 108, 60); // 绱欏礄鐪夊彅渚樻仯璨у彅**

**line(110, 50, 112, 60);**

**line(630, 470, 620, 468); // 绱欏礄鐪夊彅渚樺様鍜屽彅**

**line(630, 470, 620, 472);**

**setlinestyle(DOTTED\_LINE, 0, NORM\_WIDTH); // 璀滃磾銥嶄緩钁庡€°瀺**

**setcolor(DARKGRAY); // 璀滃磾鍐插技钁庡湩瀛愬技**

**for (i = 0; i < 26; i++) // 绱欏礄鎻涘卜鍊°瀺**

**{**

**line(110 + i \* 20, 50, 110 + i \* 20, 470);**

**}**

**for (i = 0; i < 21; i++) // 绱欏礄閭﹀碃鍊°瀺**

**{**

**line(110, 470 - i \* 20, 630, 470 - i \* 20);**

**}**

**// 绱欏礄婊村讥鍧?鍚?**

**for (i = 0; i < 21; i++)//y**

**{**

**for (j = 0; j < 26; j++)//x**

**{**

**x = 110 + j \* 20;**

**y = 470 - i \* 20 - 20;**

**if (record[i][j] != 2 && record[i][j] != 0)**

**{**

**setfillstyle(SOLID\_FILL, DARKGRAY);**

**bar(110 + j \* 20, 470 - (i + 1) \* 20, 110 + (j + 1) \* 20, 470 - i \* 20);**

**}**

**if (record[i][j] == 2)**

**{**

**setfillstyle(SOLID\_FILL, LIGHTBLUE);**

**bar(110 + j \* 20, 470 - (i + 1) \* 20, 110 + (j + 1) \* 20, 470 - i \* 20);**

**}**

**if (record[i][j] == 3)**

**{**

**put\_house(x, y, BROWN, CYAN, 2);**

**}**

**else if (record[i][j] == 4)**

**{**

**put\_house(x, y, BROWN, MAGENTA, 2);**

**}**

**else if (record[i][j] == 5)**

**{**

**put\_house(x, y, BROWN, YELLOW, 2);**

**}**

**else if (record[i][j] == 6)**

**{**

**put\_house(x, y, BROWN, BLUE, 2);**

**}**

**else if (record[i][j] >= 10 && record[i][j] <= 39) {**

**put\_crop1(x, y, SPROUT, HEALTHY);**

**}**

**else if (record[i][j] >= 40 && record[i][j] <= 69) {**

**put\_crop2(x, y, SPROUT, HEALTHY);**

**}**

**else if (record[i][j] >= 70 && record[i][j] <= 99) {**

**put\_crop3(x, y, SPROUT, HEALTHY);**

**}**

**}**

**}**

**paintfieldinlog++;**

**}**

**/\*\*\*\*\*\*\*\*\*\*\*\*\*\*main.c\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/**

**#include "main.h"**

**#include "public.h"**

**void main()**

**{**

**int language = CHINESE;**

**int gdriver = VGA;**

**int gmode = VGAHI;**

**int page = WELCOME;**

**INFO \*temp;**

**DRONEINFO \*drone;**

**char pesticide[20] = {'\0'};**

**char now\_field[80] = {'\0'};**

**initgraph(&gdriver,&gmode,"c:\\borlandc\\bgi");**

**srand(time(0));**

**while(1)**

**{**

**switch(page)**

**{**

**case WELCOME :**

**page = welcome\_page(&language); //0**

**break;**

**case LOGIN :**

**page = login\_page(temp,language);//1**

**break;**

**case SIGNUP :**

**page = signup\_page(language);//2**

**break;**

**case HOME :**

**page = home\_page(temp,language);**

**break;**

**case FIELD :**

**page = field\_page(temp,now\_field,language);**

**break;**

**case DRONE :**

**page = drone\_page(temp->name,drone->name,drone,language);**

**break;**

**case PESTICIDE :**

**page = pesticide\_page(temp->name,pesticide,language);**

**break;**

**case DETECTOR :**

**page = detect\_page(temp->name,now\_field,language);**

**break;**

**case DRAW\_FIELD:**

**page = draw\_field\_page(temp->name,now\_field,language);**

**break;**

**case PLANT :**

**page = plant\_page(temp->name,now\_field,language);**

**break;**

**case HOUSE :**

**page = house\_page(temp->name,now\_field,language);**

**break;**

**case DRONE\_LIST:**

**page = drone\_list\_page(temp->name,drone,language);**

**break;**

**case LOGS:**

**page = logs\_page(language);**

**break;**

**case QUIT:**

**quit\_page();**

**closegraph();**

**exit(1);**

**break;**

**default :**

**exit(1);**

**}**

**}**

**getch();**

**closegraph();**

**}**

**/\*\*\*\*\*\*\*\*\*\*\*\*\*mouse.c(借用)\*\*\*\*\*\*\*\*\*\*\*\*\*/**

**#include <conio.h>**

**#include <graphics.h>**

**#include <dos.h>**

**#include <stdio.h>**

**#include <stdlib.h>**

**#include "mouse.h"**

**/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**MOUSE.c**

**UPDATER: dengshuumin**

**FUNCTION: mouse action**

**ABSTRACT:**

**A.mread**

**B.newmouse**

**VERSION: 3.0**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/**

**int MouseX;**

**int MouseY;**

**int MouseS;**

**int press;**

**void \*buffer;**

**union REGS regs;**

**int flag = 0;**

**void mouseinit() //鍒濆鍖?**

**{**

**int retcode;**

**int xmin, xmax, ymin, ymax, x\_max = 625, y\_max = 480;**

**int size;**

**xmin = 2;**

**xmax = x\_max - 1;**

**ymin = 8;**

**ymax = y\_max - 2;**

**regs.x.ax = 0;**

**int86(51, &regs, &regs);**

**retcode = regs.x.ax;**

**if (retcode == 0)**

**{**

**;**

**//printf("Mouse or Mouse Driver Obsent,Please Install!");**

**//delay(5000);**

**}**

**else**

**{**

**regs.x.ax = 7;**

**regs.x.cx = xmin;**

**regs.x.dx = xmax;**

**int86(51, &regs, &regs);**

**regs.x.ax = 8;**

**regs.x.cx = ymin;**

**regs.x.dx = ymax;**

**int86(51, &regs, &regs);**

**}**

**MouseS = 0;**

**MouseX = 320, MouseY = 240;**

**save\_bk\_mou(320, 240);**

**mouse(MouseX, MouseY);**

**flag = 1;**

**}**

**/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**FUNCTION: mouse**

**DESCRIPTION: 鐢讳笉鍚屽舰鎬佺殑榧犳爣**

**INPUT: x,y**

**RETURN: 鏃?**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/**

**void mouse(int x, int y)**

**{**

**switch (MouseS)**

**{**

**case 1: //鎵嬪娍榧犳爣**

**{**

**setcolor(WHITE);**

**setlinestyle(0, 0, 1);**

**line(x - 1, y + 9, x - 1, y + 8);**

**line(x, y + 7, x, y + 11);**

**line(x + 1, y + 6, x + 1, y + 13);**

**line(x + 2, y + 8, x + 2, y + 14);**

**line(x + 3, y - 1, x + 3, y + 15);**

**arc(x + 4, y - 1, 0, 180, 1);**

**line(x + 4, y - 2, x + 4, y + 15);**

**line(x + 5, y - 1, x + 5, y + 16);**

**arc(x + 6, y + 3, 0, 180, 1);**

**line(x + 6, y + 2, x + 6, y + 16);**

**line(x + 7, y + 3, x + 7, y + 17);**

**arc(x + 8, y + 5, 0, 180, 1);**

**line(x + 8, y + 4, x + 8, y + 17);**

**line(x + 9, y + 5, x + 9, y + 16);**

**arc(x + 10, y + 7, 0, 180, 1);**

**line(x + 10, y + 6, x + 10, y + 16);**

**line(x + 11, y + 7, x + 11, y + 13);**

**setcolor(DARKGRAY);**

**line(x - 1, y + 9, x - 1, y + 8);**

**line(x - 1, y + 8, x + 1, y + 6);**

**line(x + 1, y + 6, x + 3, y + 10);**

**line(x + 3, y + 10, x + 3, y - 1);**

**arc(x + 4, y - 1, 0, 180, 1);**

**line(x + 5, y - 1, x + 5, y + 5);**

**arc(x + 6, y + 3, 0, 180, 1);**

**line(x + 7, y + 3, x + 7, y + 7);**

**arc(x + 8, y + 5, 0, 180, 1);**

**line(x + 9, y + 5, x + 9, y + 9);**

**arc(x + 10, y + 7, 0, 180, 1);**

**line(x + 11, y + 7, x + 11, y + 13);**

**arc(x + 7, y + 13, -90, 0, 4);**

**line(x + 7, y + 17, x + 3, y + 15);**

**line(x + 3, y + 15, x + 1, y + 13);**

**line(x + 1, y + 13, x - 1, y + 9);**

**}**

**break;**

**case 2: //鍏夋爣**

**{**

**setcolor(DARKGRAY);**

**setlinestyle(0, 0, 1);**

**line(x + 1, y - 1, x + 9, y - 1);**

**line(x + 1, y + 15, x + 9, y + 15);**

**line(x + 5, y - 1, x + 5, y + 15);**

**}**

**break;**

**case 3: //鍗佸瓧**

**{**

**setcolor(WHITE);**

**setlinestyle(0, 0, 1);**

**line(x - 1, y + 7, x + 11, y + 7);**

**line(x + 5, y - 1, x + 5, y + 15);**

**}**

**break;**

**case 4://閾呯瑪**

**{**

**setcolor(LIGHTGRAY);**

**setlinestyle(0,0,1);**

**line(x-1,y-2,x+2,y-2);**

**line(x-1,y-1,x+1,y-1);**

**line(x-1,y,x,y);**

**putpixel(x-1,y+1,LIGHTGRAY);**

**setcolor(BROWN);**

**setlinestyle(0,0,1);**

**line(x+2,y-1,x+3,y-1);**

**line(x+1,y,x+4,y);**

**line(x,y+1,x+5,y+1);**

**line(x,y+2,x+6,y+2);**

**line(x+1,y+3,x+7,y+3);**

**line(x+2,y+4,x+8,y+4);**

**line(x+3,y+5,x+9,y+5);**

**line(x+4,y+6,x+9,y+6);**

**line(x+5,y+7,x+8,y+7);**

**line(x+6,y+8,x+7,y+8);**

**putpixel(x+10,y+6,LIGHTGRAY);**

**setcolor(LIGHTGRAY);**

**setlinestyle(0,0,1);**

**line(x+9,y+7,x+11,y+7);**

**line(x+8,y+8,x+11,y+8);**

**line(x+7,y+9,x+10,y+9);**

**line(x+8,y+10,x+9,y+10);**

**}**

**break;**

**case 5: //姗＄毊**

**{**

**putpixel(x+3,y-2,LIGHTGRAY);**

**setlinestyle(0,0,1);**

**setcolor(LIGHTGRAY);**

**line(x+2,y-1,x+4,y-1);**

**line(x+1,y,x+5,y);**

**line(x,y+1,x+6,y+1);**

**line(x-1,y+2,x+7,y+2);**

**line(x,y+3,x+8,y+3);**

**line(x+1,y+4,x+9,y+4);**

**line(x+2,y+5,x+10,y+5);**

**line(x+3,y+6,x+11,y+6);**

**line(x+4,y+7,x+10,y+7);**

**line(x+5,y+8,x+9,y+8);**

**line(x+6,y+9,x+8,y+9);**

**putpixel(x+7,y+10,LIGHTGRAY);**

**}**

**break;**

**case 6 : //鏍戣嫍**

**{**

**setcolor(GREEN);**

**setlinestyle(SOLID\_LINE,0,NORM\_WIDTH);**

**line(x-1,y-2,x,y-2);**

**line(x-1,y-1,x+1,y-1);**

**line(x-1,y,x+2,y);**

**line(x,y+1,x+6,y+1);**

**line(x+1,y+2,x+5,y+2);**

**line(x+3,y+2,x+3,y+6);**

**line(x+6,y-2,x+7,y-2);**

**line(x+5,y-1,x+7,y-1);**

**line(x+4,y,x+7,y);**

**}**

**break;**

**case 7 : //閾插瓙**

**{**

**setcolor(LIGHTGRAY);**

**setlinestyle(SOLID\_LINE,0,NORM\_WIDTH);**

**line(x-1,y-2,x+2,y-2);**

**line(x-1,y-1,x+3,y-1);**

**line(x-1,y,x+4,y);**

**line(x-1,y+1,x+3,y+1);**

**line(x,y+2,x+2,y+2);**

**putpixel(x+1,y+3,LIGHTGRAY);**

**setcolor(BROWN);**

**line(x+3,y+2,x+4,y+2);**

**line(x+3,y+3,x+5,y+3);//x-1 y-2**

**line(x+4,y+4,x+6,y+4);**

**line(x+5,y+5,x+7,y+5);**

**line(x+6,y+6,x+8,y+6);**

**line(x+7,y+7,x+9,y+7);**

**line(x+8,y+8,x+11,y+8);**

**line(x+9,y+9,x+10,y+9);**

**line(x+8,y+10,x+9,y+10);**

**putpixel(x+11,y+7,BROWN);**

**}**

**break;**

**case 8 : //鏃楀瓙**

**{**

**setcolor(LIGHTGRAY);**

**setlinestyle(SOLID\_LINE,0,NORM\_WIDTH);**

**line(x+4,y,x+4,y+13);**

**line(x+5,y,x+5,y+13);**

**line(x+2,y+14,x+8,y+14);**

**line(x,y+15,x+10,y+15);**

**line(x,y+16,x+10,y+16);**

**setcolor(RED);**

**line(x+6,y,x+6,y+6);**

**line(x+7,y+1,x+7,y+6);**

**line(x+8,y+2,x+8,y+6);**

**line(x+9,y+3,x+9,y+6);**

**line(x+10,y+4,x+10,y+6);**

**line(x+11,y+5,x+11,y+6);**

**}**

**break;**

**case 9: //姘?**

**{**

**setcolor(BLUE);**

**setlinestyle(SOLID\_LINE,0,NORM\_WIDTH);**

**putpixel(x+3,y+0,BLUE);**

**line(x+2,y+1,x+4,y+1);**

**line(x+2,y+2,x+4,y+2);**

**line(x+1,y+3,x+5,y+3);**

**line(x+1,y+4,x+5,y+4);**

**line(x,y+5,x+6,y+5);**

**line(x,y+6,x+6,y+6);**

**line(x,y+7,x+6,y+7);**

**line(x+1,y+8,x+5,y+8);**

**line(x+2,y+9,x+4,y+9);**

**}**

**break;**

**default: //榛樿榧犳爣**

**{**

**setlinestyle(0, 0, 1);**

**setcolor(WHITE);**

**line(x, y, x, y + 13);**

**line(x + 1, y + 1, x + 1, y + 12);**

**line(x + 2, y + 2, x + 2, y + 11);**

**line(x + 3, y + 3, x + 3, y + 10);**

**line(x + 4, y + 4, x + 4, y + 12);**

**line(x + 5, y + 5, x + 5, y + 9);**

**line(x + 5, y + 11, x + 5, y + 14);**

**line(x + 6, y + 6, x + 6, y + 9);**

**line(x + 6, y + 13, x + 6, y + 15);**

**line(x + 7, y + 7, x + 7, y + 9);**

**line(x + 8, y + 8, x + 8, y + 9);**

**line(x + 9, y + 9, x + 9, y + 9);**

**setcolor(DARKGRAY);**

**line(x - 1, y - 1, x - 1, y + 14);**

**line(x - 1, y + 14, x + 3, y + 11);**

**line(x + 3, y + 11, x + 3, y + 12);**

**line(x + 3, y + 12, x + 4, y + 13);**

**line(x + 4, y + 13, x + 4, y + 14);**

**line(x + 4, y + 14, x + 7, y + 17);**

**line(x + 7, y + 17, x + 7, y + 13);**

**line(x + 7, y + 13, x + 6, y + 12);**

**line(x + 6, y + 12, x + 6, y + 11);**

**line(x + 6, y + 11, x + 5, y + 10);**

**line(x + 5, y + 10, x + 11, y + 10);**

**line(x + 11, y + 10, x - 1, y - 2);**

**}**

**break;**

**}**

**}**

**/\*void mou\_pos(int \*nx,int \*ny,int\*nbuttons)//鏇存敼榧犳爣浣嶇疆**

**{**

**int x0=\*nx,y0=\*ny;**

**mread(nx,ny,nbuttons);**

**clrmous(x0,y0);**

**save\_bk\_mou(\*nx,\*ny);**

**drawmous(\*nx,\*ny);**

**}**

**void mread(int \*nx,int \*ny,int\*nbuttons)//鏀瑰潗鏍囦笉鐢?**

**{**

**int x0=\*nx,y0=\*ny,buttons0=\*nbuttons;**

**int xnew,ynew,buttonsnew;**

**do{**

**regs.x.ax=3;**

**int86(51,&regs,&regs);**

**buttonsnew=regs.x.bx;**

**delay(10);**

**regs.x.ax=3;**

**int86(51,&regs,&regs);**

**if(regs.x.bx==buttonsnew)**

**\*nbuttons=regs.x.bx;**

**else**

**\*nbuttons=buttons0;**

**xnew=regs.x.cx;**

**ynew=regs.x.dx;**

**}while(xnew==x0&&ynew==y0&&\*nbuttons==0);**

**\*nx=xnew;**

**\*ny=ynew;**

**}**

**\*/**

**/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**FUNCTION: mread**

**DESCRIPTION: 鑾峰彇鏂扮殑瀵勫瓨鍣ㄤ俊鎭?**

**INPUT: nx,ny,nbuttons**

**RETURN: 鏃?**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/**

**void mread(int \*nx, int \*ny, int \*nbuttons)**

**{**

**regs.x.ax = 3;**

**int86(51, &regs, &regs);**

**\*nx = regs.x.cx;**

**\*ny = regs.x.dx;**

**\*nbuttons = regs.x.bx;**

**}**

**/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**FUNCTION: newmouse**

**DESCRIPTION: 榧犳爣鐘舵€佸彂鐢熷彉鍖栧垯鏇存柊榧犳爣**

**INPUT: nx,ny,nbuttons**

**RETURN: 鏃?**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/**

**void newmouse(int \*nx, int \*ny, int \*nbuttons)**

**{**

**int xn, yn, buttonsn;**

**int x0 = \*nx, y0 = \*ny, buttons0 = \*nbuttons;**

**mread(&xn, &yn, &buttonsn);**

**\*nx = xn;**

**\*ny = yn;**

**\*nbuttons = buttonsn;**

**if (buttons0 == \*nbuttons)**

**\*nbuttons = 0; //浣垮緱鑳借繛缁寜閿?**

**if (xn == x0 && yn == y0 && buttonsn == buttons0)**

**return; //榧犳爣鐘舵€佷笉鍙樺垯鐩存帴杩斿洖S**

**clrmous(x0, y0); //璇存槑榧犳爣鐘舵€佸彂鐢熶簡鏀瑰彉**

**save\_bk\_mou(\*nx, \*ny);**

**drawmous(\*nx, \*ny);**

**}**

**void save\_bk\_mou(int nx, int ny) //瀛橀紶鏍囪儗鏅?**

**{**

**int size;**

**size = imagesize(nx - 1, ny - 2, nx + 11, ny + 17);**

**buffer = malloc(size);**

**if (buffer != NULL)**

**getimage(nx - 1, ny - 2, nx + 11, ny + 17, buffer);**

**// else**

**//printf("Error");**

**}**

**void clrmous(int nx, int ny) //娓呴櫎榧犳爣**

**{**

**if (flag == 1)**

**{**

**setwritemode(XOR\_PUT);**

**mouse(nx, ny);**

**putimage(nx - 1, ny - 2, buffer, COPY\_PUT);**

**free(buffer);**

**flag = 0;**

**setwritemode(COPY\_PUT);**

**}**

**}**

**void drawmous(int nx, int ny)**

**{**

**if (flag == 0)**

**{**

**setwritemode(COPY\_PUT);**

**mouse(nx, ny);**

**flag = 1;**

**}**

**}**

**//濡傛灉鍦ㄦ涓偣鍑伙紝鍒欒繑鍥?1锛涘湪妗嗕腑鏈偣鍑伙紝鍒欒繑鍥?2锛涗笉鍦ㄦ涓垯杩斿洖0**

**int mouse\_press(int x1, int y1, int x2, int y2)**

**{**

**//鍦ㄦ涓偣鍑伙紝鍒欒繑鍥?1**

**if (MouseX > x1 && MouseX < x2 && MouseY > y1 && MouseY < y2 && press == 1)**

**{**

**return 1;**

**}**

**//鍦ㄦ涓湭鐐瑰嚮锛屽垯杩斿洖2**

**else if (MouseX > x1 && MouseX < x2 && MouseY > y1 && MouseY < y2 && press == 0)**

**{**

**return 2;**

**}**

**//鍦ㄦ涓偣鍑诲彸閿紝鍒欒繑鍥?3**

**else if (MouseX > x1 && MouseX < x2 && MouseY > y1 && MouseY < y2 && press == 2)**

**{**

**return 3;**

**}**

**else**

**{**

**return 0;**

**}**

**}**

**/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*pesticide.c\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/**

**#include "pest.h"**

**#include "main.h"**

**#include "public.h"**

**void pesticide\_screen(int language)**

**{**

**setbkcolor(WHITE);**

**printbox(310,20,590,100,DARKGRAY,1,5,5);**

**printbox(310,140,590,220,DARKGRAY,1,5,5);**

**printbox(310,260,590,340,DARKGRAY,1,5,5);**

**printbox(310,380,590,460,DARKGRAY,1,5,5);**

**printbox(50,400,285,465,DARKGRAY,1,5,5);**

**put\_Erlenmeyer\_flask(70,0,0,9);**

**if(language == ENGLISH ){**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,3);**

**outtextxy(347,50,"PESTICIDE");**

**outtextxy(405,170,"NAME");**

**outtextxy(382,290,"PERIOD");**

**outtextxy(332,410,"PEST STYLE");**

**outtextxy(143,425,"OK");**

**}**

**else if(language == CHINESE)**

**{**

**puthz(350,50,"管理农药",32,32,DARKGRAY);**

**puthz(350,170,"药品名称",32,32,DARKGRAY);**

**puthz(350,290,"喷洒周期",32,32,DARKGRAY);**

**puthz(350,410,"虫害种类",32,32,DARKGRAY);**

**puthz(143,425,"确认",32,32,DARKGRAY);**

**}**

**setfillstyle(SOLID\_FILL,DARKGRAY);**

**bar(55,350,282,355);**

**bar(55,350,60,380);**

**bar(277,350,282,380);**

**bar(55,375,282,380);**

**setcolor(LIGHTGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,6);**

**outtextxy(150,250,"X");**

**back\_button(PAINT);**

**}**

**void open\_file3()**

**{**

**int i;**

**setfillstyle(SOLID\_FILL,LIGHTBLUE);**

**bar(60,60,580,420);**

**setfillstyle(SOLID\_FILL,BLUE);**

**bar(60,60,580,65);**

**bar(60,60,65,420);**

**bar(575,60,580,420);**

**bar(60,415,580,420);**

**for(i=0;i<6;i++)**

**{**

**bar(60,60+(i+1)\*50,580,65+(i+1)\*50);**

**}**

**put\_arrow(70,370,DARKGRAY,5,LEFTARROW); //(70,370,155,410)**

**put\_arrow(490,370,DARKGRAY,5,RIGHTARROW); //(490,370,575,410)**

**back\_button(PAINT);**

**}**

**int pesticide\_page(char \*username,char \*now\_pesticide,int language)**

**{**

**int flag = 0;**

**int mode = 0;**

**long long int time=1;**

**int style = 0;**

**int num[8];**

**char string[80] = "C:\\DATA\\";**

**char stringnow[80];**

**int ifbegin = 0;**

**int percent = 0,draw\_percent = 0;**

**struct pesticideinfo pesticide;**

**FILE \*fp;**

**char \*peststyle[2]={"LOCUST","LADYBUG"};**

**int file\_time = 0,file\_number;**

**int pagemax = 0,page = 0;**

**int i = 0;**

**int file\_flag = 0;**

**int filenum[12] = {1,1,1,1,1,1,1,1,1,1,1,1};**

**int done;**

**struct ffblk ffblk;**

**char stringall[80];**

**char pesticide\_list[20][20];**

**char ceshi[100];**

**memset(pesticide.name,0,sizeof(pesticide.name));**

**memset(pesticide.period,0,sizeof(pesticide.period));**

**memset(pesticide.pest\_style,0,sizeof(pesticide.pest\_style));**

**memset(pesticide\_list,0,sizeof(pesticide\_list));**

**strcat(string,username);**

**strcat(string,"\\PESTICIDE");**

**strcpy(stringall,string);**

**strcat(stringall,"\\\*.\*");**

**if(access(string,0)==-1) //协助创建农药文件夹**

**{**

**if(mkdir(string)!=0)**

**{**

**// perror("ERROR IN BUILDING THE FIELD PACKAGE!");**

**delay(2000);**

**exit(1);**

**}**

**}**

**if(strlen(now\_pesticide)>4)**

**{**

**strcpy(stringnow,string);**

**strcat(stringnow,"\\");**

**strcat(stringnow,now\_pesticide);**

**if((fp=fopen(stringnow,"rb+"))!=NULL)**

**{**

**if((fread(&pesticide,sizeof(pesticide),1,fp))==1)**

**{**

**// perror("ERROR IN READING");**

**}**

**}**

**else**

**{**

**// perror("ERROR IN CREATING!");**

**}**

**fclose(fp);**

**}**

**clrmous(MouseX,MouseY);**

**cleardevice();**

**pesticide\_screen(language);**

**setcolor(DARKGRAY);**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(320,270,580,330);**

**bar(320,390,580,450);**

**bar(320,150,580,210);**

**if(strlen(pesticide.name)!=0)**

**{**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,4);**

**outtextxy(320,165,pesticide.name);**

**}**

**else**

**{**

**if(language == ENGLISH ){**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,3);**

**outtextxy(405,170,"NAME");**

**}**

**else if(language == CHINESE)**

**{**

**puthz(350,170,"药品名称",32,32,DARKGRAY);**

**}**

**}**

**if(strlen(pesticide.period)!=0)**

**{**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,4);**

**outtextxy(320,285,pesticide.period);**

**}**

**else**

**{**

**if(language == ENGLISH ){**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,3);**

**outtextxy(382,290,"PERIOD");**

**}**

**else if(language == CHINESE)**

**{**

**puthz(350,290,"喷洒周期",32,32,DARKGRAY);**

**}**

**}**

**if(strlen(pesticide.pest\_style)!=0)**

**{**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,4);**

**outtextxy(320,405,pesticide.pest\_style);**

**}**

**else**

**{**

**if(language == ENGLISH ){**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,3);**

**outtextxy(332,410,"PEST STYLE");**

**}**

**else if(language == CHINESE)**

**{**

**puthz(350,410,"虫害种类",32,32,DARKGRAY);**

**}**

**}**

**mouseinit();**

**while(1)**

**{**

**newmouse(&MouseX,&MouseY,&press);**

**if(mouse\_press(310,20,590,100)==2)**

**{**

**if(flag!=1)**

**{**

**clrmous(MouseX,MouseY);**

**MouseS = 1;**

**flag = 1;**

**num[1] = 1;**

**if(language == ENGLISH ){**

**setcolor(YELLOW);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,3);**

**outtextxy(347,50,"PESTICIDE");**

**}**

**else if(language == CHINESE)**

**{**

**puthz(350,50,"管理农药",32,32,DARKGRAY);**

**}**

**}**

**}**

**else if(mouse\_press(310,20,590,100)==1)**

**{**

**mode = 1;**

**delay(100);**

**}**

**else if(mouse\_press(310,140,590,220)==2)**

**{**

**if(flag!=2)**

**{**

**if(strlen(pesticide.name)==0)**

**{**

**clrmous(MouseX,MouseY);**

**MouseS = 1;**

**flag = 2;**

**num[2] = 1;**

**if(language == ENGLISH ){**

**setcolor(YELLOW);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,3);**

**outtextxy(405,170,"NAME");**

**}**

**else if(language == CHINESE)**

**{**

**puthz(350,170,"药品名称",32,32,YELLOW);**

**}**

**}**

**else**

**{**

**clrmous(MouseX,MouseY);**

**MouseS = 2;**

**flag = 2;**

**num[2] = 1;**

**}**

**}**

**}**

**else if(mouse\_press(310,140,590,220)==1)**

**{**

**clrmous(MouseX,MouseY);**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(325,155,575,205);**

**temp\_input(pesticide.name,320,165,8,33,30,WHITE,4);**

**strcpy(stringnow,string);**

**strcat(stringnow,"\\");**

**strcat(stringnow,pesticide.name);**

**strcat(stringnow,".dat");**

**memset(pesticide.period,0,sizeof(pesticide.period));**

**memset(pesticide.pest\_style,0,sizeof(pesticide.pest\_style));**

**if((fp=fopen(stringnow,"rb+"))!=NULL)**

**{**

**if((fread(&pesticide,sizeof(pesticide),1,fp))!=1)**

**{**

**// perror("ERROR IN READING");**

**}**

**}**

**else**

**{**

**// perror("ERROR IN CREATING!");**

**}**

**fclose(fp);**

**setcolor(DARKGRAY);**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(320,270,580,330);**

**bar(320,390,580,450);**

**if(strlen(pesticide.period)!=0)**

**{**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,4);**

**outtextxy(320,285,pesticide.period);**

**}**

**else**

**{**

**if(language == ENGLISH ){**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,3);**

**outtextxy(382,290,"PERIOD");**

**}**

**else if(language == CHINESE)**

**{**

**puthz(350,290,"喷洒周期",32,32,DARKGRAY);**

**}**

**}**

**if(strlen(pesticide.pest\_style)!=0)**

**{**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,4);**

**outtextxy(320,405,pesticide.pest\_style);**

**}**

**else**

**{**

**if(language == ENGLISH ){**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,3);**

**outtextxy(332,410,"PEST STYLE");**

**}**

**else if(language == CHINESE)**

**{**

**puthz(350,410,"虫害种类",32,32,DARKGRAY);**

**}**

**}**

**}**

**else if(mouse\_press(310,260,590,340)==2)**

**{**

**if(flag!=3)**

**{**

**if(strlen(pesticide.period)==0)**

**{**

**clrmous(MouseX,MouseY);**

**MouseS = 1;**

**flag = 3;**

**num[3] = 1;**

**if(language == ENGLISH ){**

**setcolor(YELLOW);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,3);**

**outtextxy(382,290,"PERIOD");**

**}**

**else if(language == CHINESE)**

**{**

**puthz(350,290,"喷洒周期",32,32,YELLOW);**

**}**

**}**

**else**

**{**

**clrmous(MouseX,MouseY);**

**MouseS = 2;**

**flag = 3;**

**num[3] = 1;**

**}**

**}**

**}**

**else if(mouse\_press(310,260,590,340)==1)**

**{**

**clrmous(MouseX,MouseY);**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(325,275,575,325);**

**temp\_input(pesticide.period,320,285,8,33,30,WHITE,4);**

**for(i=0;i<strlen(pesticide.period);i++)**

**{**

**if(pesticide.period[i]>='0'&&pesticide.period[i]<='9') continue;**

**else**

**{**

**warning("PLEASE INPUT THE NUMBER!",230,255,1);**

**memset(pesticide.period,0,sizeof(pesticide.period));**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(320,275,575,325);**

**if(language == ENGLISH ){**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,3);**

**outtextxy(382,290,"PERIOD");**

**}**

**else if(language == CHINESE)**

**{**

**puthz(350,290,"喷洒周期",32,32,DARKGRAY);**

**}**

**break;**

**}**

**}**

**}**

**else if(mouse\_press(310,380,590,460)==2)**

**{**

**if(flag!=4)**

**{**

**if(strlen(pesticide.pest\_style)==0)**

**{**

**clrmous(MouseX,MouseY);**

**MouseS = 1;**

**flag = 4;**

**num[4] = 1;**

**if(language == ENGLISH ){**

**setcolor(YELLOW);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,3);**

**outtextxy(332,410,"PEST STYLE");**

**}**

**else if(language == CHINESE)**

**{**

**puthz(350,410,"虫害种类",32,32,YELLOW);**

**}**

**}**

**else**

**{**

**clrmous(MouseX,MouseY);**

**MouseS = 2;**

**flag = 4;**

**num[4] = 1;**

**}**

**}**

**}**

**else if(mouse\_press(310,380,590,460)==1)**

**{**

**clrmous(MouseX,MouseY);**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(325,395,575,445);**

**drop\_down\_menu(310,380,280,50,2,3,peststyle,LIGHTGRAY,DARKGRAY,pesticide.pest\_style);**

**clrmous(MouseX,MouseY);**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,4);**

**outtextxy(320,405,pesticide.pest\_style);**

**delay(200);**

**}**

**else if(mouse\_press(50,400,285,465)==2)**

**{**

**if(flag!=5)**

**{**

**clrmous(MouseX,MouseY);**

**MouseS = 1;**

**flag = 5;**

**num[5] = 1;**

**printbox(50,400,285,465,YELLOW,1,5,5);**

**if(language == ENGLISH ){**

**setcolor(CYAN);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,3);**

**outtextxy(143,425,"OK");**

**}**

**else if(language == CHINESE)**

**{**

**puthz(143,425,"确认",32,32,CYAN);**

**}**

**}**

**}**

**else if(mouse\_press(50,400,285,465)==1)**

**{**

**if(strlen(pesticide.name)!=0 && strlen(pesticide.period)!=0 && strlen(pesticide.pest\_style)!=0)**

**{**

**percent =0;**

**draw\_percent = 0;**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(70,357,265,372);**

**ifbegin = 1;**

**}**

**else**

**{**

**clrmous(MouseX,MouseY);**

**warning("PLEASE FILL ALL BLANK!",230,255,1);**

**}**

**}**

**else if(mouse\_press(595,5,630,40)==2)**

**{**

**if(flag!=6)**

**{**

**clrmous(MouseX,MouseY);**

**MouseS = 1;**

**flag =6;**

**num[6] = 1;**

**back\_button(LIGHT);**

**}**

**}**

**else if(mouse\_press(595,5,630,40)==1)**

**{**

**MouseS = 0;**

**return HOME;**

**}**

**else**

**{**

**flag = 0;**

**MouseS = 0;**

**}**

**if(flag!=1&&num[1]==1)**

**{**

**num[1] = 0;**

**if(language == ENGLISH ){**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,3);**

**outtextxy(347,50,"PESTICIDE");**

**}**

**else if(language == CHINESE)**

**{**

**puthz(350,50,"管理农药",32,32,DARKGRAY);**

**}**

**}**

**else if(flag!=2&&num[2]==1)**

**{**

**num[2] = 0;**

**if(strlen(pesticide.name)==0)**

**{**

**if(language == ENGLISH ){**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,3);**

**outtextxy(405,170,"NAME");**

**}**

**else if(language == CHINESE)**

**{**

**puthz(350,170,"药品名称",32,32,DARKGRAY);**

**}**

**}**

**}**

**else if(flag!=3&&num[3]==1)**

**{**

**num[3] = 0;**

**if(strlen(pesticide.period)==0)**

**{**

**if(language == ENGLISH ){**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,3);**

**outtextxy(382,290,"PERIOD");**

**}**

**else if(language == CHINESE)**

**{**

**puthz(350,290,"喷洒周期",32,32,DARKGRAY);**

**}**

**}**

**}**

**else if(flag!=4&&num[4]==1)**

**{**

**num[4] = 0;**

**if(strlen(pesticide.pest\_style)==0)**

**{**

**if(language == ENGLISH ){**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,3);**

**outtextxy(332,410,"PEST STYLE");**

**}**

**else if(language == CHINESE)**

**{**

**puthz(350,410,"虫害种类",32,32,DARKGRAY);**

**}**

**}**

**}**

**else if(flag!=5&&num[5]==1)**

**{**

**num[5] = 0;**

**clrmous(MouseX,MouseY);**

**printbox(50,400,285,465,DARKGRAY,1,5,5);**

**if(language == ENGLISH ){**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,3);**

**outtextxy(143,425,"OK");**

**}**

**else if(language == CHINESE)**

**{**

**puthz(143,425,"确认",32,32,DARKGRAY);**

**}**

**}**

**else if(flag!=6&&num[6]==1)**

**{**

**num[6] = 0;**

**back\_button(RECOVER);**

**}**

**while(ifbegin)**

**{**

**time++;**

**if(time%100000==0)**

**{**

**clrmous(MouseX,MouseY);**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(70,0,70+19\*9,17\*9);**

**put\_Erlenmeyer\_flask(70,0,style,9);**

**style++;**

**time = 1;**

**if(style>7)**

**{**

**style = 0;**

**}**

**percent++;**

**if(percent%10==0)**

**{**

**setfillstyle(SOLID\_FILL,draw\_percent+1);**

**bar(70+(draw\_percent)\*20,357,85+(draw\_percent)\*20,372);**

**draw\_percent++;**

**if(draw\_percent==10)**

**{**

**strcpy(stringnow,string);**

**strcat(stringnow,"\\");**

**strcat(stringnow,pesticide.name);**

**strcat(stringnow,".dat");**

**if((fp=fopen(stringnow,"wb"))!=NULL) //.dat .txt**

**{**

**if((fwrite(&pesticide,sizeof(pesticide),1,fp))!=1)**

**{**

**// perror("ERROR IN WRITING");**

**// delay(3000);**

**// exit(1);**

**}**

**}**

**else**

**{**

**// perror("ERROR IN OPENING FILE!");**

**}**

**fclose(fp);**

**ifbegin = 0;**

**}**

**}**

**}**

**}**

**if(mode == 1)**

**{**

**clrmous(MouseX,MouseY);**

**mouseinit();**

**memset(pesticide\_list,0,sizeof(pesticide\_list));**

**while(1)**

**{**

**newmouse(&MouseX,&MouseY,&press);**

**if(file\_time == 0)**

**{**

**file\_number = 0;**

**file\_time = 1;**

**clrmous(MouseX,MouseY);**

**cleardevice();**

**i = 0;**

**done = findfirst(stringall,&ffblk,0);**

**while(!done)**

**{**

**strcpy(pesticide\_list[i],ffblk.ff\_name);**

**done = findnext(&ffblk);**

**i++;**

**file\_number++;**

**}**

**open\_file3();**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,3);**

**outtextxy(20,20,ceshi);**

**pagemax = file\_number/6;**

**if(file\_number%6==0)**

**{**

**pagemax -=1;**

**}**

**if((file\_number-6\*page)>=0)**

**{**

**clrmous(MouseX,MouseY);**

**for(i=0;i<6;i++)**

**{**

**outtextxy(70,78+i\*50,pesticide\_list[i+6\*page]);**

**}**

**}**

**}**

**if(mouse\_press(70,370,155,410)==2) //左键**

**{**

**if(file\_flag!=1)**

**{**

**MouseS = 1;**

**file\_flag = 1;**

**filenum[1] = 1;**

**clrmous(MouseX,MouseY);**

**put\_arrow(70,370,CYAN,5,LEFTARROW);**

**}**

**}**

**else if(mouse\_press(70,370,155,410)==1)**

**{**

**delay(50);**

**if(page>=1)**

**{**

**page--;**

**file\_time = 0;**

**}**

**}**

**else if(mouse\_press(490,370,575,410)==2) //右键**

**{**

**if(file\_flag!=2)**

**{**

**MouseS = 1;**

**file\_flag = 2;**

**filenum[2] = 1;**

**clrmous(MouseX,MouseY);**

**put\_arrow(490,370,CYAN,5,RIGHTARROW);**

**}**

**}**

**else if(mouse\_press(490,370,575,410)==1)**

**{**

**delay(50);**

**if(page<pagemax)**

**{**

**page++;**

**file\_time = 0;**

**}**

**}**

**else if(mouse\_press(595,5,630,40)==2) //退出键**

**{**

**if(file\_flag!=3)**

**{**

**MouseS = 1;**

**file\_flag = 3;**

**filenum[3] = 1;**

**clrmous(MouseX,MouseY);**

**back\_button(LIGHT);**

**}**

**}**

**else if(mouse\_press(595,5,630,40)==1)**

**{**

**return PESTICIDE;**

**}**

**else if(mouse\_press(60,60,580,110)==2)**

**{**

**if(file\_flag!=4)**

**{**

**MouseS = 1;**

**file\_flag = 4;**

**filenum[4] = 1;**

**setcolor(CYAN);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,3);**

**outtextxy(70,78+0\*50,pesticide\_list[0+6\*page]);**

**}**

**}**

**else if(mouse\_press(60,60,580,110)==1)**

**{**

**strcpy(now\_pesticide,pesticide\_list[0+6\*page]);**

**return PESTICIDE;**

**}**

**else if(mouse\_press(60,110,580,160)==2)**

**{**

**if(file\_flag!=5)**

**{**

**MouseS = 1;**

**file\_flag = 5;**

**filenum[5] = 1;**

**setcolor(CYAN);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,3);**

**outtextxy(70,78+1\*50,pesticide\_list[1+6\*page]);**

**}**

**}**

**else if(mouse\_press(60,110,580,160)==1)**

**{**

**strcpy(now\_pesticide,pesticide\_list[1+6\*page]);**

**return PESTICIDE;**

**}**

**else if(mouse\_press(60,160,580,210)==2)**

**{**

**if(file\_flag!=6)**

**{**

**MouseS = 1;**

**file\_flag = 6;**

**filenum[6] = 1;**

**setcolor(CYAN);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,3);**

**outtextxy(70,78+2\*50,pesticide\_list[2+6\*page]);**

**}**

**}**

**else if(mouse\_press(60,160,580,210)==1)**

**{**

**strcpy(now\_pesticide,pesticide\_list[2+6\*page]);**

**return PESTICIDE;**

**}**

**else if(mouse\_press(60,210,580,260)==2)**

**{**

**if(file\_flag!=7)**

**{**

**MouseS = 1;**

**file\_flag = 7;**

**filenum[7] = 1;**

**setcolor(CYAN);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,3);**

**outtextxy(70,78+3\*50,pesticide\_list[3+6\*page]);**

**}**

**}**

**else if(mouse\_press(60,210,580,260)==1)**

**{**

**strcpy(now\_pesticide,pesticide\_list[3+6\*page]);**

**return PESTICIDE;**

**}**

**else if(mouse\_press(60,260,580,310)==2)**

**{**

**if(file\_flag!=8)**

**{**

**MouseS = 1;**

**file\_flag = 8;**

**filenum[8] = 1;**

**setcolor(CYAN);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,3);**

**outtextxy(70,78+4\*50,pesticide\_list[4+6\*page]);**

**}**

**}**

**else if(mouse\_press(60,260,580,310)==1)**

**{**

**strcpy(now\_pesticide,pesticide\_list[4+6\*page]);**

**return PESTICIDE;**

**}**

**else if(mouse\_press(60,310,580,360)==2)**

**{**

**if(file\_flag!=9)**

**{**

**MouseS = 1;**

**file\_flag = 9;**

**filenum[9] = 1;**

**setcolor(CYAN);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,3);**

**outtextxy(70,78+5\*50,pesticide\_list[5+6\*page]);**

**}**

**}**

**else if(mouse\_press(60,310,580,360)==1)**

**{**

**strcpy(now\_pesticide,pesticide\_list[5+6\*page]);**

**return PESTICIDE;**

**}**

**else**

**{**

**if(file\_flag!=0)**

**{**

**MouseS = 0;**

**file\_flag = 0;**

**}**

**}**

**if(file\_flag!=1&&filenum[1]==1)**

**{**

**clrmous(MouseX,MouseY);**

**put\_arrow(70,370,DARKGRAY,5,LEFTARROW);**

**filenum[1] = 0;**

**}**

**else if(file\_flag!=2&&filenum[2]==1)**

**{**

**clrmous(MouseX,MouseY);**

**put\_arrow(490,370,DARKGRAY,5,RIGHTARROW);**

**filenum[2] = 0;**

**}**

**else if(file\_flag!=3&&filenum[3]==1)**

**{**

**clrmous(MouseX,MouseY);**

**back\_button(RECOVER);**

**filenum[3] = 0;**

**}**

**else if(file\_flag!=4&&filenum[4]==1)**

**{**

**clrmous(MouseX,MouseY);**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,3);**

**outtextxy(70,78+0\*50,pesticide\_list[0+6\*page]);**

**filenum[4] = 0;**

**}**

**else if(file\_flag!=5&&filenum[5]==1)**

**{**

**clrmous(MouseX,MouseY);**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,3);**

**outtextxy(70,78+1\*50,pesticide\_list[1+6\*page]);**

**filenum[5] = 0;**

**}**

**else if(file\_flag!=6&&filenum[6]==1)**

**{**

**clrmous(MouseX,MouseY);**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,3);**

**outtextxy(70,78+2\*50,pesticide\_list[2+6\*page]);**

**filenum[6] = 0;**

**}**

**else if(file\_flag!=7&&filenum[7]==1)**

**{**

**clrmous(MouseX,MouseY);**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,3);**

**outtextxy(70,78+3\*50,pesticide\_list[3+6\*page]);**

**filenum[7] = 0;**

**}**

**else if(file\_flag!=8&&filenum[8]==1)**

**{**

**clrmous(MouseX,MouseY);**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,3);**

**outtextxy(70,78+4\*50,pesticide\_list[4+6\*page]);**

**filenum[8] = 0;**

**}**

**else if(file\_flag!=9&&filenum[9]==1)**

**{**

**clrmous(MouseX,MouseY);**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,3);**

**outtextxy(70,78+5\*50,pesticide\_list[5+6\*page]);**

**filenum[9] = 0;**

**}**

**}**

**}**

**}**

**}**

**/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*plant.c\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/**

**#include "public.h"**

**#include "plant.h"**

**void paint\_field( int record[21][26] ,char \*nowfield,int language)**

**{**

**int i,j,x,y;**

**setbkcolor(WHITE);**

**cleardevice();**

**clrmous(MouseX,MouseY);**

**back\_button(PAINT);**

**setcolor(DARKGRAY);**

**printline(100,0,1,50,1,DARKGRAY,5,5);**

**if(language == ENGLISH)**

**{**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,4);**

**outtextxy(110,10,"NAME:");**

**}**

**else if(language == CHINESE)**

**{**

**puthz(110,8,"名称",32,32,DARKGRAY);**

**}**

**outtextxy(260,10,nowfield);**

**// outtextxy(260,10,nowfield\_outstring);**

**setlinestyle(SOLID\_LINE,0,THICK\_WIDTH);**

**setcolor(DARKGRAY);**

**line(110,50,110,470);**

**line(110,470,630,470);**

**line(110,50,108,60);**

**line(110,50,112,60);**

**line(630,470,620,468);**

**line(630,470,620,472);**

**setlinestyle(DOTTED\_LINE,0,NORM\_WIDTH);**

**setcolor(DARKGRAY);**

**for(i=0;i<26;i++)**

**{**

**line(110+i\*20,50,110+i\*20,470);**

**}**

**for(i=0;i<21;i++)**

**{**

**line(110,470-i\*20,630,470-i\*20);**

**}**

**for(i=0;i<21;i++)//y**

**{**

**for(j=0;j<26;j++)//x**

**{**

**x = 110 + j\*20 ;**

**y = 470-i\*20-20 ;**

**if ( record[i][j]!=2&&record[i][j]!=0 )**

**{**

**setfillstyle(SOLID\_FILL,DARKGRAY);**

**bar(110+j\*20 , 470-(i+1)\*20 ,110+(j+1)\*20, 470-i\*20);**

**}**

**if( record[i][j]==2)**

**{**

**setfillstyle(SOLID\_FILL,LIGHTBLUE);**

**bar(110+j\*20 , 470-(i+1)\*20 ,110+(j+1)\*20, 470-i\*20);**

**}**

**if( record[i][j]==3 )**

**{**

**put\_house(x,y,BROWN,CYAN,2);**

**}**

**else if( record[i][j]==4 )**

**{**

**put\_house(x,y,BROWN,MAGENTA,2);**

**}**

**else if( record[i][j]==5 )**

**{**

**put\_house(x,y,BROWN,YELLOW,2);**

**}**

**else if( record[i][j]==6 )**

**{**

**put\_house(x,y,BROWN,BLUE,2);**

**}**

**else if( record[i][j]>=10 && record[i][j]<=39 ){**

**put\_crop1(x,y,SPROUT,HEALTHY);**

**}**

**else if( record[i][j]>=40 && record[i][j]<=69 ){**

**put\_crop2(x,y,SPROUT,HEALTHY);**

**}**

**else if( record[i][j]>=70 && record[i][j]<=99 ){**

**put\_crop3(x,y,SPROUT,HEALTHY);**

**}**

**}**

**}**

**}**

**void paint\_field\_right( int record[21][26] ,char \*nowfield,int language)**

**{**

**int i,j,x,y;**

**clrmous(MouseX,MouseY);**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(110,0,640,480);**

**back\_button(PAINT);**

**setcolor(DARKGRAY);**

**printline(100,0,1,50,1,DARKGRAY,5,5);**

**if(language == ENGLISH)**

**{**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,4);**

**outtextxy(110,10,"NAME:");**

**}**

**else if(language == CHINESE)**

**{**

**puthz(110,8,"名称",32,32,DARKGRAY);**

**}**

**outtextxy(260,10,nowfield);**

**setlinestyle(SOLID\_LINE,0,THICK\_WIDTH);**

**setcolor(DARKGRAY);**

**line(110,50,110,470);**

**line(110,470,630,470);**

**line(110,50,108,60);**

**line(110,50,112,60);**

**line(630,470,620,468);**

**line(630,470,620,472);**

**setlinestyle(DOTTED\_LINE,0,NORM\_WIDTH);**

**setcolor(DARKGRAY);**

**for(i=0;i<26;i++)**

**{**

**line(110+i\*20,50,110+i\*20,470);**

**}**

**for(i=0;i<21;i++)**

**{**

**line(110,470-i\*20,630,470-i\*20);**

**}**

**for(i=0;i<21;i++)//y**

**{**

**for(j=0;j<26;j++)//x**

**{**

**x = 110 + j\*20 ;**

**y = 470-i\*20-20 ;**

**if ( record[i][j]!=2&&record[i][j]!=0 )**

**{**

**setfillstyle(SOLID\_FILL,DARKGRAY);**

**bar(110+j\*20 , 470-(i+1)\*20 ,110+(j+1)\*20, 470-i\*20);**

**}**

**if( record[i][j]==3 )**

**{**

**put\_house(x,y,BROWN,CYAN,2);**

**}**

**else if( record[i][j]==4 )**

**{**

**put\_house(x,y,BROWN,MAGENTA,2);**

**}**

**else if( record[i][j]==5 )**

**{**

**put\_house(x,y,BROWN,YELLOW,2);**

**}**

**else if( record[i][j]==6 )**

**{**

**put\_house(x,y,BROWN,BLUE,2);**

**}**

**if( record[i][j]==2)**

**{**

**setfillstyle(SOLID\_FILL,LIGHTBLUE);**

**bar(110+j\*20 , 470-(i+1)\*20 ,110+(j+1)\*20, 470-i\*20);**

**}**

**else if( record[i][j]>=10 && record[i][j]<=39 ){**

**put\_crop1(x,y,SPROUT,HEALTHY);**

**}**

**else if( record[i][j]>=40 && record[i][j]<=69 ){**

**put\_crop2(x,y,SPROUT,HEALTHY);**

**}**

**else if( record[i][j]>=70 && record[i][j]<=99 ){**

**put\_crop3(x,y,SPROUT,HEALTHY);**

**}**

**}**

**}**

**}**

**//0-3 幼苗 4-6 过渡 7-9 成苗**

**void plant\_screen( int record[21][26] ,char \*nowfield,int language)**

**{**

**setbkcolor(WHITE);**

**cleardevice();**

**clrmous(MouseX,MouseY);**

**paint\_field(record ,nowfield,language);**

**put\_sprout(12,50,DARKGRAY,7);**

**put\_shovel(12,150,5,DARKGRAY,DARKGRAY);**

**}**

**int plant\_page(char \*username,char \*nowfield,int language)**

**{**

**int record[21][26];**

**int flag = 0;**

**int mode = 0;**

**int num[5];**

**int sprout\_flag=0 ,shovel\_flag=0 ,crop=0 ;**

**int x,y;**

**char path[100]="C:\\DATA\\";**

**char \*tempmsgs[3] = {"rice","corn","cane"};**

**int i,j;**

**char \*plant ;**

**FILE \*fp;**

**memset(record , 0 , sizeof(record));**

**strcat(path,username);**

**strcat(path,"\\FIELD\\");**

**strcat(path,nowfield);**

**if ( (fp = fopen(path,"rb")) != NULL )**

**{**

**for(i=0; i<21 ;i++ )**

**{**

**fread( record[i],sizeof(int), 26 ,fp);**

**}**

**}**

**// else**

**// {**

**// // perror("error in opening fieldfile!");**

**// }**

**fclose(fp);**

**plant\_screen( record ,nowfield,language);**

**mouseinit();**

**while(1)**

**{**

**newmouse(&MouseX,&MouseY,&press);**

**if( mouse\_press(12,50,80,110)==2 )//种树未点击**

**{**

**if(flag != 1)**

**{**

**MouseS = 1;**

**flag = 1;**

**num[1] = 1;**

**clrmous(MouseX,MouseY);**

**put\_sprout(12,50,GREEN,7);**

**}**

**}**

**else if( mouse\_press(12,50,80,110)==1 )//种树点击**

**{**

**MouseS = 0;**

**clrmous(MouseX,MouseY);**

**drop\_down\_menu(8,120,80,35,3,2,tempmsgs,WHITE,GREEN,plant);**

**if( strcmp(plant,"rice")==0 ) crop = 1;**

**else if( strcmp(plant,"corn" )==0) crop = 2 ;**

**else if( strcmp(plant,"cane")==0 ) crop = 3 ;**

**mode = 1;**

**}**

**else if( mouse\_press(12,150,80,215)==2 )//铲子未点击 (12,150,80,215)**

**{**

**if(flag!=2)**

**{**

**MouseS = 1;**

**flag = 2;**

**num[2] = 1;**

**clrmous(MouseX,MouseY);**

**put\_shovel(12,150,5,LIGHTGRAY,BROWN);**

**}**

**}**

**else if( mouse\_press(12,150,80,215)==1 )//铲子点击**

**{**

**mode = 2 ;**

**MouseS = 0;**

**clrmous(MouseX,MouseY);**

**}**

**else if( mouse\_press(595,5,630,40)==2 )//退出键未点击**

**{**

**if(flag!=3)**

**{**

**clrmous(MouseX,MouseY);**

**back\_button(LIGHT);**

**MouseS = 1;**

**flag = 3;**

**num[3] = 1;**

**}**

**}**

**else if( mouse\_press(595,5,630,40)==1 )//退出点击**

**{**

**clrmous(MouseX,MouseY);**

**return FIELD;**

**}**

**else**

**{**

**if(flag != 0)**

**{**

**MouseS = 0;**

**flag = 0;**

**}**

**}**

**//侧边及返回按键恢复**

**if(flag!=1 && num[1]==1)**

**{**

**clrmous(MouseX,MouseY);**

**put\_sprout(12,50,DARKGRAY,7);**

**num[1] = 0;**

**}**

**else if(flag!=2 && num[2]==1)**

**{**

**clrmous(MouseX,MouseY);**

**put\_shovel(12,150,5,DARKGRAY,DARKGRAY);**

**num[2] = 0;**

**}**

**else if(flag!=3&&num[3]==1)**

**{**

**clrmous(MouseX,MouseY);**

**back\_button(RECOVER);**

**num[3] = 0;**

**}**

**if(mode == 1)**

**{**

**clrmous(MouseX,MouseY);**

**put\_sprout(12,50,GREEN,7);**

**put\_ok\_button(PAINT);**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(595,5,630,40);//退出按键**

**while(1)**

**{**

**newmouse(&MouseX,&MouseY,&press);**

**if(mouse\_press(110,50,630,470)==2) //处于画图区域，但未点击**

**{**

**if(sprout\_flag != 1)**

**{**

**MouseS = mode + 5;//树苗**

**sprout\_flag = 1;**

**}**

**}**

**else if( mouse\_press(110,50,630,470)==1 )//处于画图区域并且点击**

**{**

**clrmous(MouseX,MouseY);**

**i = (470-MouseY)/20;**

**j = (MouseX - 110)/20;**

**if( record[i][j] == 1)**

**{**

**x = 110+j\*20 ;**

**y = 470-i\*20-20 ;**

**if(crop == 1 ) {**

**put\_crop1(x,y,SPROUT,HEALTHY);**

**record[i][j] = 10;**

**}**

**else if(crop == 2 ) {**

**put\_crop2(x,y,SPROUT,HEALTHY);**

**record[i][j] = 40 ;**

**}**

**else if(crop == 3 ) {**

**if(record[i-1][j-1]==2||record[i][j-1]==2||record[i+1][j-1]==2||record[i-1][j]==2||record[i+1][j]==2||record[i-1][j+1]==2||record[i][j+1]==2||record[i+1][j+1]==2)**

**{**

**put\_crop3(x,y,SPROUT,HEALTHY);**

**record[i][j] = 70 ;**

**}**

**}**

**}**

**}**

**else if(mouse\_press(5,400,95,470)==2)//处于ok区域未点击**

**{**

**if(sprout\_flag != 2)**

**{**

**MouseS = 1;**

**sprout\_flag = 2;**

**put\_ok\_button(LIGHT);**

**}**

**}**

**else if(mouse\_press(5,400,95,470)==1)//处于ok区域并且点击**

**{**

**MouseS = 0;**

**mode = 0;**

**if ( (fp = fopen(path,"wb")) != NULL )**

**{**

**for(i=0;i<21;i++)**

**{**

**fwrite(record[i],sizeof(int),26,fp);**

**}**

**}**

**else**

**{**

**// perror("error in changing record data!");**

**}**

**fclose(fp);**

**clrmous(MouseX,MouseY);**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(0,0,95,480);**

**put\_sprout(12,50,DARKGRAY,7);**

**put\_shovel(12,150,5,DARKGRAY,DARKGRAY);**

**back\_button(PAINT);**

**break;**

**}**

**else**

**{**

**if(sprout\_flag != 0)**

**{**

**MouseS = 0;**

**sprout\_flag = 0;**

**put\_ok\_button(RECOVER);**

**}**

**}**

**}**

**}**

**if(mode == 2 )//铲子**

**{**

**clrmous(MouseX,MouseY);**

**put\_shovel(12,150,5,LIGHTGRAY,BROWN);**

**put\_ok\_button(PAINT);**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(595,5,630,40);**

**while(1)**

**{**

**newmouse(&MouseX,&MouseY,&press);**

**if(mouse\_press(110,50,630,470)==2)//处于画图区域，但未点击**

**{**

**if(shovel\_flag !=1)**

**{**

**MouseS = mode + 5;**

**shovel\_flag = 1;**

**}**

**}**

**else if(mouse\_press(110,50,630,470)==1)//处于画图区域并且点击**

**{**

**clrmous(MouseX,MouseY);**

**i = (470-MouseY)/20;**

**j = (MouseX - 110)/20;**

**if( record[i][j] >= 10)**

**{**

**x = 110+j\*20 ;**

**y = 470-i\*20-20 ;//左上角**

**setfillstyle(SOLID\_FILL,DARKGRAY);**

**bar(x,y,x+20,y+20);**

**record[i][j] = 1;**

**}**

**}**

**else if(mouse\_press(5,400,95,470)==2)//处于ok区域未点击**

**{**

**if(shovel\_flag != 2)**

**{**

**MouseS = 1;**

**shovel\_flag = 2;**

**put\_ok\_button(LIGHT);**

**}**

**}**

**else if(mouse\_press(5,400,95,470)==1)//处于ok区域并且点击**

**{**

**MouseS = 0;**

**mode = 0;**

**if ( (fp = fopen(path,"wb")) != NULL )**

**{**

**for(i=0;i<21;i++)**

**{**

**fwrite(record[i],sizeof(int),26,fp);**

**}**

**}**

**else**

**{**

**// perror("error in changing record data!");**

**}**

**fclose(fp);**

**clrmous(MouseX,MouseY);**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(0,0,95,480);**

**put\_sprout(12,50,DARKGRAY,7);**

**put\_shovel(12,150,5,DARKGRAY,DARKGRAY);**

**back\_button(PAINT);**

**break;**

**}**

**}**

**}**

**}**

**}**

**/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*public.c\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/**

**#include "public.h"**

**/\* \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**function:printline**

**description:画像素风线函数**

**create:24/1/31**

**input:int x,int y,int len,int n,int flag,int COLOR,int wid,int gap**

**x,y是第一个小方块左上角起始点，flag=0横着向右，flag=1竖着向左，len记录每个块有多长，n记录有多少格**

**wid每格宽度，每格长度为len倍的宽度,gap为每格之间间隙**

**output:void**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* \*/**

**void printline(int x,int y,int len,int n,int flag,int COLOR,int wid,int gap)**

**{**

**//wid每格宽度，每格长度为len倍的宽度,gap为每格之间间隙**

**int t;**

**setfillstyle(SOLID\_FILL,COLOR);**

**while(n)**

**{**

**t=len;**

**while(t){**

**bar(x,y,x+wid,y+wid);**

**if(flag==0) x+=wid;**

**else y+=wid;**

**t--;**

**}**

**n--;**

**if(flag==0) x+=gap;**

**else y+=gap;**

**}**

**}**

**void printbox(int x1,int y1,int x2,int y2,int COLOR,int len,int wid,int gap)**

**{**

**int ver,hor,sum,remain\_ver,remain\_hor;//vertical,horizontal**

**sum=wid\*len+gap;**

**hor=abs(x2-x1)/sum;**

**remain\_hor=abs(x2-x1)-(hor\*sum-gap);**

**if(remain\_hor<wid\*len) remain\_hor+=wid\*len;**

**ver=abs(y2-y1)/sum;**

**remain\_ver=abs(y2-y1)-(ver\*sum-gap);**

**if(remain\_ver<wid\*len) remain\_ver+=wid\*len;**

**printline(x1+remain\_hor/2,y1 ,len,hor,0,COLOR,wid,gap);**

**printline(x1+remain\_hor/2,y2-wid,len,hor,0,COLOR,wid,gap);**

**printline(x1,y1+remain\_ver/2,len,ver,1,COLOR,wid,gap);**

**printline(x2-wid,y1+remain\_ver/2,len,ver,1,COLOR,wid,gap);**

**}**

**void back\_button(int flag)**

**{**

**clrmous(MouseX,MouseY);**

**if(flag==PAINT)**

**{**

**printbox(595,5,630,40,DARKGRAY,1,5,4);**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT , HORIZ\_DIR,3);**

**outtextxy(602,10, "x");**

**}**

**else if(flag==LIGHT)**

**{**

**printbox(595,5,630,40,BLUE,1,5,4);**

**setcolor(BLUE);**

**settextstyle(DEFAULT\_FONT , HORIZ\_DIR,3);**

**outtextxy(602,10, "x");**

**}**

**else if(flag==RECOVER)**

**{**

**back\_button(PAINT);**

**}**

**// else if(flag==DELETE)**

**// {**

**// setwritemode(XOR\_PUT);**

**// back\_button(PAINT);**

**// }**

**else {**

**//printf("flag error!");**

**delay(3000);**

**exit(1);**

**}**

**}**

**void string\_limitation(char \*string , int len)**

**{**

**int i;**

**char cpystring[80];**

**strcpy(cpystring,string);**

**for(i=0;i<(len-1);i++)**

**{**

**string[i] = cpystring[i];**

**}**

**string[i+1] = '~';**

**string[i+2] = '\0';**

**}**

**void warning(char \*msg,int nx,int ny,int lettersize)**

**{**

**int flag = 0;**

**int size;**

**void \*warning\_buffer;**

**int time = 0;**

**size = imagesize(180,220,460,300);**

**warning\_buffer = malloc(size);**

**if(warning\_buffer!=NULL)**

**getimage(180,220,460,300,warning\_buffer);**

**else**

**{**

**// perror("ERROR IN WARNING!");**

**// delay(3000);**

**// exit(1);**

**}**

**setfillstyle(SOLID\_FILL,LIGHTBLUE);**

**bar(180,220,460,300);**

**setfillstyle(SOLID\_FILL,BLUE);**

**bar(180,220,460,230);**

**bar(180,220,190,300);**

**bar(180,290,460,300);**

**bar(450,220,460,300);**

**setcolor(RED);**

**setlinestyle(SOLID\_LINE,0,NORM\_WIDTH);**

**line(450,220,460,220);**

**line(450,220,450,230);**

**line(450,230,460,230);**

**line(460,220,460,230);**

**line(450,220,460,230);**

**line(460,220,450,230);**

**setcolor(WHITE);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,lettersize);**

**outtextxy(nx,ny,msg);**

**mouseinit();**

**while(1)**

**{**

**newmouse(&MouseX,&MouseY,&press);**

**if(mouse\_press(450,220,460,230)==2)**

**{**

**if(flag!=1)**

**{**

**flag = 1;**

**MouseS = 1;**

**}**

**}**

**else if(mouse\_press(450,220,460,230)==1)**

**{**

**clrmous(MouseX,MouseY);**

**delay(100);**

**break;**

**}**

**else**

**{**

**if(flag!=0)**

**{**

**MouseS = 0;**

**flag = 0;**

**}**

**}**

**}**

**putimage(180,220,warning\_buffer,COPY\_PUT);**

**free(warning\_buffer);**

**}**

**void drop\_down\_menu(int x,int y,int wide,int h,int n,int lettersize,char \*\*msgs,int lightcolor,int darkcolor,char \*record)**

**{**

**int i;**

**int size;**

**void \*drop\_down\_buffer;**

**int flag = n+1;**

**int place = 0;**

**int num[10];**

**clrmous(MouseX,MouseY);**

**mouseinit();**

**if(y+n\*h<470) //判断是否超出屏幕**

**{**

**size = imagesize(x,y,x+wide,y+n\*h+5);**

**drop\_down\_buffer = malloc(size);**

**if(drop\_down\_buffer!=NULL)**

**getimage(x,y,x+wide,y+n\*h+5,drop\_down\_buffer);**

**else**

**{**

**// perror("ERROR IN REMEMBERING");**

**// delay(3000);**

**// exit(1);**

**}**

**setfillstyle(SOLID\_FILL,lightcolor);**

**bar(x,y,x+wide,y+n\*h);**

**setfillstyle(SOLID\_FILL,darkcolor);**

**bar(x,y,x+5,y+n\*h);**

**bar(x+wide-5,y,x+wide,y+n\*h);**

**for(i=0;i<=n;i++)**

**{**

**bar(x,y+i\*h,x+wide,y+i\*h+5);**

**}**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,lettersize);**

**for(i=0;i<n;i++)**

**{**

**outtextxy(x+10,y+i\*h+10,msgs[i]);**

**}**

**while(1)**

**{**

**place=0;**

**newmouse(&MouseX,&MouseY,&press);**

**for(i=0;i<n;i++)**

**{**

**if(mouse\_press(x,y+i\*h,x+wide,y+(i+1)\*h)==2)**

**{**

**if(flag!=i)**

**{**

**MouseS = 1;**

**flag = i;**

**num[i] = 1;**

**clrmous(MouseX,MouseY);**

**setcolor(CYAN);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,lettersize);**

**outtextxy(x+10,y+i\*h+10,msgs[i]);**

**}**

**place = 1;**

**}**

**else if(mouse\_press(x,y+i\*h,x+wide,y+(i+1)\*h)==1)**

**{**

**strcpy(record,msgs[i]);**

**clrmous(MouseX,MouseY);**

**putimage(x,y,drop\_down\_buffer,COPY\_PUT);**

**free(drop\_down\_buffer);**

**place = 2;**

**break;**

**}**

**if(flag!=i&&num[i]==1)**

**{**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,lettersize);**

**outtextxy(x+10,y+i\*h+10,msgs[i]);**

**}**

**}**

**if(place == 0)**

**{**

**MouseS = 0;**

**flag = n+1;**

**}**

**else if(place == 2)**

**{**

**break;**

**}**

**}**

**}**

**else**

**{**

**size = imagesize(x,y-n\*h-5,x+wide,y);**

**drop\_down\_buffer = malloc(size);**

**if(drop\_down\_buffer!=NULL)**

**getimage(x,y-n\*h-5,x+wide,y,drop\_down\_buffer);**

**else**

**{**

**// perror("ERROR IN REMEMBERING");**

**// delay(3000);**

**// exit(1);**

**}**

**setfillstyle(SOLID\_FILL,lightcolor);**

**bar(x,y,x+wide,y-n\*h);**

**setfillstyle(SOLID\_FILL,darkcolor);**

**bar(x,y,x+5,y-n\*h);**

**bar(x+wide-5,y,x+wide,y-n\*h);**

**for(i=0;i<=n;i++)**

**{**

**bar(x,y-i\*h,x+wide,y-i\*h-5);**

**}**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,lettersize);**

**for(i=0;i<n;i++)**

**{**

**outtextxy(x+10,y-(i+1)\*h+10,msgs[i]);**

**}**

**while(1)**

**{**

**place = 0;**

**newmouse(&MouseX,&MouseY,&press);**

**for(i=0;i<n;i++)**

**{**

**if(mouse\_press(x,y-(i+1)\*h,x+wide,y-i\*h)==2)**

**{**

**if(flag!=i)**

**{**

**MouseS = 1;**

**flag = i;**

**num[i] = 1;**

**clrmous(MouseX,MouseY);**

**setcolor(YELLOW);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,lettersize);**

**outtextxy(x+10,y-(i+1)\*h+10,msgs[i]);**

**}**

**place = 1;**

**}**

**else if(mouse\_press(x,y-(i+1)\*h,x+wide,y-i\*h)==1)**

**{**

**strcpy(record,msgs[i]);**

**clrmous(MouseX,MouseY);**

**putimage(x,y-n\*h-5,drop\_down\_buffer,COPY\_PUT);**

**free(drop\_down\_buffer);**

**place = 2;**

**break;**

**}**

**if(flag!=i&&num[i]==1)**

**{**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,lettersize);**

**outtextxy(x+10,y-(i+1)\*h+10,msgs[i]);**

**}**

**}**

**if(place == 0)**

**{**

**MouseS = 0;**

**flag = n+1;**

**}**

**else if(place == 2)**

**{**

**break;**

**}**

**}**

**}**

**}**

**/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*quit.c\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/**

**#include "quit.h"**

**#include "public.h"**

**#include "main.h"**

**void quit\_page(void)**

**{**

**int i=0,time=0,color=2;**

**char string[8][10]={"T","TH","THA","THAN","THANK","THANKY","THANKYO","THANKYOU"};**

**char (\*pstr)[10] = string;**

**cleardevice();**

**setbkcolor(WHITE);**

**do{**

**setcolor(color);**

**settextstyle(DEFAULT\_FONT, HORIZ\_DIR, 3);**

**outtextxy(80,160,pstr[i]);**

**i++;**

**time++;**

**color++;**

**if(color>15)**

**{**

**color = 2;**

**}**

**if(i>8)**

**{**

**i=0;**

**cleardevice();**

**continue;**

**}**

**delay(500);**

**}while(time<8);**

**closegraph();**

**}**

**/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*signup.c\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/**

**#include "signup.h"**

**#include "public.h"**

**#include "logfunc.h"**

**void signup\_bkpaint(int language)**

**{**

**setbkcolor(WHITE);**

**cleardevice();**

**clrmous(MouseX,MouseY);**

**if(language == ENGLISH)**

**{**

**setcolor(BLUE);**

**settextstyle(DEFAULT\_FONT , HORIZ\_DIR,3);**

**outtextxy(70, 100, "Please sign up here...");**

**}**

**else if(language == CHINESE)**

**{**

**puthz(80,75,"请在此处注册",48,48,BLUE);**

**}**

**if(language == ENGLISH)**

**{**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT , HORIZ\_DIR,2);**

**outtextxy(80, 170, "user :");**

**outtextxy(80, 240, "password :");**

**}**

**else if(language == CHINESE)**

**{**

**puthz(120,165,"用户名",32,32,DARKGRAY);**

**puthz(135,235,"密码",32,32,DARKGRAY);**

**}**

**printbox(255,155,560,205,DARKGRAY,2,5,5);**

**printbox(255,225,560,275,DARKGRAY,2,5,5);**

**printbox(320-40,300,320+40,300+40,DARKGRAY,2,5,5);**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT , HORIZ\_DIR,2);**

**outtextxy(306, 312, "OK");**

**if(language == ENGLISH)**

**{**

**settextstyle(DEFAULT\_FONT , HORIZ\_DIR , 1);**

**outtextxy(270,400,"---->RULE<----");**

**}**

**else if(language == CHINESE)**

**{**

**puthz(300,395,"注册规则",16,16,DARKGRAY);**

**}**

**back\_button(PAINT);**

**}**

**int signup\_page(int language)**

**{**

**int place=0;**

**int state1=0;//用户名**

**int state2=0;//密码**

**int num;**

**INFO \*user = (INFO \*)malloc(sizeof(INFO));**

**if(user != NULL) {**

**memset(user,0,sizeof(INFO));**

**}**

**signup\_bkpaint(language);**

**mouseinit();**

**while(1)**

**{**

**newmouse(&MouseX, &MouseY, &press);**

**if( mouse\_press(595,5,630,40)==2 )**

**{**

**MouseS = 1;**

**if( place==0 )**

**{**

**place=2;**

**back\_button(LIGHT);**

**}**

**}**

**else if( mouse\_press(595,5,630,40)==1 )//跳转login页面**

**{**

**free(user);**

**cleardevice();**

**return LOGIN;**

**}**

**else if( mouse\_press(285,315,350,340)==2 )//ok未按下**

**{**

**if(place == 0)**

**{**

**MouseS = 1;**

**place = 2;**

**ok\_button\_light();**

**}**

**}**

**else if( mouse\_press(285,315,350,340)==1 )//ok按下**

**{**

**if( user->name[0]=='\0' || user->password[0]=='\0') continue;**

**if( userinfo\_input(user, &state1, &state2,language) )**

**{**

**free(user);**

**user=NULL;**

**return LOGIN;**

**}**

**}**

**else if( mouse\_press(255,155,560,205)==2 )//用户名输入框未按**

**{**

**if(place==0)**

**{**

**MouseS = 2;**

**place = 4;//用户名输入框(255,155,560,205)**

**}**

**}**

**else if( mouse\_press(255,155,560,205)==1 )//用户名输入框按下**

**{**

**temp\_input(user->name , 266,170,17,16,20,WHITE,2);**

**}**

**else if( mouse\_press(255,225,560,275)==2 )//密码输入框未按**

**{**

**if(place==0)**

**{**

**MouseS = 2;**

**place = 5;//密码输入框(255,225,560,275)**

**}**

**}**

**else if( mouse\_press(255,225,560,275)==1 )//密码输入框按下**

**{**

**if( user->name[0] == '\0' ) continue;**

**temp\_input(user->password ,266,240,17,16,20,WHITE,2);**

**}**

**else if(mouse\_press(270,390,380,410)==2)**

**{**

**if(place==0)**

**{**

**MouseS = 1;**

**place = 6;**

**num = 1;**

**clrmous(MouseX,MouseY);**

**if(language == ENGLISH)**

**{**

**setcolor(CYAN);**

**settextstyle(DEFAULT\_FONT , HORIZ\_DIR , 1);**

**outtextxy(270,400,"---->RULE<----");**

**}**

**else if(language == CHINESE)**

**{**

**puthz(300,395,"注册规则",16,16,CYAN);**

**}**

**}**

**}**

**else if(mouse\_press(270,390,380,410)==1)**

**{**

**clrmous(MouseX,MouseY);**

**if (language == ENGLISH)**

**{**

**show\_rule\_english();**

**}**

**else if (language == CHINESE)**

**{**

**show\_rule\_chinese();**

**}**

**}**

**else {**

**if(place!=0)**

**{**

**MouseS=0;**

**place=0;**

**ok\_button\_recover();**

**back\_button(RECOVER);**

**}**

**}**

**if(place!=6&&num==1)**

**{**

**num = 0;**

**clrmous(MouseX,MouseY);**

**if(language == ENGLISH)**

**{**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT , HORIZ\_DIR , 1);**

**outtextxy(270,400,"---->RULE<----");**

**}**

**else if(language == CHINESE)**

**{**

**puthz(300,395,"注册规则",16,16,DARKGRAY);**

**}**

**}**

**}**

**}**

**void show\_rule\_english()**

**{**

**int size;**

**void \*rule\_buffer;**

**int flag;**

**size = imagesize(180,180,480,300);**

**rule\_buffer = malloc(size);**

**if(rule\_buffer!=NULL)**

**getimage(180,180,480,300,rule\_buffer);**

**else**

**{**

**// perror("ERROR IN WARNING!");**

**// delay(3000);**

**// exit(1);**

**}**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(180,180,480,300);**

**setfillstyle(SOLID\_FILL,BLUE);**

**bar(180,180,190,300);**

**bar(180,180,480,190);**

**bar(180,290,480,300);**

**bar(470,180,480,300);**

**setcolor(WHITE);**

**setlinestyle(SOLID\_LINE,0,NORM\_WIDTH);**

**line(470,180,480,180);**

**line(470,180,470,190);**

**line(480,180,480,190);**

**line(470,190,480,190);**

**line(470,180,480,190);**

**line(470,190,480,180);**

**setcolor(DARKGRAY);**

**settextstyle(DEFAULT\_FONT,HORIZ\_DIR,1);**

**outtextxy(195,215,"THE PASSWORD MUST INCLUDE:");**

**outtextxy(195,225,"1.CAPITALIZED LETTER");**

**outtextxy(195,235,"2.SHALL LETTER");**

**outtextxy(195,245,"3.NUMBER");**

**outtextxy(195,255,"4.AT LEAST 6 CHARACTERS ");**

**mouseinit();**

**while(1)**

**{**

**newmouse(&MouseX,&MouseY,&press);**

**if(mouse\_press(470,180,480,190)==2)**

**{**

**if(flag!=1)**

**{**

**MouseS = 1;**

**flag = 1;**

**}**

**}**

**else if(mouse\_press(470,180,480,190)==1)**

**{**

**clrmous(MouseX,MouseY);**

**putimage(180,180,rule\_buffer,COPY\_PUT);**

**free(rule\_buffer);**

**delay(60);**

**break;**

**}**

**else**

**{**

**if(flag!=0)**

**{**

**flag = 0;**

**MouseS = 0;**

**}**

**}**

**}**

**}**

**void show\_rule\_chinese()**

**{**

**int size;**

**void\* rule\_buffer;**

**int flag;**

**size = imagesize(180, 180, 480, 300);**

**rule\_buffer = malloc(size);**

**if (rule\_buffer != NULL)**

**getimage(180, 180, 480, 300, rule\_buffer);**

**else**

**{**

**// perror("ERROR IN WARNING!");**

**// delay(3000);**

**// exit(1);**

**}**

**setfillstyle(SOLID\_FILL, WHITE);**

**bar(180, 180, 480, 300);**

**setfillstyle(SOLID\_FILL, BLUE);**

**bar(180, 180, 190, 300);**

**bar(180, 180, 480, 190);**

**bar(180, 290, 480, 300);**

**bar(470, 180, 480, 300);**

**setcolor(WHITE);**

**setlinestyle(SOLID\_LINE, 0, NORM\_WIDTH);**

**line(470, 180, 480, 180);**

**line(470, 180, 470, 190);**

**line(480, 180, 480, 190);**

**line(470, 190, 480, 190);**

**line(470, 180, 480, 190);**

**line(470, 190, 480, 180);**

**puthz(195, 215, "密码必须包含大小写字母", 16, 20, DARKGRAY);**

**//puthz(195, 225, "大写字母", 16, 20, DARKGRAY);**

**puthz(195, 235, "数字和至少六个字符", 16, 20, DARKGRAY);**

**//puthz(195, 245, "数字和至少六个字符", 16, 20, DARKGRAY);**

**puthz(195, 255, "请点击右上角重新注册", 16, 20, DARKGRAY);**

**mouseinit();**

**while (1)**

**{**

**newmouse(&MouseX, &MouseY, &press);**

**if (mouse\_press(470, 180, 480, 190) == 2)**

**{**

**if (flag != 1)**

**{**

**MouseS = 1;**

**flag = 1;**

**}**

**}**

**else if (mouse\_press(470, 180, 480, 190) == 1)**

**{**

**clrmous(MouseX, MouseY);**

**putimage(180, 180, rule\_buffer, COPY\_PUT);**

**free(rule\_buffer);**

**delay(60);**

**break;**

**}**

**else**

**{**

**if (flag != 0)**

**{**

**flag = 0;**

**MouseS = 0;**

**}**

**}**

**}**

**}**

**/\*\*\*\*\*\*\*\*\*\*\*\*\*\*welcome.c\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/**

**#include "welcome.h"**

**#include "public.h"**

**#include "main.h"**

**void welcome\_screen(int language)**

**{**

**printbox(30,360,210,460,WHITE,1,5,5);**

**printbox(430,360,610,460,WHITE,1,5,5);**

**printbox(230,360,410,460,WHITE,1,5,5);**

**if(language == ENGLISH)**

**{**

**setcolor(WHITE);**

**settextstyle( DEFAULT\_FONT , HORIZ\_DIR , 2);**

**outtextxy( 75 , 405 , "LOG\_IN" );**

**outtextxy( 495 , 405 , "QUIT" );**

**outtextxy( 260,405,"LANGUAGE");**

**}**

**else if(language == CHINESE)**

**{**

**puthz(90,393,"登录",32,32,WHITE);**

**puthz(485,393,"退出",32,32,WHITE);**

**puthz(287,393,"语言",32,32,WHITE);**

**}**

**}**

**void put\_title(int language)**

**{**

**if(language == ENGLISH)**

**{**

**setcolor(WHITE);**

**settextstyle( DEFAULT\_FONT , HORIZ\_DIR , 3);**

**outtextxy( 10 , 50 , "DRONE AGRICULTURE DETECTOR");**

**}**

**else if(language == CHINESE)**

**{**

**puthz(60,25,"无人机喷洒农药模拟系统",48,48,WHITE);**

**}**

**//(\*color)++;**

**/\*if ((\*color) == 16)**

**{**

**\*color = 1;**

**}\*/**

**}**

**void drone(void)**

**{**

**int i;**

**int x0 = 320,y0 = 220;**

**setcolor(BLACK);**

**setfillstyle(SOLID\_FILL,BLACK);**

**bar(270,170,370,180);**

**bar(270,170,280,270);**

**bar(280,260,370,270);**

**bar(360,170,370,270);**

**settextstyle( DEFAULT\_FONT , HORIZ\_DIR , 5);**

**outtextxy( 303 , 200 , "C");**

**for(i=45;i<=80;i+=5)**

**{**

**bar(x0-i,y0-i,x0-(i-10),y0-(i-10));**

**bar(x0+(i-10),y0-i,x0+i,y0-(i-10));**

**bar(x0-i,y0+(i-10),x0-(i-10),y0+i);**

**bar(x0+(i-10),y0+(i-10),x0+i,y0+i);**

**}**

**line(0,340,640,340);**

**line(0,100,640,100);**

**}**

**void drone\_wing(int\* drone\_flag,int x,int y)**

**{**

**if((\*drone\_flag)==0)**

**{**

**printline(x-25,y-5,1,10,0,BLACK,5,0);**

**printline(x-30,y,1,5,0,BLACK,5,0);**

**printline(x-35,y+5,1,3,0,BLACK,5,0);**

**printline(x-40,y+10,1,3,0,BLACK,5,0);**

**printline(x-40,y+15,1,2,0,BLACK,5,0);**

**printline(x-40,y+20,1,1,0,BLACK,5,0);**

**printline(x+5,y-10,1,5,0,BLACK,5,0);**

**printline(x+15,y-15,1,3,0,BLACK,5,0);**

**printline(x+20,y-20,1,2,0,BLACK,5,0);**

**printline(x+25,y-25,1,1,0,BLACK,5,0);**

**(\*drone\_flag)=1;**

**return;**

**}**

**else if((\*drone\_flag)==1)**

**{**

**printline(x-15,y-5,1,3,0, BLACK,5,0);**

**printline(x-20,y,1,4,0, BLACK,5,0);**

**printline(x-20,y+5,1,3,0, BLACK,5,0);**

**printline(x-25,y+10,1,3,0, BLACK,5,0);**

**printline(x-25,y+15,1,2,0, BLACK,5,0);**

**printline(x-30,y+20,1,2,0, BLACK,5,0);**

**printline(x-30,y+20,1,1,0, BLACK,5,0);**

**printline(x,y-10,1,3,0, BLACK,5,0);**

**printline(x+5,y-15,1,4,0, BLACK,5,0);**

**printline(x+10,y-20,1,3,0, BLACK,5,0);**

**printline(x+15,y-25,1,2,0, BLACK,5,0);**

**printline(x+20,y-30,1,1,0, BLACK,5,0);**

**(\*drone\_flag)=2;**

**return;**

**}**

**else if((\*drone\_flag)==2)**

**{**

**printline(x-5,y-5,1,1,0, BLACK,5,0);**

**printline(x-10,y-10,1,3,0, BLACK,5,0);**

**printline(x-15,y-15,1,4,0, BLACK,5,0);**

**printline(x-20,y-20,1,4,0, BLACK,5,0);**

**printline(x-30,y-25,1,5,0, BLACK,5,0);**

**printline(x,y,1,2,0, BLACK,5,0);**

**printline(x,y+5,1,3,0, BLACK,5,0);**

**printline(x+5,y+10,1,3,0, BLACK,5,0);**

**printline(x+10,y+15,1,4,0, BLACK,5,0);**

**printline(x+15,y+20,1,5,0, BLACK,5,0);**

**(\*drone\_flag)=0;**

**return;**

**}**

**}**

**int welcome\_page(int \*language)**

**{**

**int colorset = 1;**

**int flag = 0;**

**int num1 = 0;**

**int num2 = 0;**

**int num3 = 0;**

**int drone\_flag = 2;**

**int time = 0;**

**int now\_language;**

**char \*setlanguage[2] ={"CHINESE","ENGLISH"};**

**char choose\_language[10];**

**memset(choose\_language,0,sizeof(choose\_language));**

**mouseinit();**

**cleardevice();**

**setbkcolor(BLACK);**

**now\_language = (\*language);**

**welcome\_screen(now\_language);**

**drone();**

**while(1)**

**{**

**if(time%250==0)**

**{**

**clrmous(MouseX,MouseY);**

**setfillstyle(SOLID\_FILL,WHITE);**

**bar(0,100,640,340);**

**drone();**

**drone\_wing(&drone\_flag,240,140);**

**drone\_wing(&drone\_flag,400,140);**

**drone\_wing(&drone\_flag,240,300);**

**drone\_wing(&drone\_flag,400,300);**

**}**

**time++;**

**newmouse(&MouseX,&MouseY,&press);**

**put\_title(now\_language);**

**if(mouse\_press(30,360,210,460)==2)**

**{**

**if(flag!=1)**

**{**

**MouseS = 1;**

**flag = 1;**

**num1 = 1;**

**welcome\_buttons\_light(flag,now\_language);**

**}**

**}**

**else if(mouse\_press(430,360,610,460)==2)**

**{**

**if(flag!=2)**

**{**

**MouseS = 1;**

**flag = 2;**

**num2 = 2;**

**welcome\_buttons\_light(flag,now\_language);**

**}**

**}**

**else if(mouse\_press(230,360,410,460)==2)**

**{**

**if(flag!=3)**

**{**

**MouseS = 1;**

**flag = 3;**

**num3 = 3;**

**welcome\_buttons\_light(flag,now\_language);**

**}**

**}**

**else**

**{**

**MouseS = 0;**

**flag = 0;**

**}**

**if(mouse\_press(30,360,210,460)==1)**

**{**

**return 1;**

**}**

**else if(mouse\_press(430,360,610,460)==1)**

**{**

**return QUIT;**

**}**

**else if(mouse\_press(230,360,410,460)==1)**

**{**

**drop\_down\_menu(230,360,180,40,2,2,setlanguage,LIGHTGRAY,DARKGRAY,choose\_language);**

**delay(100);**

**if(strcmp(choose\_language,"CHINESE")==0)**

**{**

**(\*language) = CHINESE;**

**return WELCOME;**

**}**

**else if(strcmp(choose\_language,"ENGLISH")==0)**

**{**

**(\*language) = ENGLISH;**

**return WELCOME;**

**}**

**}**

**if(flag!=1&&num1==1)**

**{**

**welcome\_buttons\_recovery(num1,now\_language);**

**num1 = 0;**

**}**

**else if(flag!=2&&num2==2)**

**{**

**welcome\_buttons\_recovery(num2,now\_language);**

**num2 = 0;**

**}**

**else if(flag!=3&&num3==3)**

**{**

**welcome\_buttons\_recovery(num3,now\_language);**

**num3 = 0;**

**}**

**}**

**}**

**void welcome\_buttons\_light(int flag,int language)**

**{**

**clrmous(MouseX,MouseY);**

**if(flag==1)**

**{**

**printbox(30,360,210,460,YELLOW,1,5,5);**

**if(language == ENGLISH)**

**{**

**setcolor(WHITE);**

**settextstyle( DEFAULT\_FONT , HORIZ\_DIR , 2);**

**outtextxy( 75 , 405 , "LOG\_IN" );**

**}**

**else if(language == CHINESE)**

**{**

**puthz(90,393,"登录",32,32,WHITE);**

**}**

**}**

**else if(flag==2)**

**{**

**printbox(430,360,610,460,YELLOW,1,5,5);**

**if(language == ENGLISH)**

**{**

**setcolor(WHITE);**

**settextstyle( DEFAULT\_FONT , HORIZ\_DIR , 2);**

**outtextxy( 495 , 405 , "QUIT" );**

**}**

**else if(language == CHINESE)**

**{**

**puthz(485,393,"退出",32,32,WHITE);**

**}**

**}**

**else if(flag==3)**

**{**

**printbox(230,360,410,460,YELLOW,1,5,5);**

**if(language == ENGLISH)**

**{**

**setcolor(WHITE);**

**settextstyle( DEFAULT\_FONT , HORIZ\_DIR , 2);**

**outtextxy( 260,405,"LANGUAGE");**

**}**

**else if(language == CHINESE)**

**{**

**puthz(287,393,"语言",32,32,WHITE);**

**}**

**}**

**}**

**void welcome\_buttons\_recovery(int num,int language)**

**{**

**clrmous(MouseX,MouseY);**

**if(num == 1)**

**{**

**printbox(30,360,210,460,WHITE,1,5,5);**

**if(language == ENGLISH)**

**{**

**setcolor(WHITE);**

**settextstyle( DEFAULT\_FONT , HORIZ\_DIR , 2);**

**outtextxy( 75 , 405 , "LOG\_IN" );**

**}**

**else if(language == CHINESE)**

**{**

**puthz(90,393,"登录",32,32,WHITE);**

**}**

**}**

**else if(num == 2)**

**{**

**printbox(430,360,610,460,WHITE,1,5,5);**

**if(language == ENGLISH)**

**{**

**setcolor(WHITE);**

**settextstyle( DEFAULT\_FONT , HORIZ\_DIR , 2);**

**outtextxy( 495 , 405 , "QUIT" );**

**}**

**else if(language == CHINESE)**

**{**

**puthz(485,393,"退出",32,32,WHITE);**

**}**

**}**

**else if(num == 3)**

**{**

**printbox(230,360,410,460,WHITE,1,5,5);**

**if(language == ENGLISH)**

**{**

**setcolor(WHITE);**

**settextstyle( DEFAULT\_FONT , HORIZ\_DIR , 2);**

**outtextxy( 260,405,"LANGUAGE");**

**}**

**else if(language == CHINESE)**

**{**

**puthz(287,393,"语言",32,32,WHITE);**

**}**

**}**

**}**

**七.课设感想：**

**吴立锟：**

**在这个项目开发过程中，我深入学习并实践了图形化编程、文件系统操作、结构体管理、路径规划算法等多个知识点。**

**从简单的页面绘制到无人机喷洒路径的动态模拟，每一行代码都见证了我对逻辑严谨性和用户交互体验的不断打磨。尤其在实现多架无人机协同飞行和喷洒任务时，我体会到了算法设计和动画控制的复杂性，也意识到模块化、清晰注释和状态管理的重要性。**

**一次次调试和优化过程中，不仅锻炼了我的编码能力，也提升了对系统结构的整体把控力。这段经历让我更自信地面对复杂工程，也更珍惜每一次“从0到1”的成长。**

**迟泰炎：**

**尽管有了一个学期的 C 语言基础作为底子，但是实际上根据课题自主设计并编写一 个程序对我们而言也是相当巨大的挑战。因为工程部分的相关内容大部分在上学期的课程中没有系统性的学习，所以课设的最开始我们进度缓慢，基本上是一边摸索着一边缓慢地熟悉软件和相关功能。**

**三月底到四月，面对部分功能仍未实现的急迫情况，通过尽力寻找时间和示例代码，这对于我这部分功能的编写很有帮助。感谢c语言程序设计课本对于编写代码的巨大作用，里面的规范代码对我来说作用很大.**

**感谢人工智能2301班组织的学风建设活动，让我和学长进行了深入交流，学习了debug技术；感谢刘导，在南一楼陪我做c课设到凌晨；感谢吴立锟，金子涵，郭瀚泽，梁思源，李宇鑫等同学，我们互帮互助交流想法，解决了诸多难题；感谢AirHUST的飞控脚本，为我们提供了真实可信的飞行路线规划算法；最重要的是感谢c语言课程设计的各位老师，您们的付出，指导我们完成了这份课设，为我们的未来提供了宝贵经验。**

**不禁想起来光电大楼，我在那里多次通宵。手边放着一瓶可乐，耳机里听着M83的《Midnight City》，坐在灰扑扑的沙发上，抬头时看到了安静的星空，也看到了震撼人心的关山岭晨光。**

**八.代码分工：**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **迟泰炎：** | field.c | 138 | **吴立锟：** | home.c | 375 |
|  | fieldfunc.c | 791 |  | language.c | 127 |
|  | plant.c | 399 |  | drone.c | 362 |
|  | pestcide.c | 833 |  | dronefunc.c | 318 |
|  | draw.c | 930 |  | flyfunc.c | 458 |
|  | timer.c | 18 |  | detect.c | 1117 |
|  | logs | 507 |  | detectf.c | 791 |
|  | public.c | 265 |  | house.c | 268 |
|  |  |  |  | main.c | 64 |
|  | **总计** | **3881** |  | **总计** | **3880** |