# Приложение

Класс Form1:

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.IO;

using System.Linq;

using System.Text;

using System.Windows.Forms;

using System.Diagnostics;

namespace MastersWork {

public partial class Form1 : Form {

public Form1() {

InitializeComponent();

OpenFile.Filter = "Text files(\*.cpp)|\*.cpp|All files(\*.\*)|\*.\*";

OpenFile.InitialDirectory = AppDomain.CurrentDomain.RelativeSearchPath;

}

public Dictionary<string, string> lstWithNameAndTypeDataContainers;

public List<string> lstWithTypeContainers;

public List<int> lstWithCountOperationFindElementsInContainers;

public List<int> lstWithIndexStrWithContainers;

private void ToChooseFile\_Click(object sender, EventArgs e) {

if (OpenFile.ShowDialog() == DialogResult.Cancel)

return;

richTextBox1.Text = ReadFile(OpenFile.FileName); ;

statusStrip1.Visible = true;

toolStripStatusLabel1.Visible = true;

toolStripStatusLabel1.Text = OpenFile.FileName;

}

private string ReadFile(string path) {

string text = "";

try {

using (StreamReader read = new StreamReader(path, System.Text.Encoding.Default)) {

string line = "";

while ((line = read.ReadLine()) != null) {

text += line + '\n';

}

}

}

catch (Exception ex) {

MessageBox.Show("Ошибка чтения из файла: " + ex.Message + "\n" + ex.Source);

}

return text;

}

private void CodeAnalysis\_Click(object sender, EventArgs e) {

if (OpenFile.FileName == "") {

MessageBox.Show("Не выбран файл");

}

else {

ParsingClass parsing = new ParsingClass(richTextBox1.Text);

parsing.ParsingText();

lstWithNameAndTypeDataContainers = parsing.infoContainers;

lstWithTypeContainers = parsing.lstWithTypeIter;

lstWithCountOperationFindElementsInContainers = parsing.countOperationFindElement;

lstWithIndexStrWithContainers = parsing.indexStrContainers;

MyTable.Visible = true;

MyTable.RowCount = lstWithNameAndTypeDataContainers.Count;

ToFillTable();

CalculationWin.Visible = true;

}

}

/\*

\* Заполнение таблицы начальными значениями

\*/

private void ToFillTable() {

int index = 0;

MyTable.Height = dataGridViewHeight();

foreach (KeyValuePair<string, string> tmp in lstWithNameAndTypeDataContainers) {

MyTable.Rows[index].Cells[1].Value = tmp.Key;

MyTable.Rows[index].Cells[2].Value = tmp.Value;

index++;

}

for (int i = 0; i < lstWithNameAndTypeDataContainers.Count; i++) {

MyTable.Rows[i].Cells[0].Value = false;

MyTable.Rows[i].Cells[5].Value = "???";

MyTable.Rows[i].Cells[3].Value = lstWithTypeContainers[i];

MyTable.Rows[i].Cells[4].Value = lstWithIndexStrWithContainers[i];

MyTable.Rows[i].Cells[6].Value = lstWithCountOperationFindElementsInContainers[i];

}

}

private int dataGridViewHeight() {

int sum = MyTable.ColumnHeadersHeight;

foreach (DataGridViewRow row in MyTable.Rows)

sum += row.Height + 1;

return sum;

}

public double myWin;

double v, resultV, scomp, smap;

int n;

private void AutoCalcWinButton\_Click(object sender, EventArgs e) {

if (LimitMemory.Text == "" || CountIteration.Text == "" || IsCheckToPressButton() == false)

MessageBox.Show("Не все параметры введены!");

else {

Stopwatch st = new Stopwatch();

st.Start();

byte[] perebWinMonte = new byte[lstWithNameAndTypeDataContainers.Count];

myWin = double.MaxValue; // лучшая значение целевой функции

resultV = 0; // число задействованной памяти в лучшем переборе

Random rnd = new Random();

double[] arrayV = new double[lstWithNameAndTypeDataContainers.Count]; // массив с занимаемой памятью каждого контейнера

byte[] perebor = new byte[lstWithNameAndTypeDataContainers.Count]; // массив выигрышного перебора

v = Convert.ToDouble(LimitMemory.Text);

n = Convert.ToInt32(CountIteration.Text);

scomp = Convert.ToDouble(SCompareText.Text);

smap = Convert.ToDouble(SMapText.Text);

for (byte pere = 0; pere < perebor.Length; pere++) {

MyTable.Rows[pere].Cells[0].Value = 0;

}

if (flagAllSolution.Checked == true)

AllSolutionsTxtBox.Visible = true;

else

AllSolutionsTxtBox.Visible = false;

for (int i = 0; i < n; i++) {

for (int p = 0; p < perebor.Length; p++) perebor[p] = (byte)rnd.Next(0, 2);

double tmpF = 0;

double tmpV = 0;

double[] tmpArr = new double[lstWithNameAndTypeDataContainers.Count];

for (int j = 0; j < perebor.Length; j++) {

if(flagAllSolution.Checked == true) AllSolutionsTxtBox.Text += perebor[j] + " ";

if (perebor[j] == 1) {

tmpV += Convert.ToInt16(MyTable.Rows[j].Cells[5].Value) \* ToDefineType(MyTable.Rows[j].Cells[2].Value.ToString());

double t = ToDefineType(MyTable.Rows[j].Cells[2].Value.ToString()) / scomp;

tmpF += Convert.ToInt16(MyTable.Rows[j].Cells[6].Value) \* t \* Math.Log(Convert.ToInt16(MyTable.Rows[j].Cells[5].Value), 2) + ((Convert.ToInt16(MyTable.Rows[j].Cells[5].Value) \* ToDefineType(MyTable.Rows[j].Cells[2].Value.ToString())) / smap);

tmpArr[j] = Convert.ToInt16(MyTable.Rows[j].Cells[5].Value) \* ToDefineType(MyTable.Rows[j].Cells[2].Value.ToString());

} else {

if (MyTable.Rows[j].Cells[3].Value.ToString() == "vector") {

double t = ToDefineType(MyTable.Rows[j].Cells[2].Value.ToString()) / scomp;

tmpF += Convert.ToInt16(MyTable.Rows[j].Cells[6].Value) \* t \* (Convert.ToInt16(MyTable.Rows[j].Cells[5].Value) / 2);

}

else {

double t = ToDefineType(MyTable.Rows[j].Cells[2].Value.ToString()) / scomp;

tmpF += Convert.ToInt16(MyTable.Rows[j].Cells[6].Value) \* t \* 15 \* (Convert.ToInt16(MyTable.Rows[j].Cells[5].Value) / 2);

}

}

}

if (flagAllSolution.Checked == true) AllSolutionsTxtBox.Text += tmpF + " " + tmpV + "\n";

if (tmpV <= v && myWin > tmpF) {

myWin = tmpF;

resultV = tmpV;

Array.Copy(tmpArr, arrayV, arrayV.Length);

Array.Copy(perebor, perebWinMonte, perebor.Length);

}

}

for (int i = 0; i < perebor.Length; i++) {

if (perebWinMonte[i] == 0) {

MyTable.Rows[i].Cells[8].Style.BackColor = Color.Red;

MyTable.Rows[i].Cells[8].Value = "нет";

}

else {

MyTable.Rows[i].Cells[0].Value = true;

MyTable.Rows[i].Cells[8].Style.BackColor = Color.Green;

MyTable.Rows[i].Cells[8].Value = "да";

}

MyTable.Rows[i].Cells[7].Value = arrayV[i];

}

labelAWithWin.Text = "";

labelAWithWin.Text = "F = " + myWin + " затрачено " + resultV + " байт";

st.Stop();

MessageBox.Show("Time: " + st.ElapsedMilliseconds);

}

}

bool IsCheckToPressButton() {

for (int i = 0; i < lstWithNameAndTypeDataContainers.Count; i++) {

if ((MyTable.Rows[i].Cells[5].Value.Equals("???")) || (MyTable.Rows[i].Cells[5].Value.Equals("")) || (Convert.ToInt16(MyTable.Rows[i].Cells[5].Value) <= 0))

return false;

}

return true;

}

double ToDefineType(string type) {

switch (type) {

case "byte":

return 1;

case "int":

return 4;

case "double":

return 8;

case "float":

return 4;

case "char":

return 2;

default:

return 4;

}

}

private void SMapText\_Enter(object sender, EventArgs e) {

SMapText.Text = "";

SMapText.ForeColor = Color.Black;

}

private void SMapText\_Leave(object sender, EventArgs e) {

if (SMapText.Text == "") {

SMapText.Text = "10000000000";

SMapText.ForeColor = Color.Silver;

}

}

private void SCompareText\_Enter(object sender, EventArgs e) {

SCompareText.Text = "";

SCompareText.ForeColor = Color.Black;

}

int k = 0;

private void MyTable\_CurrentCellDirtyStateChanged(object sender, EventArgs e) {

if (Convert.ToInt16(MyTable.SelectedCells[0].ColumnIndex) != 0)

return;

k = 0;

MyTable.EndEdit();

if (k == 1)

return;

else {

if (LimitMemory.Text == "" || CountIteration.Text == "" || IsCheckToPressButton() == false) {

MyTable.Rows[MyTable.SelectedCells[0].RowIndex].Cells[0].Value = 0;

MessageBox.Show("Не все параметры введены!");

k = 1;

return;

}

else {

k++;

v = Convert.ToDouble(LimitMemory.Text);

int index = MyTable.SelectedCells[0].RowIndex;

if (Convert.ToBoolean(MyTable.CurrentCell.Value) == true) {

resultV += Convert.ToInt16(MyTable.Rows[index].Cells[5].Value) \* ToDefineType(MyTable.Rows[index].Cells[2].Value.ToString());

MyTable.Rows[index].Cells[7].Value = resultV;

scomp = Convert.ToDouble(SCompareText.Text);

smap = Convert.ToDouble(SMapText.Text);

double t = ToDefineType(MyTable.Rows[index].Cells[2].Value.ToString()) / scomp;

myWin += Convert.ToInt16(MyTable.Rows[index].Cells[6].Value) \* t \* Math.Log(Convert.ToInt16(MyTable.Rows[index].Cells[5].Value), 2) + ((Convert.ToInt16(MyTable.Rows[index].Cells[5].Value) \* ToDefineType(MyTable.Rows[index].Cells[2].Value.ToString())) / smap);

if (resultV <= v) {

labelAWithWin.Text = "";

labelAWithWin.Text = "F = " + myWin + " затрачено " + resultV + " байт";

}

else {

labelAWithWin.Text = "";

labelAWithWin.Text = "Ограничение не выполняется, " + " затрачено: " + resultV + " байт";

}

return;

}

else {

scomp = Convert.ToDouble(SCompareText.Text);

smap = Convert.ToDouble(SMapText.Text);

resultV -= Convert.ToInt16(MyTable.Rows[index].Cells[5].Value) \* ToDefineType(MyTable.Rows[index].Cells[2].Value.ToString());

double t = ToDefineType(MyTable.Rows[index].Cells[2].Value.ToString()) / scomp;

myWin -= Convert.ToInt16(MyTable.Rows[index].Cells[6].Value) \* t \* Math.Log(Convert.ToInt16(MyTable.Rows[index].Cells[5].Value), 2) + ((Convert.ToInt16(MyTable.Rows[index].Cells[5].Value) \* ToDefineType(MyTable.Rows[index].Cells[2].Value.ToString())) / smap);

MyTable.Rows[index].Cells[6].Value = 0;

if (resultV <= v) {

labelAWithWin.Text = "";

labelAWithWin.Text = "F = " + myWin + " затрачено " + resultV + " байт";

}

else {

labelAWithWin.Text = "";

labelAWithWin.Text = "Ограничение не выполняется, " + " затрачено: " + resultV + " байт";

}

return;

}

}

}

}

private void SCompareText\_Leave(object sender, EventArgs e) {

if (SCompareText.Text == "") {

SCompareText.Text = "10000000000000";

SCompareText.ForeColor = Color.Silver;

}

}

private void CountIteration\_Enter(object sender, EventArgs e) {

CountIteration.Text = "";

CountIteration.ForeColor = Color.Black;

}

private void CountIteration\_Leave(object sender, EventArgs e) {

if (CountIteration.Text == "") {

CountIteration.Text = "10000";

CountIteration.ForeColor = Color.Silver;

}

}

}

}

Класс ParsingClass:

using System;

using System.Collections.Generic;

using System.Text.RegularExpressions;

namespace MastersWork {

class ParsingClass {

private byte[] mas = new byte[2]; // 0 - открывающие скобки, 1 - закрывающие

private List<string> lstWithBlocks = new List<string>(); // контейнер с блоками циклов

public List<string> lstWithTypeIter = new List<string>(); // контейнер, где хранятся типы итераторов/контейнеров C++

public Dictionary<string, string> infoContainers = new Dictionary<string, string>(); // массив, который будет передаваться в основную программу, содержащий имя и тип данных контейнера

private List<int> indexList = new List<int>(); // контейнер с номерами строк циклов

public List<int> countOperationFindElement = new List<int>(); // массив, который будет передаваться в основную программу, содержащий число операций поиска

public List<int> indexStrContainers = new List<int>(); // массив, который будет передаваться в основную программу, содержащий строки, где указан неоптимизированный код

private string ProgramText { get; }

public ParsingClass(string programText) {

ProgramText = programText;

}

/\*

\* Разбиваем строку на массив строк, где разделитель - символ перехода на новую строчку.

\* Каждую строчку проверяем, используя регулярное выражение.

\* Если строка подходит, то записываем её во временную строку а также запоминаем строчку с началом цикла.

\* Так до тех пор, пока не будет найдена последняя закрывающая скобка.

\* mas[0] == mas[1]

\* Дойдя до конца блока, записываем его в специальный список, но прежде форматируем

\*/

public void ParsingText() {

string[] splitText = ProgramText.Split('\n');

Regex regex = new Regex(@"\w\*for\w\*");

Regex pattern = new Regex(@"\s+");

for (int i = 0; i < splitText.Length; i++) {

if (regex.IsMatch(splitText[i])) {

indexList.Add(i + 1);

string strWithFor = "";

do {

string str = splitText[i];

SearchOpenBracket(str);

SearchCloseBracket(str);

strWithFor += str;

i++;

} while (mas[0] != mas[1]);

i--;

mas[0] = 0;

mas[1] = 0;

lstWithBlocks.Add(strWithFor);

}

}

SearchIterators(splitText);

}

private void SearchOpenBracket(string str) {

int pos = 0;

while (str.IndexOf('{', pos) != -1) {

mas[0]++;

pos = str.IndexOf('{', pos) + 1;

}

}

private void SearchCloseBracket(string str) {

int pos = 0;

while (str.IndexOf('}', pos) != -1) {

mas[1]++;

pos = str.IndexOf('}', pos) + 1;

}

}

/\*Поиск всех контейнеров типа list и vector с помощью регулярных выражений\*/

private void SearchIterators(string[] splitText) {

Regex regexList = new Regex(@"std::list\w\*");

Regex regexVector = new Regex(@"std::vector\w\*");

for (int i = 0; i < splitText.Length; i++) {

if (regexList.IsMatch(splitText[i]) || regexVector.IsMatch(splitText[i])) {

string containerTypeData = splitText[i].Substring(splitText[i].IndexOf('<') + 1, splitText[i].IndexOf('>') - splitText[i].IndexOf('<') - 1);

string containerName = splitText[i].Split(' ', '=', ';')[1];

string containerType = splitText[i].Substring(splitText[i].LastIndexOf(':') + 1, splitText[i].IndexOf('<') - splitText[i].LastIndexOf(':') - 1);

IdentIterators(containerName, containerTypeData, containerType);

}

}

}

private void IdentIterators(string name, string typeD, string cType) {

List<string> tmpMas = new List<string>();

for (int i = 0; i < lstWithBlocks.Count; i++) {

Regex regex = new Regex(@"\w\*::find");

if (regex.IsMatch(lstWithBlocks[i])){

string[] masString = lstWithBlocks[i].Split('\t');

for (int j = 2; j < masString.Length; j++) {

if (masString[j].Contains(name) && !tmpMas.Contains(name)) {

int countOperationFind = Convert.ToInt16(masString[1].Substring(masString[1].IndexOf('<') + 1, masString[1].LastIndexOf(';') - masString[1].IndexOf('<') - 1));

indexStrContainers.Add(indexList[i]);

countOperationFindElement.Add(countOperationFind);

tmpMas.Add(name);

infoContainers.Add(name, typeD);

lstWithTypeIter.Add(cType);

break;

}

}

}

}

}

}

}

Класс Program.cs:

using System;

using System.Collections.Generic;

using System.Linq;

using System.Threading.Tasks;

using System.Windows.Forms;

namespace MastersWork {

static class Program {

/// <summary>

/// Главная точка входа для приложения.

/// </summary>

[STAThread]

static void Main() {

Application.EnableVisualStyles();

Application.SetCompatibleTextRenderingDefault(false);

Application.Run(new Form1());

}

}

}

Form1.Designer.cs

namespace MastersWork {

partial class Form1 {

/// <summary>

/// Обязательная переменная конструктора.

/// </summary>

private System.ComponentModel.IContainer components = null;

/// <summary>

/// Освободить все используемые ресурсы.

/// </summary>

/// <param name="disposing">истинно, если управляемый ресурс должен быть удален; иначе ложно.</param>

protected override void Dispose(bool disposing) {

if (disposing && (components != null)) {

components.Dispose();

}

base.Dispose(disposing);

}

/// <summary>

/// Требуемый метод для поддержки конструктора — не изменяйте

/// содержимое этого метода с помощью редактора кода.

/// </summary>

private void InitializeComponent() {

System.ComponentModel.ComponentResourceManager resources = new System.ComponentModel.ComponentResourceManager(typeof(Form1));

this.groupBox1 = new System.Windows.Forms.GroupBox();

this.richTextBox1 = new System.Windows.Forms.RichTextBox();

this.CodeAnalysis = new System.Windows.Forms.Button();

this.ToChooseFile = new System.Windows.Forms.Button();

this.OpenFile = new System.Windows.Forms.OpenFileDialog();

this.statusStrip1 = new System.Windows.Forms.StatusStrip();

this.toolStripStatusLabel1 = new System.Windows.Forms.ToolStripStatusLabel();

this.CalculationWin = new System.Windows.Forms.GroupBox();

this.flagAllSolution = new System.Windows.Forms.CheckBox();

this.SCompareText = new System.Windows.Forms.TextBox();

this.SMapText = new System.Windows.Forms.TextBox();

this.label3 = new System.Windows.Forms.Label();

this.label2 = new System.Windows.Forms.Label();

this.label4 = new System.Windows.Forms.Label();

this.label1 = new System.Windows.Forms.Label();

this.label5 = new System.Windows.Forms.Label();

this.label6 = new System.Windows.Forms.Label();

this.CountIteration = new System.Windows.Forms.TextBox();

this.label9 = new System.Windows.Forms.Label();

this.AutoCalcWinButton = new System.Windows.Forms.Button();

this.labelAWithWin = new System.Windows.Forms.Label();

this.label7 = new System.Windows.Forms.Label();

this.label8 = new System.Windows.Forms.Label();

this.LimitMemory = new System.Windows.Forms.TextBox();

this.MyTable = new System.Windows.Forms.DataGridView();

this.Column1 = new System.Windows.Forms.DataGridViewCheckBoxColumn();

this.Column2 = new System.Windows.Forms.DataGridViewTextBoxColumn();

this.Column8 = new System.Windows.Forms.DataGridViewTextBoxColumn();

this.Column6 = new System.Windows.Forms.DataGridViewTextBoxColumn();

this.Column3 = new System.Windows.Forms.DataGridViewTextBoxColumn();

this.Column5 = new System.Windows.Forms.DataGridViewTextBoxColumn();

this.Column9 = new System.Windows.Forms.DataGridViewTextBoxColumn();

this.Column7 = new System.Windows.Forms.DataGridViewTextBoxColumn();

this.Column4 = new System.Windows.Forms.DataGridViewTextBoxColumn();

this.AllSolutionsTxtBox = new System.Windows.Forms.RichTextBox();

this.groupBox1.SuspendLayout();

this.statusStrip1.SuspendLayout();

this.CalculationWin.SuspendLayout();

((System.ComponentModel.ISupportInitialize)(this.MyTable)).BeginInit();

this.SuspendLayout();

//

// groupBox1

//

this.groupBox1.Controls.Add(this.richTextBox1);

this.groupBox1.Font = new System.Drawing.Font("Times New Roman", 15.75F, System.Drawing.FontStyle.Regular, System.Drawing.GraphicsUnit.Point, ((byte)(204)));

this.groupBox1.Location = new System.Drawing.Point(8, 10);

this.groupBox1.Name = "groupBox1";

this.groupBox1.Size = new System.Drawing.Size(494, 494);

this.groupBox1.TabIndex = 11;

this.groupBox1.TabStop = false;

this.groupBox1.Text = "Код программы C++";

//

// richTextBox1

//

this.richTextBox1.Font = new System.Drawing.Font("Times New Roman", 9.75F, System.Drawing.FontStyle.Regular, System.Drawing.GraphicsUnit.Point, ((byte)(204)));

this.richTextBox1.Location = new System.Drawing.Point(6, 23);

this.richTextBox1.Name = "richTextBox1";

this.richTextBox1.ReadOnly = true;

this.richTextBox1.Size = new System.Drawing.Size(478, 467);

this.richTextBox1.TabIndex = 6;

this.richTextBox1.Text = "";

//

// CodeAnalysis

//

this.CodeAnalysis.Font = new System.Drawing.Font("Microsoft Sans Serif", 9.75F, System.Drawing.FontStyle.Regular, System.Drawing.GraphicsUnit.Point, ((byte)(204)));

this.CodeAnalysis.Location = new System.Drawing.Point(512, 81);

this.CodeAnalysis.Name = "CodeAnalysis";

this.CodeAnalysis.Size = new System.Drawing.Size(125, 43);

this.CodeAnalysis.TabIndex = 10;

this.CodeAnalysis.Text = "Начать анализ участка кода";

this.CodeAnalysis.UseVisualStyleBackColor = true;

this.CodeAnalysis.Click += new System.EventHandler(this.CodeAnalysis\_Click);

//

// ToChooseFile

//

this.ToChooseFile.Font = new System.Drawing.Font("Microsoft Sans Serif", 9.75F, System.Drawing.FontStyle.Regular, System.Drawing.GraphicsUnit.Point, ((byte)(204)));

this.ToChooseFile.Location = new System.Drawing.Point(512, 22);

this.ToChooseFile.Name = "ToChooseFile";

this.ToChooseFile.Size = new System.Drawing.Size(125, 35);

this.ToChooseFile.TabIndex = 9;

this.ToChooseFile.Text = "Выберите файл";

this.ToChooseFile.UseVisualStyleBackColor = true;

this.ToChooseFile.Click += new System.EventHandler(this.ToChooseFile\_Click);

//

// OpenFile

//

this.OpenFile.FileName = "OpenFile";

//

// statusStrip1

//

this.statusStrip1.Items.AddRange(new System.Windows.Forms.ToolStripItem[] {

this.toolStripStatusLabel1});

this.statusStrip1.Location = new System.Drawing.Point(0, 530);

this.statusStrip1.Name = "statusStrip1";

this.statusStrip1.Size = new System.Drawing.Size(1039, 22);

this.statusStrip1.TabIndex = 7;

this.statusStrip1.Text = "statusStrip1";

this.statusStrip1.Visible = false;

//

// toolStripStatusLabel1

//

this.toolStripStatusLabel1.Name = "toolStripStatusLabel1";

this.toolStripStatusLabel1.Size = new System.Drawing.Size(118, 17);

this.toolStripStatusLabel1.Text = "toolStripStatusLabel1";

//

// CalculationWin

//

this.CalculationWin.AutoSize = true;

this.CalculationWin.Controls.Add(this.flagAllSolution);

this.CalculationWin.Controls.Add(this.SCompareText);

this.CalculationWin.Controls.Add(this.SMapText);

this.CalculationWin.Controls.Add(this.label3);

this.CalculationWin.Controls.Add(this.label2);

this.CalculationWin.Controls.Add(this.label4);

this.CalculationWin.Controls.Add(this.label1);

this.CalculationWin.Controls.Add(this.label5);

this.CalculationWin.Controls.Add(this.label6);

this.CalculationWin.Controls.Add(this.CountIteration);

this.CalculationWin.Controls.Add(this.label9);

this.CalculationWin.Controls.Add(this.AutoCalcWinButton);

this.CalculationWin.Controls.Add(this.labelAWithWin);

this.CalculationWin.Controls.Add(this.label7);

this.CalculationWin.Controls.Add(this.label8);

this.CalculationWin.Controls.Add(this.LimitMemory);

this.CalculationWin.Font = new System.Drawing.Font("Times New Roman", 14.25F, System.Drawing.FontStyle.Regular, System.Drawing.GraphicsUnit.Point, ((byte)(204)));

this.CalculationWin.Location = new System.Drawing.Point(643, 22);

this.CalculationWin.Name = "CalculationWin";

this.CalculationWin.Size = new System.Drawing.Size(384, 308);

this.CalculationWin.TabIndex = 12;

this.CalculationWin.TabStop = false;

this.CalculationWin.Text = "Данные для подсчёта выигрыша";

this.CalculationWin.Visible = false;

//

// flagAllSolution

//

this.flagAllSolution.AutoSize = true;

this.flagAllSolution.Location = new System.Drawing.Point(15, 169);

this.flagAllSolution.Name = "flagAllSolution";

this.flagAllSolution.Size = new System.Drawing.Size(207, 25);

this.flagAllSolution.TabIndex = 21;

this.flagAllSolution.Text = "Показать все решения";

this.flagAllSolution.UseVisualStyleBackColor = true;

//

// SCompareText

//

this.SCompareText.ForeColor = System.Drawing.Color.Silver;

this.SCompareText.Location = new System.Drawing.Point(104, 55);

this.SCompareText.Name = "SCompareText";

this.SCompareText.Size = new System.Drawing.Size(143, 29);

this.SCompareText.TabIndex = 20;

this.SCompareText.Text = "10000000000000";

this.SCompareText.Enter += new System.EventHandler(this.SCompareText\_Enter);

this.SCompareText.Leave += new System.EventHandler(this.SCompareText\_Leave);

//

// SMapText

//

this.SMapText.ForeColor = System.Drawing.Color.Silver;

this.SMapText.Location = new System.Drawing.Point(79, 22);

this.SMapText.Name = "SMapText";

this.SMapText.Size = new System.Drawing.Size(117, 29);

this.SMapText.TabIndex = 19;

this.SMapText.Text = "10000000000";

this.SMapText.Enter += new System.EventHandler(this.SMapText\_Enter);

this.SMapText.Leave += new System.EventHandler(this.SMapText\_Leave);

//

// label3

//

this.label3.AutoSize = true;

this.label3.Location = new System.Drawing.Point(50, 26);

this.label3.Name = "label3";

this.label3.Size = new System.Drawing.Size(31, 21);

this.label3.TabIndex = 15;

this.label3.Text = " = ";

//

// label2

//

this.label2.AutoSize = true;

this.label2.Font = new System.Drawing.Font("Microsoft Sans Serif", 6.75F, System.Drawing.FontStyle.Bold, System.Drawing.GraphicsUnit.Point, ((byte)(204)));

this.label2.Location = new System.Drawing.Point(23, 33);

this.label2.Name = "label2";

this.label2.Size = new System.Drawing.Size(26, 12);

this.label2.TabIndex = 14;

this.label2.Text = "map";

//

// label4

//

this.label4.AutoSize = true;

this.label4.Location = new System.Drawing.Point(12, 55);

this.label4.Name = "label4";

this.label4.Size = new System.Drawing.Size(18, 21);

this.label4.TabIndex = 16;

this.label4.Text = "s";

//

// label1

//

this.label1.AutoSize = true;

this.label1.Location = new System.Drawing.Point(11, 25);

this.label1.Name = "label1";

this.label1.Size = new System.Drawing.Size(18, 21);

this.label1.TabIndex = 13;

this.label1.Text = "s";

//

// label5

//

this.label5.AutoSize = true;

this.label5.Font = new System.Drawing.Font("Microsoft Sans Serif", 6.75F, System.Drawing.FontStyle.Bold, System.Drawing.GraphicsUnit.Point, ((byte)(204)));

this.label5.Location = new System.Drawing.Point(28, 64);

this.label5.Name = "label5";

this.label5.Size = new System.Drawing.Size(48, 12);

this.label5.TabIndex = 17;

this.label5.Text = "compare";

//

// label6

//

this.label6.AutoSize = true;

this.label6.Location = new System.Drawing.Point(74, 57);

this.label6.Name = "label6";

this.label6.Size = new System.Drawing.Size(31, 21);

this.label6.TabIndex = 18;

this.label6.Text = " = ";

//

// CountIteration

//

this.CountIteration.ForeColor = System.Drawing.Color.Silver;

this.CountIteration.Location = new System.Drawing.Point(192, 120);

this.CountIteration.Name = "CountIteration";

this.CountIteration.Size = new System.Drawing.Size(93, 29);

this.CountIteration.TabIndex = 12;

this.CountIteration.Text = "10000";

this.CountIteration.Enter += new System.EventHandler(this.CountIteration\_Enter);

this.CountIteration.Leave += new System.EventHandler(this.CountIteration\_Leave);

//

// label9

//

this.label9.AutoSize = true;

this.label9.Location = new System.Drawing.Point(11, 128);

this.label9.Name = "label9";

this.label9.Size = new System.Drawing.Size(185, 21);

this.label9.TabIndex = 11;

this.label9.Text = "Число итераций(N) = ";

//

// AutoCalcWinButton

//

this.AutoCalcWinButton.Font = new System.Drawing.Font("Microsoft Sans Serif", 9F, System.Drawing.FontStyle.Bold, System.Drawing.GraphicsUnit.Point, ((byte)(204)));

this.AutoCalcWinButton.Location = new System.Drawing.Point(16, 200);

this.AutoCalcWinButton.Name = "AutoCalcWinButton";

this.AutoCalcWinButton.Size = new System.Drawing.Size(137, 46);

this.AutoCalcWinButton.TabIndex = 7;

this.AutoCalcWinButton.Text = "Автоматический расчёт";

this.AutoCalcWinButton.UseVisualStyleBackColor = true;

this.AutoCalcWinButton.Click += new System.EventHandler(this.AutoCalcWinButton\_Click);

//

// labelAWithWin

//

this.labelAWithWin.AutoSize = true;

this.labelAWithWin.Location = new System.Drawing.Point(12, 262);

this.labelAWithWin.Name = "labelAWithWin";

this.labelAWithWin.Size = new System.Drawing.Size(0, 21);

this.labelAWithWin.TabIndex = 6;

//

// label7

//

this.label7.AutoSize = true;

this.label7.Location = new System.Drawing.Point(11, 96);

this.label7.Name = "label7";

this.label7.Size = new System.Drawing.Size(44, 21);

this.label7.TabIndex = 6;

this.label7.Text = "V = ";

//

// label8

//

this.label8.AutoSize = true;

this.label8.Location = new System.Drawing.Point(162, 98);

this.label8.Name = "label8";

this.label8.Size = new System.Drawing.Size(46, 21);

this.label8.TabIndex = 8;

this.label8.Text = "байт";

//

// LimitMemory

//

this.LimitMemory.Location = new System.Drawing.Point(55, 90);

this.LimitMemory.Name = "LimitMemory";

this.LimitMemory.Size = new System.Drawing.Size(109, 29);

this.LimitMemory.TabIndex = 7;

//

// MyTable

//

this.MyTable.AllowUserToAddRows = false;

this.MyTable.AllowUserToDeleteRows = false;

this.MyTable.BackgroundColor = System.Drawing.SystemColors.Control;

this.MyTable.BorderStyle = System.Windows.Forms.BorderStyle.None;

this.MyTable.ColumnHeadersHeightSizeMode = System.Windows.Forms.DataGridViewColumnHeadersHeightSizeMode.AutoSize;

this.MyTable.Columns.AddRange(new System.Windows.Forms.DataGridViewColumn[] {

this.Column1,

this.Column2,

this.Column8,

this.Column6,

this.Column3,

this.Column5,

this.Column9,

this.Column7,

this.Column4});

this.MyTable.Location = new System.Drawing.Point(538, 344);

this.MyTable.Name = "MyTable";

this.MyTable.ScrollBars = System.Windows.Forms.ScrollBars.None;

this.MyTable.Size = new System.Drawing.Size(625, 44);

this.MyTable.TabIndex = 13;

this.MyTable.Visible = false;

this.MyTable.CurrentCellDirtyStateChanged += new System.EventHandler(this.MyTable\_CurrentCellDirtyStateChanged);

//

// Column1

//

this.Column1.FillWeight = 6.791172F;

this.Column1.HeaderText = "";

this.Column1.Name = "Column1";

this.Column1.Width = 30;

//

// Column2

//

this.Column2.FillWeight = 119.1196F;

this.Column2.HeaderText = "Итератор";

this.Column2.Name = "Column2";

this.Column2.ReadOnly = true;

this.Column2.Resizable = System.Windows.Forms.DataGridViewTriState.False;

this.Column2.Width = 70;

//

// Column8

//

this.Column8.FillWeight = 72.88135F;

this.Column8.HeaderText = "Тип данных";

this.Column8.Name = "Column8";

this.Column8.ReadOnly = true;

this.Column8.Width = 69;

//

// Column6

//

this.Column6.HeaderText = "Тип контейнера";

this.Column6.Name = "Column6";

this.Column6.ReadOnly = true;

this.Column6.Width = 70;

//

// Column3

//

this.Column3.FillWeight = 138.9695F;

this.Column3.HeaderText = "Номер строки";

this.Column3.Name = "Column3";

this.Column3.ReadOnly = true;

this.Column3.Width = 70;

//

// Column5

//

this.Column5.FillWeight = 184.1371F;

this.Column5.HeaderText = "Количество элементов";

this.Column5.Name = "Column5";

this.Column5.Width = 70;

//

// Column9

//

this.Column9.HeaderText = "P";

this.Column9.Name = "Column9";

this.Column9.ReadOnly = true;

this.Column9.Width = 50;

//

// Column7

//

this.Column7.FillWeight = 44.89193F;

this.Column7.HeaderText = "V";

this.Column7.Name = "Column7";

this.Column7.ReadOnly = true;

this.Column7.Width = 50;

//

// Column4

//

this.Column4.FillWeight = 130.235F;

this.Column4.HeaderText = "Рекомендации";

this.Column4.Name = "Column4";

this.Column4.ReadOnly = true;

//

// AllSolutionsTxtBox

//

this.AllSolutionsTxtBox.Location = new System.Drawing.Point(1061, 36);

this.AllSolutionsTxtBox.Name = "AllSolutionsTxtBox";

this.AllSolutionsTxtBox.Size = new System.Drawing.Size(264, 256);

this.AllSolutionsTxtBox.TabIndex = 14;

this.AllSolutionsTxtBox.Text = "";

this.AllSolutionsTxtBox.Visible = false;

//

// Form1

//

this.AutoScaleDimensions = new System.Drawing.SizeF(6F, 13F);

this.AutoScaleMode = System.Windows.Forms.AutoScaleMode.Font;

this.ClientSize = new System.Drawing.Size(1350, 552);

this.Controls.Add(this.AllSolutionsTxtBox);

this.Controls.Add(this.MyTable);

this.Controls.Add(this.CalculationWin);

this.Controls.Add(this.groupBox1);

this.Controls.Add(this.CodeAnalysis);

this.Controls.Add(this.ToChooseFile);

this.Controls.Add(this.statusStrip1);

this.Icon = ((System.Drawing.Icon)(resources.GetObject("$this.Icon")));

this.Name = "Form1";

this.Text = "Magisters Work Windows";

this.groupBox1.ResumeLayout(false);

this.statusStrip1.ResumeLayout(false);

this.statusStrip1.PerformLayout();

this.CalculationWin.ResumeLayout(false);

this.CalculationWin.PerformLayout();

((System.ComponentModel.ISupportInitialize)(this.MyTable)).EndInit();

this.ResumeLayout(false);

this.PerformLayout();

}

private System.Windows.Forms.GroupBox groupBox1;

private System.Windows.Forms.RichTextBox richTextBox1;

private System.Windows.Forms.Button CodeAnalysis;

private System.Windows.Forms.Button ToChooseFile;

private System.Windows.Forms.OpenFileDialog OpenFile;

private System.Windows.Forms.StatusStrip statusStrip1;

private System.Windows.Forms.ToolStripStatusLabel toolStripStatusLabel1;

private System.Windows.Forms.GroupBox CalculationWin;

private System.Windows.Forms.Label label9;

private System.Windows.Forms.Button AutoCalcWinButton;

private System.Windows.Forms.Label labelAWithWin;

private System.Windows.Forms.Label label7;

private System.Windows.Forms.Label label8;

private System.Windows.Forms.TextBox LimitMemory;

private System.Windows.Forms.TextBox CountIteration;

private System.Windows.Forms.DataGridView MyTable;

private System.Windows.Forms.DataGridViewCheckBoxColumn Column1;

private System.Windows.Forms.DataGridViewTextBoxColumn Column2;

private System.Windows.Forms.DataGridViewTextBoxColumn Column8;

private System.Windows.Forms.DataGridViewTextBoxColumn Column6;

private System.Windows.Forms.DataGridViewTextBoxColumn Column3;

private System.Windows.Forms.DataGridViewTextBoxColumn Column5;

private System.Windows.Forms.DataGridViewTextBoxColumn Column9;

private System.Windows.Forms.DataGridViewTextBoxColumn Column7;

private System.Windows.Forms.DataGridViewTextBoxColumn Column4;

private System.Windows.Forms.TextBox SCompareText;

private System.Windows.Forms.TextBox SMapText;

private System.Windows.Forms.Label label3;

private System.Windows.Forms.Label label2;

private System.Windows.Forms.Label label4;

private System.Windows.Forms.Label label1;

private System.Windows.Forms.Label label5;

private System.Windows.Forms.Label label6;

private System.Windows.Forms.RichTextBox AllSolutionsTxtBox;

private System.Windows.Forms.CheckBox flagAllSolution;

}

}