**РУСЕНСКИ УНИВЕРСИТЕТ „АНГЕЛ КЪНЧЕВ“**

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ПО

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# Задание

Да се разработи програмна система, симулираща работата на модула за **управление на виртуалната странична памет (преобразуване на виртуални адреси в реални при Random стратегия за замяна на страница)** при следните изходни данни:

* ***Основни необходими структури:***
  + PAT[1..P] таблица за изобразяване на страниците със структура:
    - Frame номер на страничен кадър от реалната памет;
  + Frames[1..M] изобразяване на реалната памет със структура:
    - Page номер на виртуална страница
* ***Основни обработки:***
  + MMU (Block, Offset) получаване на реален адрес от виртуален
  + Show показване на състоянието на основните структури

Разработеният проект да има подходящ потребителски интерфейс за обръщение към основните обработки. Обяснителната записка да съдържа заданието, описание на използваните структури данни и алгоритми и програмен листинг.

# Описание на използваните структури и алгоритми

Приема се, че ОС е 16 битова, а размера на една страница в паметта е 512 B (т.е 9 бита за offset - 16 - 9 = 7) и във виртуалната памет има : 2 ^ 7 = 128 блока, т.е. може да имаме 128 адреса.

* private Frame[] VPT; - виртуална памет
* private List<Page> memory – реалната памет;
* private string memorySize – размер на паметта (може да е 32 КB или макс. 64 KB т.к ОС е 16 b)
* cons tint VPTSize = 128; - брой блокове на виртуалната памет

# Код на програмата (листинг)

* Program.cs

using System;

using System.Collections.Generic;

using System.Linq;

using System.Threading.Tasks;

using System.Windows.Forms;

namespace OS\_AddressTranslation

{

static class Program

{

/// <summary>

/// The main entry point for the application.

/// </summary>

[STAThread]

static void Main()

{

Application.EnableVisualStyles();

Application.SetCompatibleTextRenderingDefault(false);

Application.Run(new FormMain());

}

}

}

* Page.cs

namespace OS\_AddressTranslation

{

using System;

using System.Text;

public class Page

{

private StringBuilder info;

private static Random rand = new Random();

public string Info

{

get

{

return info.ToString();

}

}

public Page()

{

info = new StringBuilder();

// 512 байта е големината на една страница

for (int i = 0; i < 512; i++)

{

info.Append((char)rand.Next(33, 127));

}

}

}

}

* Frame.cs

namespace OS\_AddressTranslation

{

using System;

using System.Text;

public class Page

{

private StringBuilder info;

private static Random rand = new Random();

public string Info

{

get

{

return info.ToString();

}

}

public Page()

{

info = new StringBuilder();

// 512 байта е големината на една страница

for (int i = 0; i < 512; i++)

{

info.Append((char)rand.Next(33, 127));

}

}

}

}

* FormMain.cs

namespace OS\_AddressTranslation

{

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

using System.Windows.Forms;

public partial class FormMain : Form

{

/\*

приемаме, че ОС е 16 битова, а размера на една страница

в паметта е 512 B (т.е 9 бита за offset).

16 - 9 = 7

2 ^ 7 = 128 т.е може да имаме 128 адреса в PAT таблицата

\*/

const int VPTSize = 128;

private Frame[] VPT;

private List<Page> memory;

private string memorySize;

public FormMain()

{

InitializeComponent();

VPT = new Frame[VPTSize];

//MessageBox.Show(Math.Ceiling(Math.Log(65536, 2)).ToString());

}

private void buttonConfirm\_Click(object sender, EventArgs e)

{

if (radioButton32.Checked)

{

memorySize = radioButton32.Text;

memory = new List<Page>(15); // 32 = 2 ^ 15;

}

else if (radioButton64.Checked)

{

memorySize = radioButton64.Text;

memory = new List<Page>(16); // 64 = 2 ^ 16;

}

for (int i = 0; i < memory.Capacity; i++)

{

memory.Add(new Page());

}

Random rnd = new Random();

var numbers = Enumerable.Range(0, memory.Capacity).OrderBy(x => rnd.Next()).Take(memory.Capacity).ToList();

int indC = 0;

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

{

if (indC < numbers.Count)

{

VPT[i] = new Frame(numbers[indC++]);

}

else

{

VPT[i] = new Frame(null);

}

}

numericUpDownBlock.Maximum = VPT.Length - 1;

numericUpDownOffset.Maximum = (int)Math.Pow(2, 9) - 1;

toolStripStatusLabelRAM.Text += (" " + memorySize);

panelTop.Enabled = false;

panel1.Enabled = true;

BindingSource bsp = new BindingSource();

bsp.DataSource = memory;

dataGridViewPages.DataSource = bsp;

BindingSource bsv = new BindingSource();

bsv.DataSource = VPT;

dataGridViewVPT.DataSource = bsv;

dataGridViewPages.Rows[0].Selected = false;

dataGridViewVPT.Rows[0].Selected = false;

}

private void dataGridViewVPT\_RowPostPaint(object sender, DataGridViewRowPostPaintEventArgs e)

{

var grid = sender as DataGridView;

var rowIdx = (e.RowIndex).ToString();

var centerFormat = new StringFormat()

{

Alignment = StringAlignment.Center,

LineAlignment = StringAlignment.Center

};

var headerBounds = new Rectangle(e.RowBounds.Left, e.RowBounds.Top, grid.RowHeadersWidth, e.RowBounds.Height);

e.Graphics.DrawString(rowIdx, this.Font, SystemBrushes.ControlText, headerBounds, centerFormat);

}

private void buttonMMU\_Click(object sender, EventArgs e)

{

for (int i = 0; i < dataGridViewPages.Rows.Count; i++)

{

dataGridViewPages.Rows[i].Selected = false;

}

for (int i = 0; i < dataGridViewVPT.Rows.Count; i++)

{

dataGridViewVPT.Rows[i].Selected = false;

}

Frame frm = VPT[(int)numericUpDownBlock.Value];

if (frm.Page != null)

{

labelResultR.Text = "Страничен кадър " +

memory[(int)frm.Page].Info[(int)numericUpDownOffset.Value] +

" на страница " + frm.Page;

dataGridViewPages.Rows[(int)frm.Page].Selected = true;

dataGridViewVPT.Rows[(int)numericUpDownBlock.Value].Selected = true;

}

else

{

labelResultR.Text = "~";

MessageBox.Show("Няма записана информация на този адрес от виртуалната памет!");

}

}

}

}

* FormMain.Designer.cs

namespace OS\_AddressTranslation

{

partial class FormMain

{

/// <summary>

/// Required designer variable.

/// </summary>

private System.ComponentModel.IContainer components = null;

/// <summary>

/// Clean up any resources being used.

/// </summary>

/// <param name="disposing">true if managed resources should be disposed; otherwise, false.</param>

protected override void Dispose(bool disposing)

{

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

{

components.Dispose();

}

base.Dispose(disposing);

}

#region Windows Form Designer generated code

/// <summary>

/// Required method for Designer support - do not modify

/// the contents of this method with the code editor.

/// </summary>

private void InitializeComponent()

{

this.tableLayoutPanel1 = new System.Windows.Forms.TableLayoutPanel();

this.panelTop = new System.Windows.Forms.Panel();

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

this.radioButton64 = new System.Windows.Forms.RadioButton();

this.radioButton32 = new System.Windows.Forms.RadioButton();

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

this.tableLayoutPanel2 = new System.Windows.Forms.TableLayoutPanel();

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

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

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

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

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

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

this.tableLayoutPanel3 = new System.Windows.Forms.TableLayoutPanel();

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

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

this.panel1 = new System.Windows.Forms.Panel();

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

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

this.numericUpDownBlock = new System.Windows.Forms.NumericUpDown();

this.numericUpDownOffset = new System.Windows.Forms.NumericUpDown();

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

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

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

this.tableLayoutPanel1.SuspendLayout();

this.panelTop.SuspendLayout();

this.tableLayoutPanel2.SuspendLayout();

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

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

this.statusStrip1.SuspendLayout();

this.tableLayoutPanel3.SuspendLayout();

this.panel1.SuspendLayout();

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

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

this.SuspendLayout();

//

// tableLayoutPanel1

//

this.tableLayoutPanel1.ColumnCount = 1;

this.tableLayoutPanel1.ColumnStyles.Add(new System.Windows.Forms.ColumnStyle(System.Windows.Forms.SizeType.Percent, 100F));

this.tableLayoutPanel1.Controls.Add(this.panelTop, 0, 0);

this.tableLayoutPanel1.Controls.Add(this.tableLayoutPanel2, 0, 2);

this.tableLayoutPanel1.Controls.Add(this.tableLayoutPanel3, 0, 1);

this.tableLayoutPanel1.Dock = System.Windows.Forms.DockStyle.Fill;

this.tableLayoutPanel1.Location = new System.Drawing.Point(0, 0);

this.tableLayoutPanel1.Margin = new System.Windows.Forms.Padding(0);

this.tableLayoutPanel1.Name = "tableLayoutPanel1";

this.tableLayoutPanel1.RowCount = 3;

this.tableLayoutPanel1.RowStyles.Add(new System.Windows.Forms.RowStyle(System.Windows.Forms.SizeType.Absolute, 50F));

this.tableLayoutPanel1.RowStyles.Add(new System.Windows.Forms.RowStyle(System.Windows.Forms.SizeType.Absolute, 20F));

this.tableLayoutPanel1.RowStyles.Add(new System.Windows.Forms.RowStyle());

this.tableLayoutPanel1.Size = new System.Drawing.Size(813, 489);

this.tableLayoutPanel1.TabIndex = 0;

//

// panelTop

//

this.panelTop.Controls.Add(this.buttonConfirm);

this.panelTop.Controls.Add(this.radioButton64);

this.panelTop.Controls.Add(this.radioButton32);

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

this.panelTop.Dock = System.Windows.Forms.DockStyle.Fill;

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

this.panelTop.Margin = new System.Windows.Forms.Padding(0);

this.panelTop.Name = "panelTop";

this.panelTop.Size = new System.Drawing.Size(813, 50);

this.panelTop.TabIndex = 0;

//

// buttonConfirm

//

this.buttonConfirm.Location = new System.Drawing.Point(310, 16);

this.buttonConfirm.Name = "buttonConfirm";

this.buttonConfirm.Size = new System.Drawing.Size(75, 23);

this.buttonConfirm.TabIndex = 5;

this.buttonConfirm.Text = "Потвърди";

this.buttonConfirm.UseVisualStyleBackColor = true;

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

//

// radioButton64

//

this.radioButton64.AutoSize = true;

this.radioButton64.Location = new System.Drawing.Point(250, 21);

this.radioButton64.Name = "radioButton64";

this.radioButton64.Size = new System.Drawing.Size(54, 17);

this.radioButton64.TabIndex = 2;

this.radioButton64.TabStop = true;

this.radioButton64.Text = "64 KB";

this.radioButton64.UseVisualStyleBackColor = true;

//

// radioButton32

//

this.radioButton32.AutoSize = true;

this.radioButton32.Location = new System.Drawing.Point(190, 21);

this.radioButton32.Name = "radioButton32";

this.radioButton32.Size = new System.Drawing.Size(54, 17);

this.radioButton32.TabIndex = 1;

this.radioButton32.TabStop = true;

this.radioButton32.Text = "32 KB";

this.radioButton32.UseVisualStyleBackColor = true;

//

// label1

//

this.label1.AutoSize = true;

this.label1.Location = new System.Drawing.Point(12, 21);

this.label1.Name = "label1";

this.label1.Size = new System.Drawing.Size(171, 13);

this.label1.TabIndex = 0;

this.label1.Text = "Размерната на реалната памет:";

//

// tableLayoutPanel2

//

this.tableLayoutPanel2.CellBorderStyle = System.Windows.Forms.TableLayoutPanelCellBorderStyle.Single;

this.tableLayoutPanel2.ColumnCount = 3;

this.tableLayoutPanel2.ColumnStyles.Add(new System.Windows.Forms.ColumnStyle(System.Windows.Forms.SizeType.Percent, 25F));

this.tableLayoutPanel2.ColumnStyles.Add(new System.Windows.Forms.ColumnStyle(System.Windows.Forms.SizeType.Percent, 50F));

this.tableLayoutPanel2.ColumnStyles.Add(new System.Windows.Forms.ColumnStyle(System.Windows.Forms.SizeType.Percent, 25F));

this.tableLayoutPanel2.Controls.Add(this.dataGridViewPages, 2, 0);

this.tableLayoutPanel2.Controls.Add(this.dataGridViewVPT, 0, 0);

this.tableLayoutPanel2.Controls.Add(this.panel1, 1, 0);

this.tableLayoutPanel2.Dock = System.Windows.Forms.DockStyle.Fill;

this.tableLayoutPanel2.Location = new System.Drawing.Point(0, 70);

this.tableLayoutPanel2.Margin = new System.Windows.Forms.Padding(0);

this.tableLayoutPanel2.Name = "tableLayoutPanel2";

this.tableLayoutPanel2.RowCount = 1;

this.tableLayoutPanel2.RowStyles.Add(new System.Windows.Forms.RowStyle(System.Windows.Forms.SizeType.Percent, 100F));

this.tableLayoutPanel2.Size = new System.Drawing.Size(813, 419);

this.tableLayoutPanel2.TabIndex = 1;

//

// dataGridViewPages

//

this.dataGridViewPages.AllowUserToAddRows = false;

this.dataGridViewPages.AllowUserToDeleteRows = false;

this.dataGridViewPages.AutoSizeColumnsMode = System.Windows.Forms.DataGridViewAutoSizeColumnsMode.Fill;

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

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

this.dataGridViewPages.Dock = System.Windows.Forms.DockStyle.Fill;

this.dataGridViewPages.Location = new System.Drawing.Point(609, 1);

this.dataGridViewPages.Margin = new System.Windows.Forms.Padding(0, 0, 0, 24);

this.dataGridViewPages.Name = "dataGridViewPages";

this.dataGridViewPages.ReadOnly = true;

this.dataGridViewPages.SelectionMode = System.Windows.Forms.DataGridViewSelectionMode.FullRowSelect;

this.dataGridViewPages.Size = new System.Drawing.Size(203, 393);

this.dataGridViewPages.TabIndex = 1;

this.dataGridViewPages.RowPostPaint += new System.Windows.Forms.DataGridViewRowPostPaintEventHandler(this.dataGridViewVPT\_RowPostPaint);

//

// dataGridViewVPT

//

this.dataGridViewVPT.AllowUserToAddRows = false;

this.dataGridViewVPT.AllowUserToDeleteRows = false;

this.dataGridViewVPT.AutoSizeColumnsMode = System.Windows.Forms.DataGridViewAutoSizeColumnsMode.Fill;

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

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

this.dataGridViewVPT.Dock = System.Windows.Forms.DockStyle.Fill;

this.dataGridViewVPT.Location = new System.Drawing.Point(1, 1);

this.dataGridViewVPT.Margin = new System.Windows.Forms.Padding(0, 0, 0, 24);

this.dataGridViewVPT.Name = "dataGridViewVPT";

this.dataGridViewVPT.ReadOnly = true;

this.dataGridViewVPT.SelectionMode = System.Windows.Forms.DataGridViewSelectionMode.FullRowSelect;

this.dataGridViewVPT.Size = new System.Drawing.Size(202, 393);

this.dataGridViewVPT.TabIndex = 0;

this.dataGridViewVPT.RowPostPaint += new System.Windows.Forms.DataGridViewRowPostPaintEventHandler(this.dataGridViewVPT\_RowPostPaint);

//

// statusStrip1

//

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

this.toolStripStatusLabelRAM,

this.toolStripStatusLabelOS,

this.toolStripStatusLabelPageSize});

this.statusStrip1.Location = new System.Drawing.Point(0, 465);

this.statusStrip1.Name = "statusStrip1";

this.statusStrip1.Size = new System.Drawing.Size(813, 24);

this.statusStrip1.TabIndex = 1;

this.statusStrip1.Text = "statusStrip1";

//

// toolStripStatusLabelRAM

//

this.toolStripStatusLabelRAM.BorderSides = System.Windows.Forms.ToolStripStatusLabelBorderSides.Right;

this.toolStripStatusLabelRAM.Name = "toolStripStatusLabelRAM";

this.toolStripStatusLabelRAM.Size = new System.Drawing.Size(109, 19);

this.toolStripStatusLabelRAM.Text = "Физическа памет:";

//

// toolStripStatusLabelOS

//

this.toolStripStatusLabelOS.BorderSides = System.Windows.Forms.ToolStripStatusLabelBorderSides.Right;

this.toolStripStatusLabelOS.Name = "toolStripStatusLabelOS";

this.toolStripStatusLabelOS.Size = new System.Drawing.Size(68, 19);

this.toolStripStatusLabelOS.Text = "ОС: 16 bits";

//

// toolStripStatusLabelPageSize

//

this.toolStripStatusLabelPageSize.Name = "toolStripStatusLabelPageSize";

this.toolStripStatusLabelPageSize.Size = new System.Drawing.Size(151, 19);

this.toolStripStatusLabelPageSize.Text = "Размер на страница: 512 B";

//

// tableLayoutPanel3

//

this.tableLayoutPanel3.ColumnCount = 3;

this.tableLayoutPanel3.ColumnStyles.Add(new System.Windows.Forms.ColumnStyle(System.Windows.Forms.SizeType.Percent, 25F));

this.tableLayoutPanel3.ColumnStyles.Add(new System.Windows.Forms.ColumnStyle(System.Windows.Forms.SizeType.Percent, 50F));

this.tableLayoutPanel3.ColumnStyles.Add(new System.Windows.Forms.ColumnStyle(System.Windows.Forms.SizeType.Percent, 25F));

this.tableLayoutPanel3.Controls.Add(this.label3, 2, 0);

this.tableLayoutPanel3.Controls.Add(this.label2, 0, 0);

this.tableLayoutPanel3.Dock = System.Windows.Forms.DockStyle.Fill;

this.tableLayoutPanel3.Location = new System.Drawing.Point(0, 50);

this.tableLayoutPanel3.Margin = new System.Windows.Forms.Padding(0);

this.tableLayoutPanel3.Name = "tableLayoutPanel3";

this.tableLayoutPanel3.RowCount = 1;

this.tableLayoutPanel3.RowStyles.Add(new System.Windows.Forms.RowStyle(System.Windows.Forms.SizeType.Percent, 100F));

this.tableLayoutPanel3.RowStyles.Add(new System.Windows.Forms.RowStyle(System.Windows.Forms.SizeType.Absolute, 20F));

this.tableLayoutPanel3.Size = new System.Drawing.Size(813, 20);

this.tableLayoutPanel3.TabIndex = 2;

//

// label2

//

this.label2.Anchor = ((System.Windows.Forms.AnchorStyles)((System.Windows.Forms.AnchorStyles.Left | System.Windows.Forms.AnchorStyles.Right)));

this.label2.AutoSize = true;

this.label2.Location = new System.Drawing.Point(3, 3);

this.label2.Name = "label2";

this.label2.Size = new System.Drawing.Size(197, 13);

this.label2.TabIndex = 0;

this.label2.Text = "Виртуална странична памет";

this.label2.TextAlign = System.Drawing.ContentAlignment.MiddleCenter;

//

// label3

//

this.label3.Anchor = ((System.Windows.Forms.AnchorStyles)((System.Windows.Forms.AnchorStyles.Left | System.Windows.Forms.AnchorStyles.Right)));

this.label3.AutoSize = true;

this.label3.Location = new System.Drawing.Point(612, 3);

this.label3.Name = "label3";

this.label3.Size = new System.Drawing.Size(198, 13);

this.label3.TabIndex = 1;

this.label3.Text = "Физическа памет";

this.label3.TextAlign = System.Drawing.ContentAlignment.MiddleCenter;

//

// panel1

//

this.panel1.Controls.Add(this.labelResultR);

this.panel1.Controls.Add(this.labelResult);

this.panel1.Controls.Add(this.buttonMMU);

this.panel1.Controls.Add(this.numericUpDownOffset);

this.panel1.Controls.Add(this.numericUpDownBlock);

this.panel1.Controls.Add(this.label5);

this.panel1.Controls.Add(this.label4);

this.panel1.Dock = System.Windows.Forms.DockStyle.Fill;

this.panel1.Enabled = false;

this.panel1.Location = new System.Drawing.Point(207, 4);

this.panel1.Name = "panel1";

this.panel1.Size = new System.Drawing.Size(398, 411);

this.panel1.TabIndex = 2;

//

// label4

//

this.label4.AutoSize = true;

this.label4.Location = new System.Drawing.Point(15, 25);

this.label4.Name = "label4";

this.label4.Size = new System.Drawing.Size(92, 13);

this.label4.TabIndex = 0;

this.label4.Text = "Номер на блока:";

//

// label5

//

this.label5.AutoSize = true;

this.label5.Location = new System.Drawing.Point(15, 84);

this.label5.Name = "label5";

this.label5.Size = new System.Drawing.Size(43, 13);

this.label5.TabIndex = 1;

this.label5.Text = "Офсет:";

//

// numericUpDownBlock

//

this.numericUpDownBlock.Location = new System.Drawing.Point(18, 41);

this.numericUpDownBlock.Name = "numericUpDownBlock";

this.numericUpDownBlock.Size = new System.Drawing.Size(120, 20);

this.numericUpDownBlock.TabIndex = 2;

//

// numericUpDownOffset

//

this.numericUpDownOffset.Location = new System.Drawing.Point(18, 100);

this.numericUpDownOffset.Name = "numericUpDownOffset";

this.numericUpDownOffset.Size = new System.Drawing.Size(120, 20);

this.numericUpDownOffset.TabIndex = 3;

//

// buttonMMU

//

this.buttonMMU.Location = new System.Drawing.Point(18, 144);

this.buttonMMU.Name = "buttonMMU";

this.buttonMMU.Size = new System.Drawing.Size(75, 23);

this.buttonMMU.TabIndex = 4;

this.buttonMMU.Text = "MMU";

this.buttonMMU.UseVisualStyleBackColor = true;

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

//

// labelResult

//

this.labelResult.AutoSize = true;

this.labelResult.Location = new System.Drawing.Point(15, 205);

this.labelResult.Name = "labelResult";

this.labelResult.Size = new System.Drawing.Size(56, 13);

this.labelResult.TabIndex = 5;

this.labelResult.Text = "Резултат:";

//

// labelResultR

//

this.labelResultR.AutoSize = true;

this.labelResultR.Location = new System.Drawing.Point(78, 204);

this.labelResultR.Name = "labelResultR";

this.labelResultR.Size = new System.Drawing.Size(14, 13);

this.labelResultR.TabIndex = 6;

this.labelResultR.Text = "~";

//

// FormMain

//

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

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

this.ClientSize = new System.Drawing.Size(813, 489);

this.Controls.Add(this.statusStrip1);

this.Controls.Add(this.tableLayoutPanel1);

this.Name = "FormMain";

this.Text = "Преобразуване на виртуални адреси в реални";

this.tableLayoutPanel1.ResumeLayout(false);

this.panelTop.ResumeLayout(false);

this.panelTop.PerformLayout();

this.tableLayoutPanel2.ResumeLayout(false);

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

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

this.statusStrip1.ResumeLayout(false);

this.statusStrip1.PerformLayout();

this.tableLayoutPanel3.ResumeLayout(false);

this.tableLayoutPanel3.PerformLayout();

this.panel1.ResumeLayout(false);

this.panel1.PerformLayout();

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

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

this.ResumeLayout(false);

this.PerformLayout();

}

#endregion

private System.Windows.Forms.TableLayoutPanel tableLayoutPanel1;

private System.Windows.Forms.Panel panelTop;

private System.Windows.Forms.Button buttonConfirm;

private System.Windows.Forms.RadioButton radioButton64;

private System.Windows.Forms.RadioButton radioButton32;

private System.Windows.Forms.Label label1;

private System.Windows.Forms.StatusStrip statusStrip1;

private System.Windows.Forms.ToolStripStatusLabel toolStripStatusLabelRAM;

private System.Windows.Forms.ToolStripStatusLabel toolStripStatusLabelOS;

private System.Windows.Forms.ToolStripStatusLabel toolStripStatusLabelPageSize;

private System.Windows.Forms.TableLayoutPanel tableLayoutPanel2;

private System.Windows.Forms.DataGridView dataGridViewVPT;

private System.Windows.Forms.DataGridView dataGridViewPages;

private System.Windows.Forms.TableLayoutPanel tableLayoutPanel3;

private System.Windows.Forms.Label label3;

private System.Windows.Forms.Label label2;

private System.Windows.Forms.Panel panel1;

private System.Windows.Forms.NumericUpDown numericUpDownOffset;

private System.Windows.Forms.NumericUpDown numericUpDownBlock;

private System.Windows.Forms.Label label5;

private System.Windows.Forms.Label label4;

private System.Windows.Forms.Button buttonMMU;

private System.Windows.Forms.Label labelResult;

private System.Windows.Forms.Label labelResultR;

}

}

# Демо

