Министерство образования и молодежной политики Свердловской области

ГАПОУ СО «Екатеринбургский колледж транспортного строительства»

Отчет по ТРПО. Лабораторная работа №10  
**«Использование фигур в WPF-приложениях».**

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Группа: ПР-31

Преподаватель: Бушуева Е.В.

2024

Разметка (задание 1):

<Window x:Class="Graphs.MainWindow"

xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"

xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"

xmlns:d="http://schemas.microsoft.com/expression/blend/2008"

xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"

xmlns:local="clr-namespace:Graphs"

WindowStartupLocation="CenterScreen"

mc:Ignorable="d"

Title="Graphs" Height="450" Width="800">

<Grid>

<Grid.ColumnDefinitions>

<ColumnDefinition />

<ColumnDefinition />

<ColumnDefinition />

</Grid.ColumnDefinitions>

<Viewbox Grid.Column="0">

<Canvas Margin="10" Width="310" Height="310">

<Line Stroke="Black" StrokeThickness="5" X1="0" Y1="0" X2="0" Y2="300" />

<Line Stroke="Black" StrokeThickness="5" X1="0" Y1="300" X2="300" Y2="300" />

<Polyline Stroke="DarkBlue" StrokeThickness="3" Points="10, 250 20, 100 50, 250 100, 50 200, 100 300, 100"/>

<Ellipse Width="50" Height="30" Fill="Red" Canvas.Top="40" Canvas.Left="75" Opacity="0.4" />

</Canvas>

</Viewbox>

<Viewbox Grid.Column="1">

<Canvas Margin="10" Width="310" Height="310">

<Line Stroke="Black" StrokeThickness="5" X1="0" Y1="0" X2="0" Y2="300" />

<Line Stroke="Black" StrokeThickness="5" X1="0" Y1="300" X2="300" Y2="300" />

<Polyline Stroke="DarkBlue" StrokeThickness="3" Points="10, 250 20, 100 50, 250 100, 50 200, 100 300, 100"/>

<Ellipse Width="50" Height="30" Fill="Red" Canvas.Top="40" Canvas.Left="75" Opacity="0.4" />

</Canvas>

</Viewbox>

<Viewbox Grid.Column="2">

<Canvas Margin="10" Width="310" Height="310">

<Line Stroke="Black" StrokeThickness="5" X1="0" Y1="0" X2="0" Y2="300" />

<Line Stroke="Black" StrokeThickness="5" X1="0" Y1="300" X2="300" Y2="300" />

<Polyline Stroke="DarkBlue" StrokeThickness="3" Points="10, 250 20, 100 50, 250 100, 50 200, 100 300, 100"/>

<Ellipse Width="50" Height="30" Fill="Red" Canvas.Top="40" Canvas.Left="75" Opacity="0.4" />

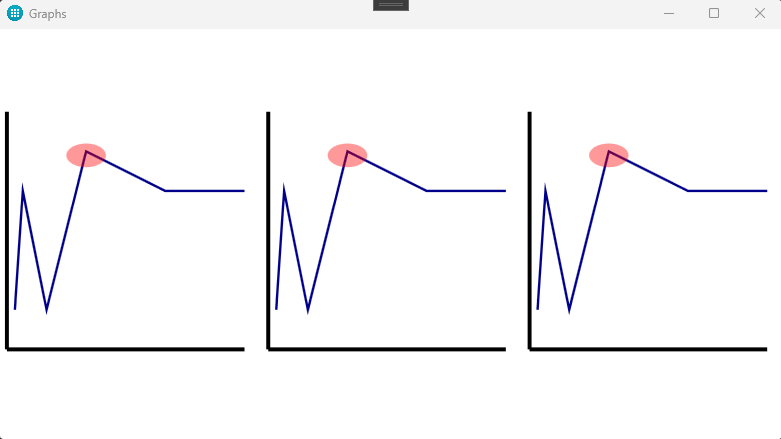
</Canvas>

</Viewbox>

</Grid>

</Window>

Снимок экрана (задание 1):



Разметка (задание 2):

<Window x:Class="Switches.MainWindow"

xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"

xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"

xmlns:d="http://schemas.microsoft.com/expression/blend/2008"

xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"

xmlns:local="clr-namespace:Switches"

WindowStartupLocation="CenterScreen"

mc:Ignorable="d"

Title="Switches" Height="450" Width="800">

<Grid>

<Grid.ColumnDefinitions>

<ColumnDefinition />

<ColumnDefinition />

<ColumnDefinition />

</Grid.ColumnDefinitions>

<Viewbox Grid.Column="0">

<local:UserControl1 />

</Viewbox>

<Viewbox Grid.Column="1">

<local:UserControl1 />

</Viewbox>

<Viewbox Grid.Column="2">

<local:UserControl1 />

</Viewbox>

</Grid>

</Window>

<UserControl x:Class="Switches.UserControl1"

xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"

xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"

xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"

xmlns:d="http://schemas.microsoft.com/expression/blend/2008"

mc:Ignorable="d"

d:DesignHeight="450" d:DesignWidth="800">

<Canvas Margin="10" Width="310" Height="310">

<Polygon Stroke="Gray" StrokeThickness="3" Points="50,180 50,110 115,70 180,110 180,180 115,215" Canvas.Left="40" Canvas.Top="10" >

<Polygon.Fill>

<RadialGradientBrush>

<GradientStop Color="LightGray" Offset="0.2" />

<GradientStop Color="White" Offset="0.2" />

<GradientStop Color="LightGray" Offset="1" />

</RadialGradientBrush>

</Polygon.Fill>

<Polygon.Triggers>

<EventTrigger RoutedEvent="MouseEnter">

<BeginStoryboard>

<Storyboard>

<DoubleAnimation Storyboard.TargetName="CanvasScale\_1" Storyboard.TargetProperty="ScaleX" To="1.5" Duration="0:0:2" />

<DoubleAnimation Storyboard.TargetName="CanvasScale\_1" Storyboard.TargetProperty="ScaleY" To="1.5" Duration="0:0:2" />

</Storyboard>

</BeginStoryboard>

</EventTrigger>

<EventTrigger RoutedEvent="MouseLeave">

<BeginStoryboard>

<Storyboard>

<DoubleAnimation Storyboard.TargetName="CanvasScale\_1" Storyboard.TargetProperty="ScaleX" To="1" Duration="0:0:2" />

<DoubleAnimation Storyboard.TargetName="CanvasScale\_1" Storyboard.TargetProperty="ScaleY" To="1" Duration="0:0:2" />

</Storyboard>

</BeginStoryboard>

</EventTrigger>

<EventTrigger RoutedEvent="MouseLeftButtonUp">

<EventTrigger.Actions>

<BeginStoryboard>

<Storyboard>

<DoubleAnimation Storyboard.TargetName="Rotate\_1" Storyboard.TargetProperty="Angle" By="20" Duration="0:0:2" />

</Storyboard>

</BeginStoryboard>

</EventTrigger.Actions>

</EventTrigger>

</Polygon.Triggers>

<Polygon.RenderTransform>

<ScaleTransform x:Name="ScalePolygon\_1" ScaleX="1" ScaleY="1"/>

</Polygon.RenderTransform>

</Polygon>

<Ellipse Width="90" Height="90" Canvas.Left="110" Canvas.Top="110" >

<Ellipse.Fill>

<RadialGradientBrush>

<GradientStop Color="Gray" Offset="0.1" />

<GradientStop Color="Gray" Offset="0.2" />

<GradientStop Color="Gray" Offset="0.3" />

<GradientStop Color="Gray" Offset="0.4" />

<GradientStop Color="DimGray" Offset="0.5" />

<GradientStop Color="LightGray" Offset="0.6" />

<GradientStop Color="LightGray" Offset="0.7" />

<GradientStop Color="LightGray" Offset="0.8" />

<GradientStop Color="LightGray" Offset="0.9" />

<GradientStop Color="White" Offset="1" />

</RadialGradientBrush>

</Ellipse.Fill>

<Ellipse.Triggers>

<EventTrigger RoutedEvent="MouseEnter">

<BeginStoryboard>

<Storyboard>

<DoubleAnimation Storyboard.TargetName="CanvasScale\_1" Storyboard.TargetProperty="ScaleX" To="1.5" Duration="0:0:2" />

<DoubleAnimation Storyboard.TargetName="CanvasScale\_1" Storyboard.TargetProperty="ScaleY" To="1.5" Duration="0:0:2" />

</Storyboard>

</BeginStoryboard>

</EventTrigger>

<EventTrigger RoutedEvent="MouseLeave">

<BeginStoryboard>

<Storyboard>

<DoubleAnimation Storyboard.TargetName="CanvasScale\_1" Storyboard.TargetProperty="ScaleX" To="1" Duration="0:0:2" />

<DoubleAnimation Storyboard.TargetName="CanvasScale\_1" Storyboard.TargetProperty="ScaleY" To="1" Duration="0:0:2" />

</Storyboard>

</BeginStoryboard>

</EventTrigger>

<EventTrigger RoutedEvent="MouseLeftButtonUp">

<EventTrigger.Actions>

<BeginStoryboard>

<Storyboard>

<DoubleAnimation Storyboard.TargetName="Rotate\_1" Storyboard.TargetProperty="Angle" By="20" Duration="0:0:2" />

</Storyboard>

</BeginStoryboard>

</EventTrigger.Actions>

</EventTrigger>

</Ellipse.Triggers>

</Ellipse>

<Rectangle x:Name="Rectangle\_1\_1" Fill="LightGreen" Width="100" Height="30" Canvas.Left="105" Canvas.Top="140" Stroke="Gray" StrokeThickness="2" >

<Rectangle.Triggers>

<EventTrigger RoutedEvent="MouseEnter">

<BeginStoryboard>

<Storyboard>

<DoubleAnimation Storyboard.TargetName="CanvasScale\_1" Storyboard.TargetProperty="ScaleX" To="1.5" Duration="0:0:1" />

<DoubleAnimation Storyboard.TargetName="CanvasScale\_1" Storyboard.TargetProperty="ScaleY" To="1.5" Duration="0:0:1" />

</Storyboard>

</BeginStoryboard>

</EventTrigger>

<EventTrigger RoutedEvent="MouseLeave">

<BeginStoryboard>

<Storyboard>

<DoubleAnimation Storyboard.TargetName="CanvasScale\_1" Storyboard.TargetProperty="ScaleX" To="1" Duration="0:0:1" />

<DoubleAnimation Storyboard.TargetName="CanvasScale\_1" Storyboard.TargetProperty="ScaleY" To="1" Duration="0:0:1" />

</Storyboard>

</BeginStoryboard>

</EventTrigger>

<EventTrigger RoutedEvent="MouseLeftButtonUp">

<EventTrigger.Actions>

<BeginStoryboard>

<Storyboard>

<DoubleAnimation Storyboard.TargetName="Rotate\_1" Storyboard.TargetProperty="Angle" By="20" Duration="0:0:1" />

</Storyboard>

</BeginStoryboard>

</EventTrigger.Actions>

</EventTrigger>

</Rectangle.Triggers>

</Rectangle>

<Rectangle x:Name="Rectangle\_1\_2" Fill="Red" Width="25" Height="5" Canvas.Left="106" Canvas.Top="153" >

<Rectangle.Triggers>

<EventTrigger RoutedEvent="MouseEnter">

<BeginStoryboard>

<Storyboard>

<DoubleAnimation Storyboard.TargetName="CanvasScale\_1" Storyboard.TargetProperty="ScaleX" To="1.5" Duration="0:0:2" />

<DoubleAnimation Storyboard.TargetName="CanvasScale\_1" Storyboard.TargetProperty="ScaleY" To="1.5" Duration="0:0:2" />

</Storyboard>

</BeginStoryboard>

</EventTrigger>

<EventTrigger RoutedEvent="MouseLeave">

<BeginStoryboard>

<Storyboard>

<DoubleAnimation Storyboard.TargetName="CanvasScale\_1" Storyboard.TargetProperty="ScaleX" To="1" Duration="0:0:2" />

<DoubleAnimation Storyboard.TargetName="CanvasScale\_1" Storyboard.TargetProperty="ScaleY" To="1" Duration="0:0:2" />

</Storyboard>

</BeginStoryboard>

</EventTrigger>

<EventTrigger RoutedEvent="MouseLeftButtonUp">

<EventTrigger.Actions>

<BeginStoryboard>

<Storyboard>

<DoubleAnimation Storyboard.TargetName="Rotate\_1" Storyboard.TargetProperty="Angle" By="20" Duration="0:0:2" />

</Storyboard>

</BeginStoryboard>

</EventTrigger.Actions>

</EventTrigger>

</Rectangle.Triggers>

</Rectangle>

<Canvas.RenderTransform>

<TransformGroup>

<ScaleTransform x:Name="CanvasScale\_1" CenterX="150" CenterY="150"/>

<RotateTransform x:Name="Rotate\_1" CenterX="150" CenterY="150"/>

</TransformGroup>

</Canvas.RenderTransform>

</Canvas>

</UserControl>

Снимок экрана (задание 2):



