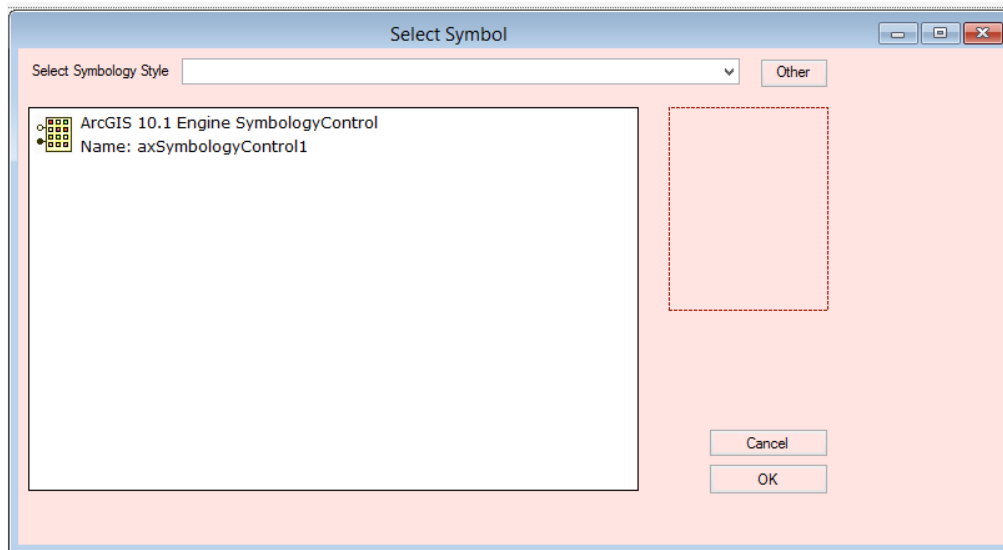Chapter 7 Symbols

1. Add a Windows Form "GetSymbol" to the project:

GUI implementation detail could be found at "GetSymbol.Designer.cs" file.

2. Implementation of GetSymbol:

- Construction method:

```
esriSymbologyStyleClass styleClass;
public GetSymbol(esriSymbologyStyleClass symStyleClass)
{
    InitializeComponent();
    styleClass = symStyleClass;
}
```

- Add Items method:

```
private void cbxStylesAddItems(string[] files)
{
    if (files.GetLength(0) == 0) return;
    foreach (string file in files)
    {
        cbxStyles.Items.Add(file);
    }
}
string stylesPath = string.Empty;
private void cbxStylesAddItems(string path)
{
    string []serverstyleFiles=System.IO.Directory.GetFiles(stylesPath,
        "*.serverstyle", SearchOption.AllDirectories);
    string[] styleFiles = System.IO.Directory.GetFiles(stylesPath, |
        "*.style", SearchOption.AllDirectories);
    cbxStylesAddItems(serverstyleFiles);
    cbxStylesAddItems(styleFiles);
}
```

- LoadStyle:

```csharp
private void LoadStyles()
{
    string sInstall = ESRI.ArcGIS.RuntimeManager.ActiveRuntime.Path;
    string defaultStyle=System.IO.Path.Combine(sInstall,"Styles\\ESRI.ServerStyle");
    if (System.IO.File.Exists(defaultStyle))
    {
        axSymbologyControl1.LoadStyleFile(defaultStyle);
        axSymbologyControl1.StyleClass = styleClass;
        axSymbologyControl1.GetStyleClass(axSymbologyControl1.StyleClass).SelectItem(0);
        cbxStyles.Text = defaultStyle;
    }
    stylesPath = sInstall + "\\Styles";
    cbxStyles.Items.Clear();
    cbxStylesAddItems(stylesPath);
}
```

- Load event of GetSymbol:

```csharp
private void GetSymbol_Load(object sender, EventArgs e)
{
    LoadStyles();
}
```

- Click event of "OK" and "Cancel":

```csharp
public IStyleGalleryItem m_styleGalleryItem;
private void cmdCancel_Click(object sender, EventArgs e)
{
    m_styleGalleryItem = null;
    this.Hide();
}
private void cmdOK_Click(object sender, EventArgs e)
{
    this.Hide();
}
```

- PreviewImage method and OnItemSelected event of axSymbologyControl:

```csharp
private void axSymbologyControl1_OnItemSelected(object sender,
    ISymbologyControlEvents_OnItemSelectedEvent e)
{
    m_styleGalleryItem = e.styleGalleryItem as IStyleGalleryItem;
}
private void PreviewImage()
{
    ISymbologyStyleClass symbologyStyleClass =
        axSymbologyControl1.GetStyleClass(axSymbologyControl1.StyleClass);
    stdole.IPictureDisp picture = symbologyStyleClass.PreviewItem
        (m_styleGalleryItem, pictureBox1.Width, pictureBox1.Height);
    System.Drawing.Image image = System.Drawing.Image.
        FromHbitmap(new System.IntPtr(picture.Handle));
    pictureBox1.Image = image;
}
```

- Click event of "Other" and SelectedIndexChanged event of cbxStyles:

```csharp
private void btnOtherStyles_Click(object sender, EventArgs e)
{
    if (folderBrowserDialog1.ShowDialog() == DialogResult.OK)
    {
        stylesPath = folderBrowserDialog1.SelectedPath;
        cbxStylesAddItems(stylesPath);
    }
}

private void cbxStyles_SelectedIndexChanged(object sender, EventArgs e)
{
    if (cbxStyles.SelectedItem == null) return;
    axSymbologyControl1.Clear();
    stylesPath = cbxStyles.SelectedItem.ToString();
    string ext = System.IO.Path.GetExtension(stylesPath).ToLower();
    if (ext == ".serverstyle")
        axSymbologyControl1.LoadStyleFile(stylesPath);
    if (ext == ".style")
        axSymbologyControl1.LoadDesktopStyleFile(stylesPath);
    axSymbologyControl1.StyleClass = styleClass;
}
```

3. Back to MainForm:

- GetSymbolByControl:

```csharp
private ISymbol GetSymbolByControl(ISymbol symbolType)
{
    ISymbol symbol = null;
    IStyleGalleryItem styleGalleryItem = null;
    esriSymbologyStyleClass styleClass = esriSymbologyStyleClass.
        esriStyleClassMarkerSymbols;
    if (symbolType is IMarkerSymbol)
    {
        styleClass = esriSymbologyStyleClass.esriStyleClassMarkerSymbols;
    }
    if (symbolType is ILineSymbol)
    {
        styleClass = esriSymbologyStyleClass.esriStyleClassLineSymbols;
    }
    if (symbolType is IFillSymbol)
    {
        styleClass = esriSymbologyStyleClass.esriStyleClassFillSymbols;
    }

    GetSymbol symbolForm = new GetSymbol(styleClass);
    symbolForm.ShowDialog();
    styleGalleryItem = symbolForm.m_styleGalleryItem;
    if (styleGalleryItem == null)
        return null;
    symbol = styleGalleryItem.Item as ISymbol;
    symbolForm.Dispose();
    this.Activate();
    return symbol;
}
```

- Add code in click event of axTocControl:

```
if (e.button == 1)
{
    if (layer == null)
        return;
    IFeatureLayer featurelayer = layer as IFeatureLayer;
    if (featurelayer == null)
        return;
    IGeoFeatureLayer geoFeatureLayer = (IGeoFeatureLayer)featurelayer;
    ILegendClass legendClass = new LegendClassClass();
    ISymbol symbol = null;
    if (other is ILegendGroup && (int)index != -1)
    {
        legendClass = ((ILegendGroup)other).get_Class((int)index);
        symbol = legendClass.Symbol;
    }
    if (symbol == null)
        return;
    symbol = GetSymbolByControl(symbol);
    if (symbol == null)
        return;
    legendClass.Symbol = symbol;
    this.Activate();
    ((IActiveView)m_MapDocument.get_Map(0)).ContentsChanged();

    axMapControl1.ActiveView.ContentsChanged();
    axMapControl1.Refresh(esriViewDrawPhase.esriViewGeography, null, null);
    axMapControl1.Refresh();
    axTOCControl1.Update();
}
```