



Dot Spatial - Vytvoření vrstvy

DotSpatial – Create Layer



- FeatureSet
- Kontruktor geometrického typu

```
FeatureSet fs = new  
FeatureSet(FeatureType.Point);
```

Vytvoření geoprvku



- `DotSpatial.Topology.Geometrie`

```
new DotSpatial.Topology.Point(x, y)
```

Přidání geopravku do sady



- `FeatureSet.AddFeature(geometrie);`
- Metoda vrací `IFeature`

```
IFeature feature = fs.AddFeature(new  
DotSpatial.Topology.Point(x, y));
```

Přidání atributů



- FeatureSet.DataTable

```
fs.DataTable.Columns.Add("id");
```

Zápis atributů



- IFeature.DataRow

```
IFeature feature = fs.AddFeature(new  
DotSpatial.Topology.Point(x, y));  
feature.DataRow.BeginEdit();  
feature.DataRow[0] = "Hodnota"  
feature.DataRow.EndEdit();
```

Přidání sady do mapy



- MapPointLayer
- Symbolizer

```
MapPointLayer layer = new MapPointLayer(fs);  
layer.Symbolizer = new  
PointSymbolizer(Color.Blue,  
DotSpatial.Symbology.PointShape.Star, 15);  
layer.legendText = "Název";  
map1.Layers.Add(layer);
```

Příklad přidání CSV



x;y;a;b;c

10;10;A;B;C

15;16;AA;BBB;CCC

Dialog



```
OpenFileDialog dialog = new OpenFileDialog();  
dialog.Filter = "csv files (*.csv; *.txt)|*.csv;*.txt|All  
files (*.*)|*.*";  
dialog.InitialDirectory = @"C:\";  
dialog.Title = "Vyberte CSV pro vytvoření vrstvy.";  
  
if (dialog.ShowDialog() == DialogResult.OK)
```

Hlavička



```
StreamReader reader = new StreamReader(dialog.FileName);
FeatureSet fs = new FeatureSet(FeatureType.Point);
String line = reader.ReadLine();
int xpos = -1;
int ypos = -1;
if (line != null) {
    string[] words = line.Split(';');
    int i = 0;
    foreach (string word in words) {
        fs.DataTable.Columns.Add(word);
        if (word == "x") xpos = i;
        if (word == "y") ypos = i;
        i++;
    }
}
```

Existuje x, y



```
if (xpos != -1 && ypos != -1) {  
    while ((line = reader.ReadLine()) != null) {  
        //Zpracování řádků  
    }  
}
```

Získání prvků a x, y



```
string[] words = line.Split(';');  
double x, y;  
if (!Double.TryParse(words[xpos], out x)) {  
    MessageBox.Show("Chyba pri prevodu  
souradnice X: " + words[xpos]);  
    continue;  
}  
if (!Double.TryParse(words[ypos], out y)) {  
    MessageBox.Show("Chyba pri prevodu  
souradnice Y: " + words[ypos]);  
    continue;  
}
```

Vytvoření feature



```
IFeature feature = fs.AddFeature(new
DotSpatial.Topology.Point(x, y));
feature.DataRow.BeginEdit();
for (int i = 0; i < words.Length; i++) {
    feature.DataRow[i] = words[i];
}
feature.DataRow.EndEdit();
```

Přidání do mapy



```
MapPointLayer csvLayer = new  
MapPointLayer(fs);  
csvLayer.Symbolizer = new  
PointSymbolizer(Color.Blue,  
DotSpatial.Symbology.PointShape.Star, 15);  
csvLayer.LegendText = "CSV Layer";  
mapMain.Layers.Add(csvLayer);
```

Uložení do Shapefile



```
fs.SaveAs("C:\\Temp\\roads_test.shp", true);
```

Použité zdroje



- <http://dotspatial.codeplex.com/discussions/436929>
- <http://stackoverflow.com/questions/2069048/setting-the-filter-to-an-openfiledialog-to-allow-the-typical-image-formats>
- http://dotspatial.codeplex.com/wikipage?title=Desktop_SampleCode
- https://sharpmap.svn.codeplex.com/svn/Branches/0.9.5-DeltaShell/src_/Common/NetTopologySuite/IO/GML2/GMLReader.cs