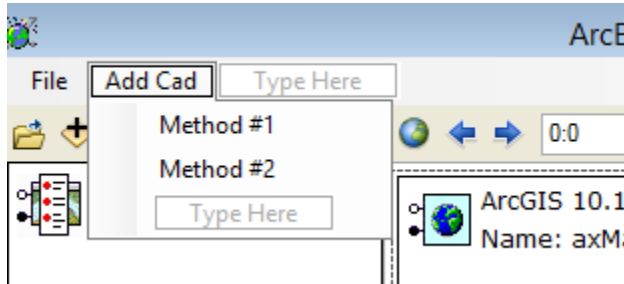


## Chapter 5 Add CAD

1. This chapter I will introduce how to add CAD file. In the menu of MainForm, add contents as following graph:



2. Click method for “Method #1”

```
private void method1ToolStripMenuItem_Click(object sender, EventArgs e)
{
    System.Windows.Forms.OpenFileDialog openFileDialog = new
System.Windows.Forms.OpenFileDialog();

    openFileDialog.Filter = "CAD (*.dwg)|*.dwg";
    openFileDialog.FilterIndex = 2;
    openFileDialog.RestoreDirectory = true;
    openFileDialog.Multiselect = false;
    if (openFileDialog.ShowDialog() == System.Windows.Forms.DialogResult.OK)
    {
        string filename = openFileDialog.FileName;
        if (filename != "")
        {
            //axMapControl1.ClearLayers();

            IWorkspaceFactory pCadWorkspaceFactory = new CadWorkspaceFactory();

            IWorkspace pWorkspace =
pCadWorkspaceFactory.OpenFromFile(System.IO.Path.GetDirectoryName(filename), 0);

            ICadDrawingWorkspace pCadDrawingWorkspace = (ICadDrawingWorkspace)pWorkspace;

            ICadDrawingDataset pCadDataset =
pCadDrawingWorkspace.OpenCadDrawingDataset(System.IO.Path.GetFileName(filename));

            ICadLayer pCadLayer = new CadLayerClass();

            pCadLayer.CadDrawingDataset = pCadDataset;
```

```

        axMapControl1.AddLayer(pCadLayer, 0);
    }
}
}

```

### 3. Click method for “Method #2”

```

private void method2ToolStripMenuItem_Click(object sender, EventArgs e)
{
    System.Windows.Forms.OpenFileDialog openFileDialog = new
System.Windows.Forms.OpenFileDialog();

    openFileDialog.Filter = "CAD (*.dwg)|*.dwg";
    openFileDialog.FilterIndex = 2;
    openFileDialog.RestoreDirectory = true;
    openFileDialog.Multiselect = false;
    if (openFileDialog.ShowDialog() == System.Windows.Forms.DialogResult.OK)
    {
        string filename = openFileDialog.FileName;
        if (filename != "")
        {
            //axMapControl1.ClearLayers();

            IWorkspaceFactory pCadWorkspaceFactory = new CadWorkspaceFactory();

            IFeatureWorkspace pWorkspace =
pCadWorkspaceFactory.OpenFromFile(System.IO.Path.GetDirectoryName(filename), 0) as
IFeatureWorkspace;

            IFeatureDataset pFeatureDataset =
pWorkspace.OpenFeatureDataset(System.IO.Path.GetFileName(filename));

            IFeatureClassContainer pFeatureClassContainer = pFeatureDataset as
IFeatureClassContainer;

            IFeatureClass pFeatureClass;
            IFeatureLayer pFeatureLayer;
            for (int i = 0; i < pFeatureClassContainer.ClassCount; i++)
            {
                pFeatureClass = pFeatureClassContainer.get_Class(i);
            }
        }
    }
}

```

```
        if (pFeatureClass.FeatureType == esriFeatureType.esriFTCoverageAnnotation)

            pFeatureLayer = new CadAnnotationLayerClass();

        else

            pFeatureLayer = new FeatureLayerClass();

        pFeatureLayer.Name = pFeatureClass.AliasName;
        pFeatureLayer.FeatureClass = pFeatureClass;
        axMapControl1.AddLayer(pFeatureLayer, 0);
    }
}
}
```