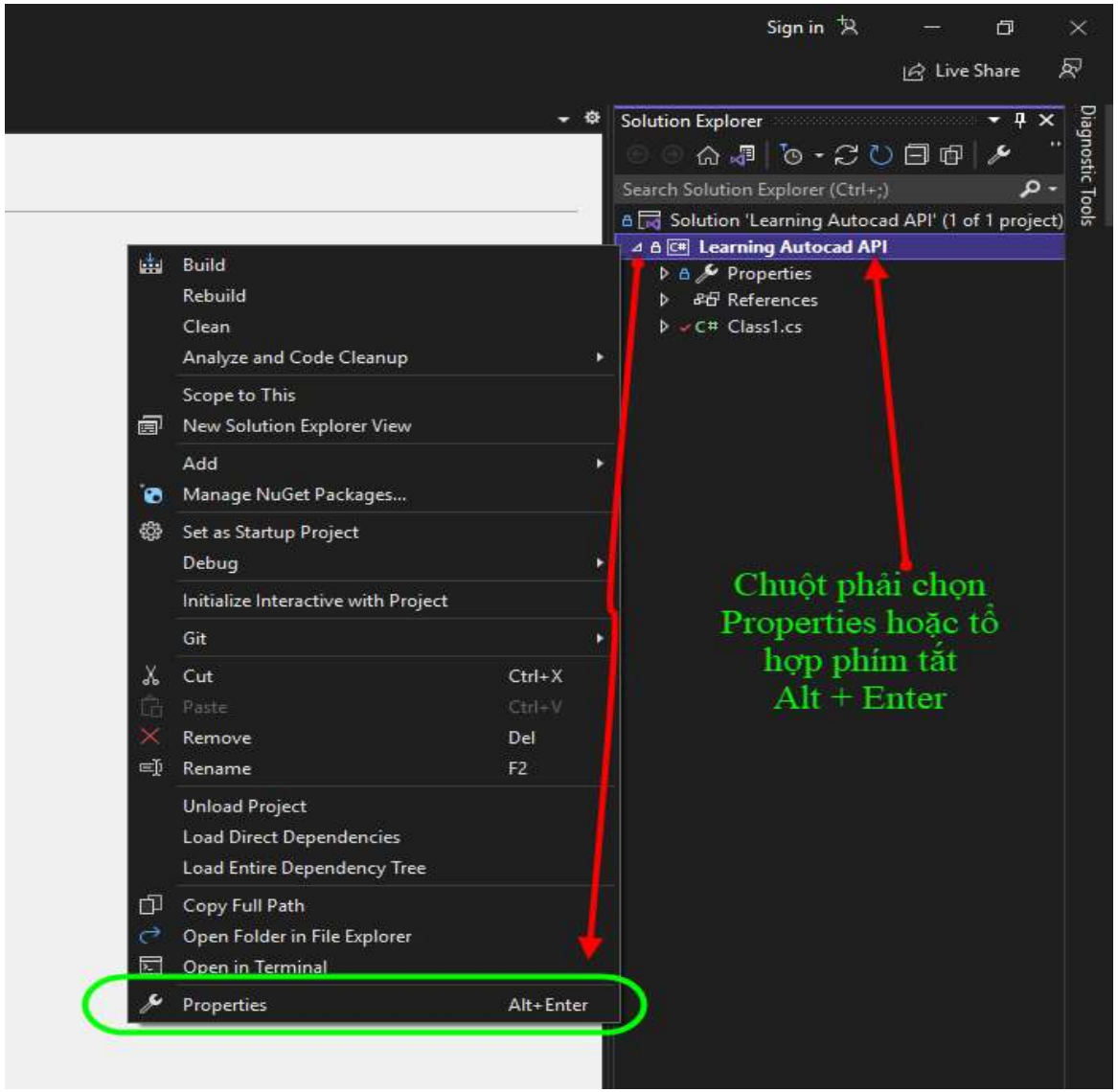
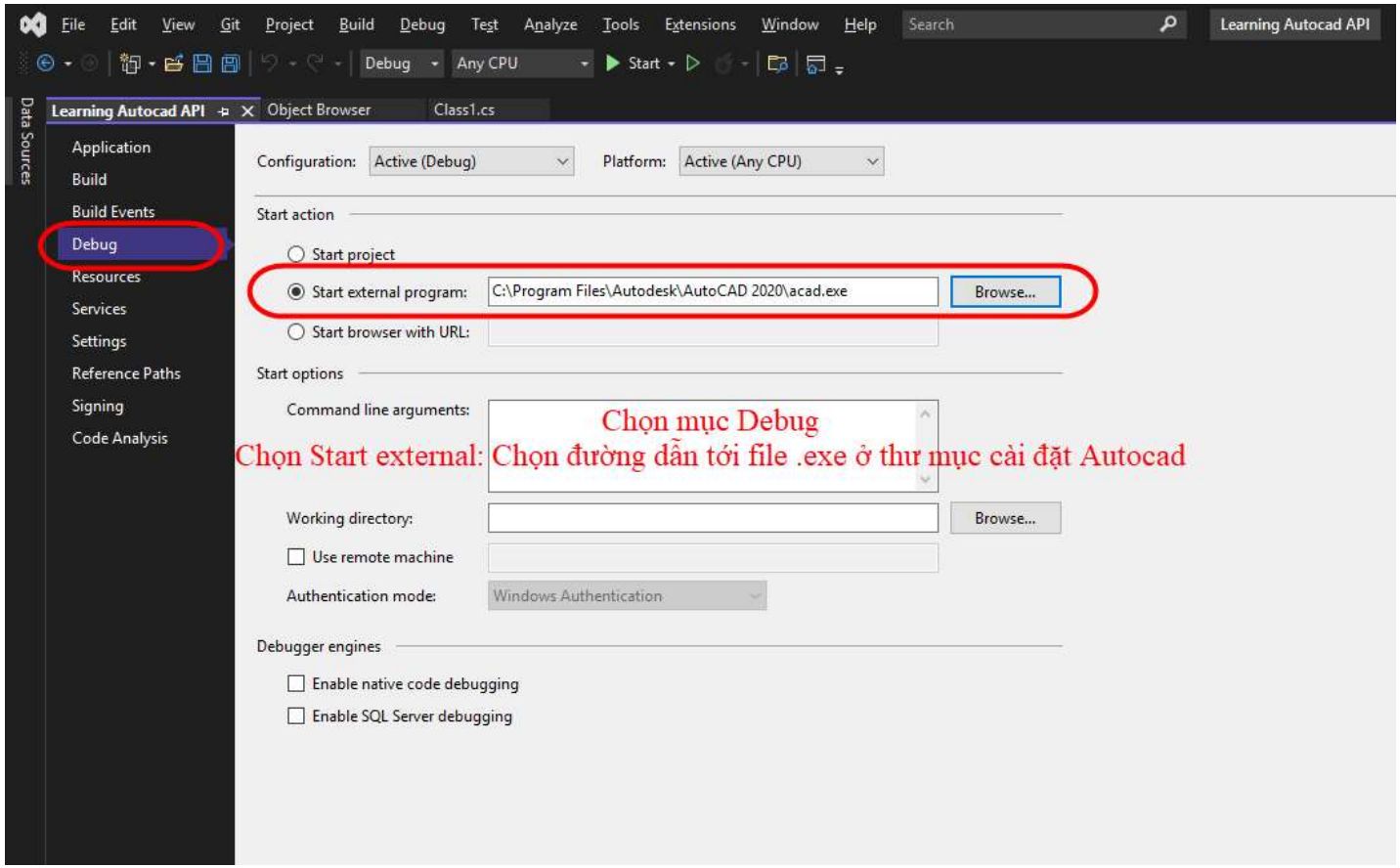
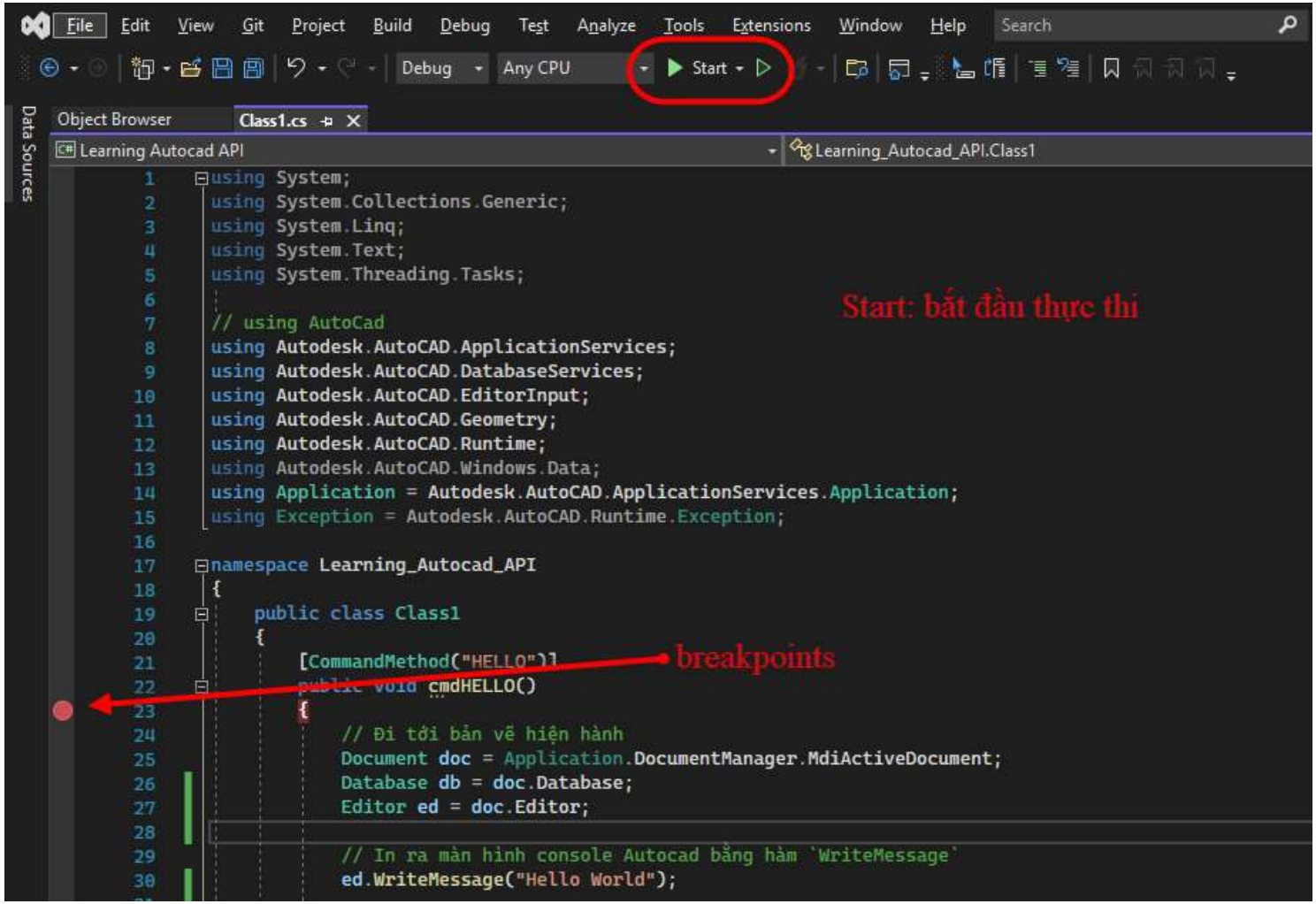
Debug Code: mục đính để hiểu code hoạt động như thế nào





Debug kết hợp breakpoints để kiểm tra, xử lý lỗi khi code


File Edit View Git Project Build Debug Test Analyze Tools Extensions Window Help Search
Debug Any CPU Start
Object Browser
Class1.cs
Learning Autocad API
Learning_Autocad_API.Class1
Start: bắt đầu thực thi
breakpoints
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
// using AutoCad
using Autodesk.AutoCAD.ApplicationServices;
using Autodesk.AutoCAD.DatabaseServices;
using Autodesk.AutoCAD.EditorInput;
using Autodesk.AutoCAD.Geometry;
using Autodesk.AutoCAD.Runtime;
using Autodesk.AutoCAD.Windows.Data;
using Application = Autodesk.AutoCAD.ApplicationServices.Application;
using Exception = Autodesk.AutoCAD.Runtime.Exception;
namespace Learning_Autocad_API
{
public class Class1
{
[CommandMethod("HELLO")]
public void cmdHELLO()
{
// Đi tới bản vẽ hiện hành
Document doc = Application.DocumentManager.MdiActiveDocument;
Database db = doc.Database;
Editor ed = doc.Editor;
// In ra màn hình console Autocad bằng hàm `WriteMessage`
ed.WriteMessage("Hello World");

Cách tra cứu các function, method, properties, event:

Go To Definition (F12)

View in Object Browser

Autodesk AutoCAD: ActiveX Reference Guide

AutoCAD .NET Developer's Guide (code mẫu)

SNOOP (properties)

Thường sẽ sử dụng:

1. Go To Definition (F12): để kiểm tra các parameter cần nhập có kiểu dữ liệu nào
2. AutoCAD .NET Developer's Guide

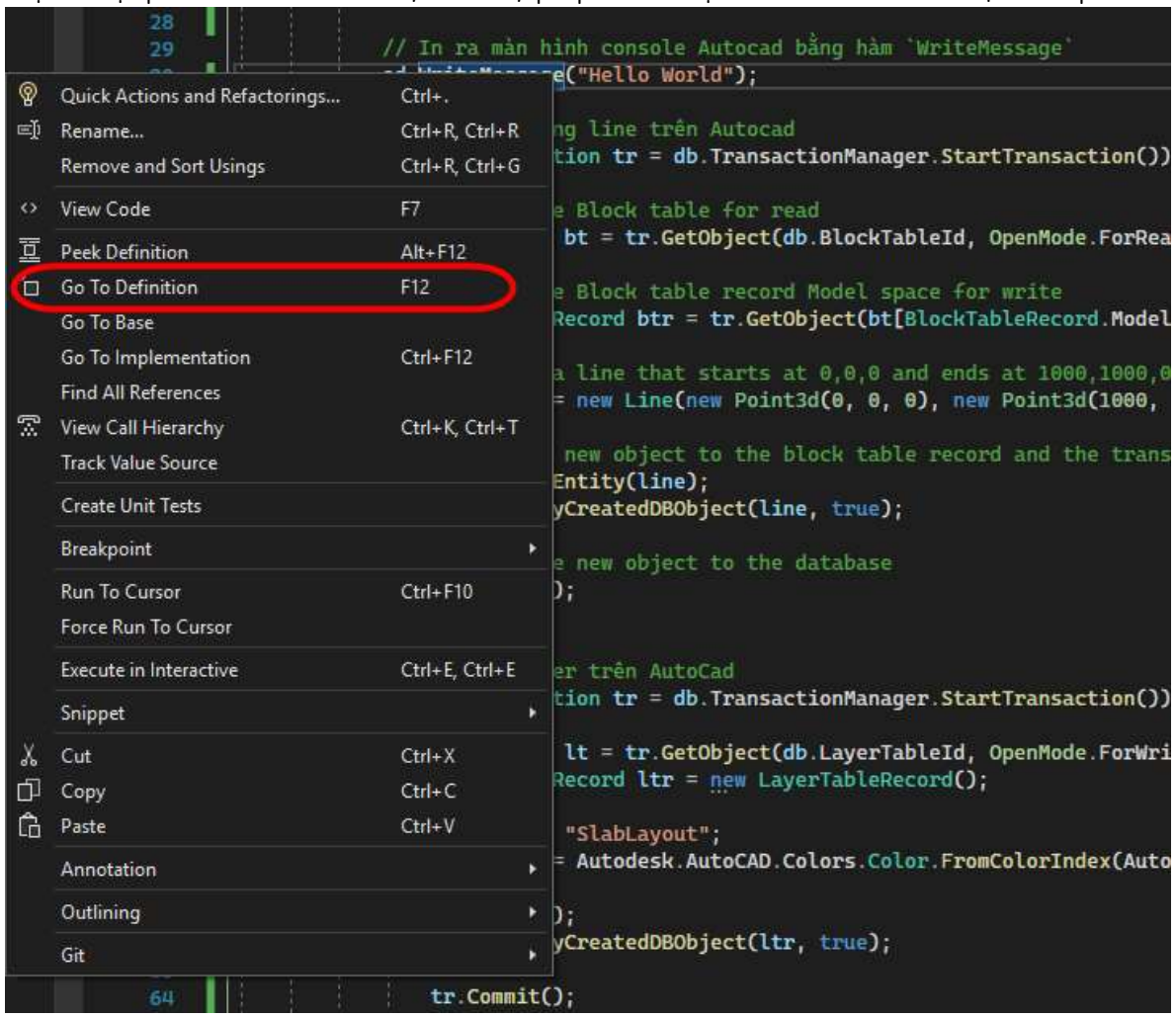
http://docs.autodesk.com/ACD/2010/ENU/AutoCAD%20.NET%20Developer%27s%20Guide/index.html

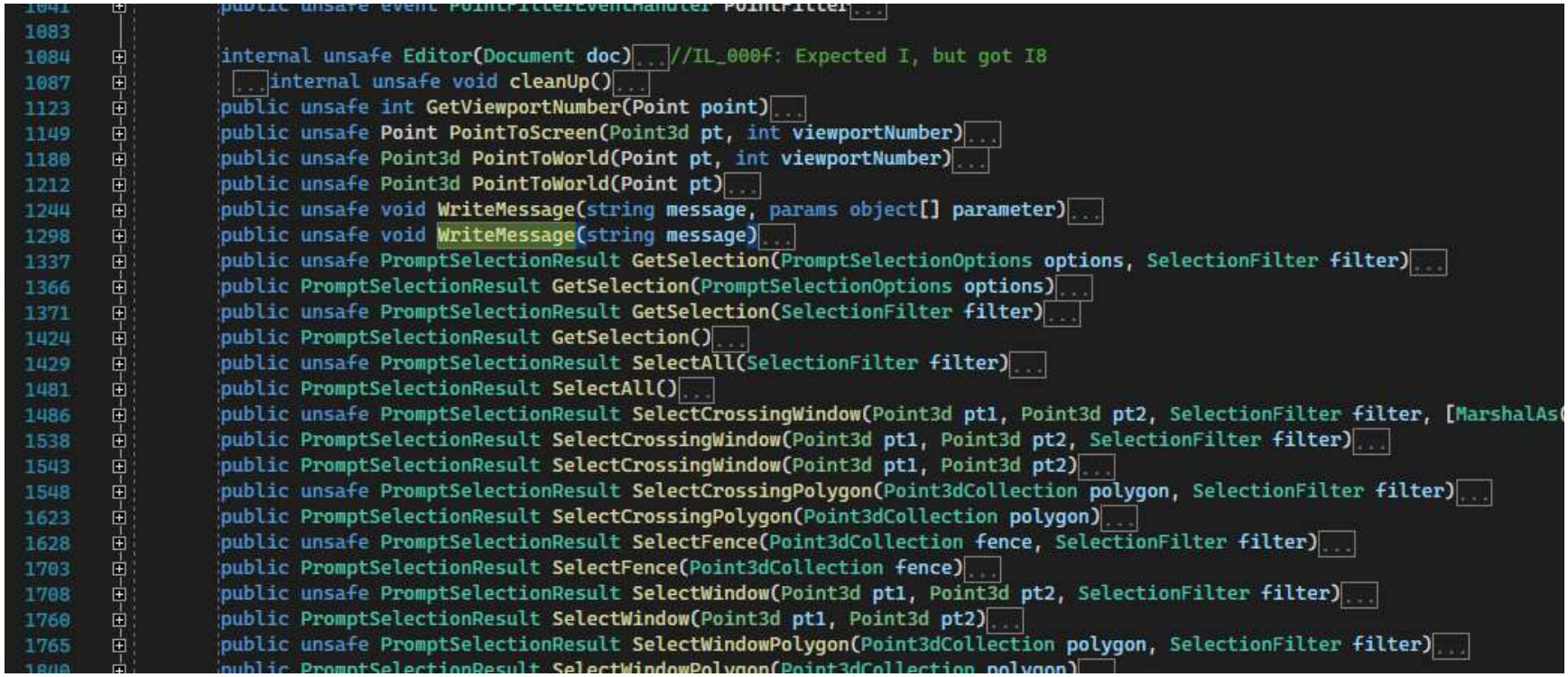
để xem code mẫu của AutoDesk

3. SNOOP: để xem tất cả các properties của đối tượng trên AutoCad

Go To Definition (F12)

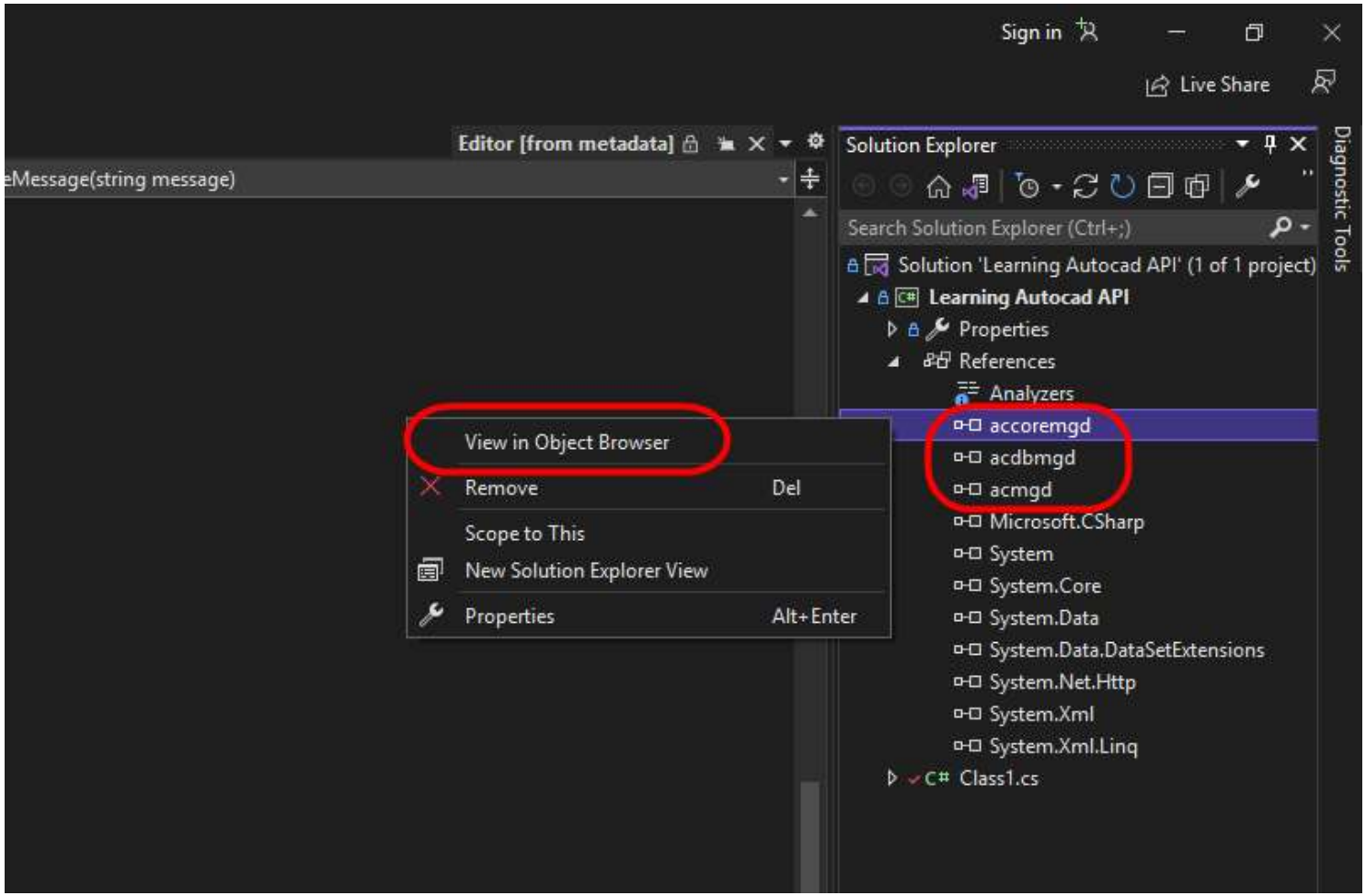
chọn chuội phải vào các function, method, properties chọn Go To Definition hoặc bấm phím tắt F12

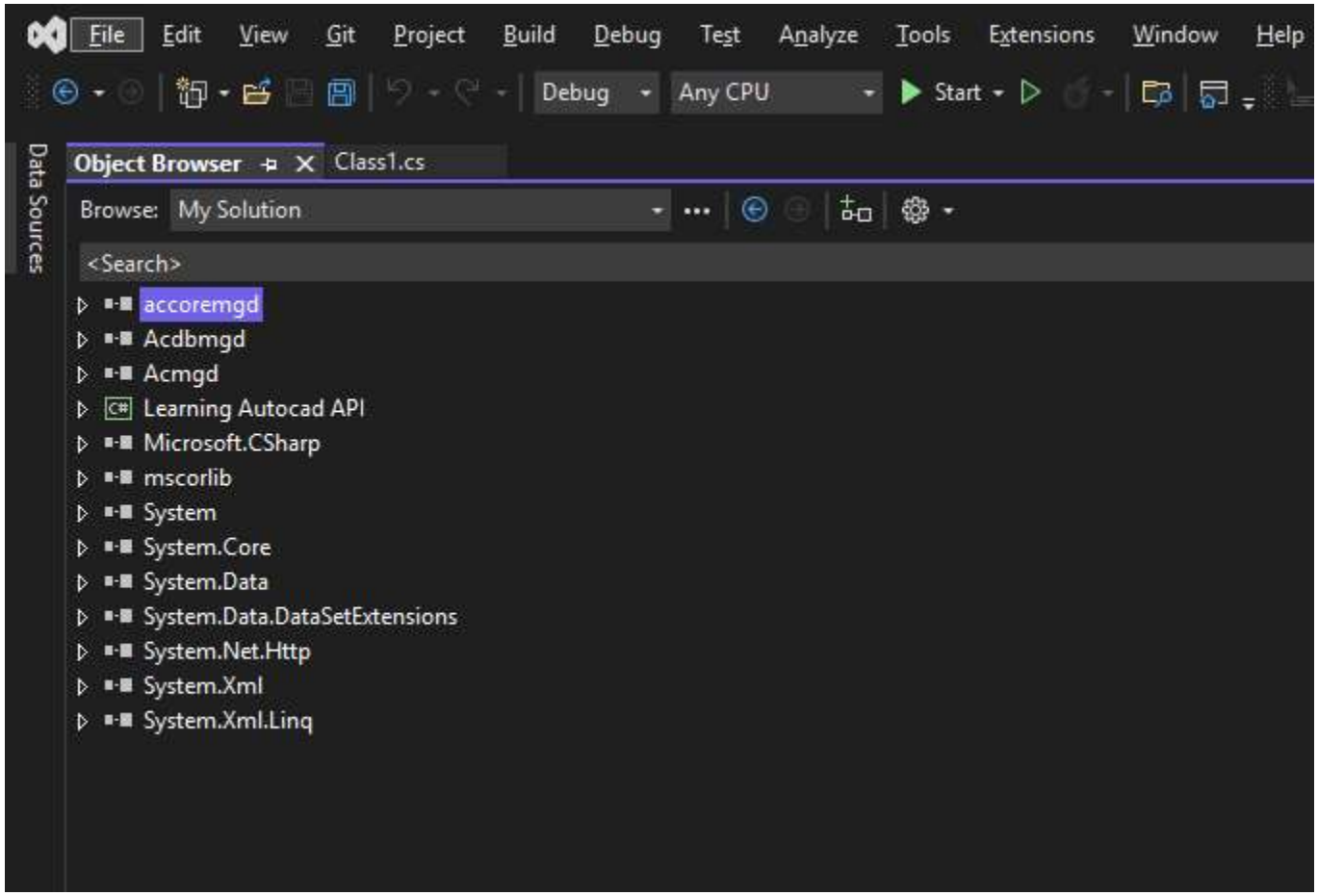



1041 public unsafe event PointFilterEventHandler PointFilter...
1083
1084 internal unsafe Editor(Document doc)...//IL_000f: Expected I, but got I8
1087 ...internal unsafe void cleanUp()...
1123 public unsafe int GetViewportNumber(Point point)...
1149 public unsafe Point PointToScreen(Point3d pt, int viewportNumber)...
1180 public unsafe Point3d PointToWorld(Point pt, int viewportNumber)...
1212 public unsafe Point3d PointToWorld(Point pt)...
1244 public unsafe void WriteMessage(string message, params object[] parameter)...
1298 public unsafe void WriteMessage(string message)...
1337 public unsafe PromptSelectionResult GetSelection(PromptSelectionOptions options, SelectionFilter filter)...
1366 public PromptSelectionResult GetSelection(PromptSelectionOptions options)...
1371 public unsafe PromptSelectionResult GetSelection(SelectionFilter filter)...
1424 public PromptSelectionResult GetSelection()...
1429 public unsafe PromptSelectionResult SelectAll(SelectionFilter filter)...
1481 public PromptSelectionResult SelectAll()...
1486 public unsafe PromptSelectionResult SelectCrossingWindow(Point3d pt1, Point3d pt2, SelectionFilter filter, [MarshalAs(
1538 public PromptSelectionResult SelectCrossingWindow(Point3d pt1, Point3d pt2, SelectionFilter filter)...
1543 public PromptSelectionResult SelectCrossingWindow(Point3d pt1, Point3d pt2)...
1548 public unsafe PromptSelectionResult SelectCrossingPolygon(Point3dCollection polygon, SelectionFilter filter)...
1623 public PromptSelectionResult SelectCrossingPolygon(Point3dCollection polygon)...
1628 public unsafe PromptSelectionResult SelectFence(Point3dCollection fence, SelectionFilter filter)...
1703 public PromptSelectionResult SelectFence(Point3dCollection fence)...
1708 public unsafe PromptSelectionResult SelectWindow(Point3d pt1, Point3d pt2, SelectionFilter filter)...
1760 public PromptSelectionResult SelectWindow(Point3d pt1, Point3d pt2)...
1765 public unsafe PromptSelectionResult SelectWindowPolygon(Point3dCollection polygon, SelectionFilter filter)...
1840 public PromptSelectionResult SelectWindowPolygon(Point3dCollection polygon)...

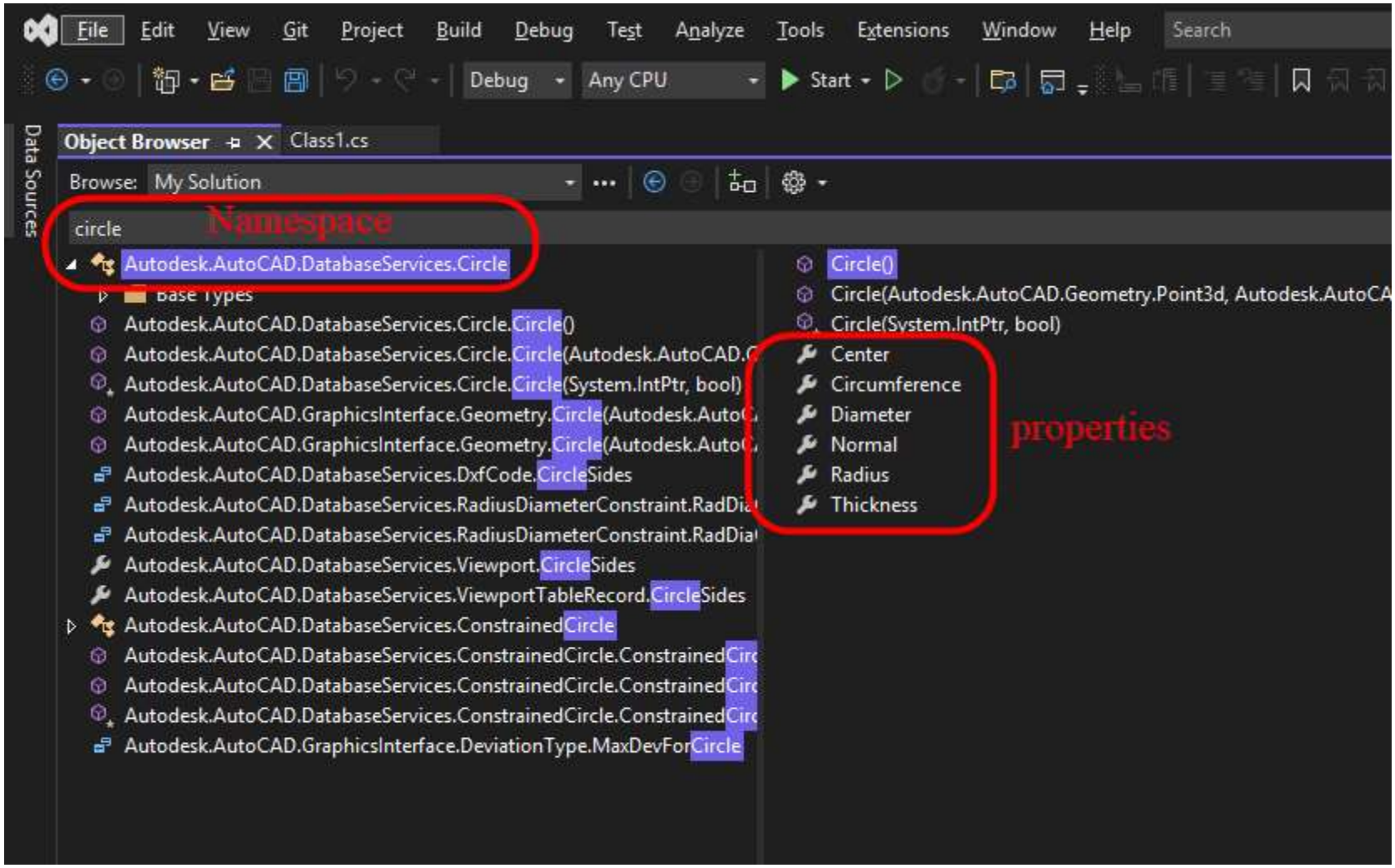
View in Object Browser

Chọn vào file .dll đã load từ trước chọn View in Object Browser





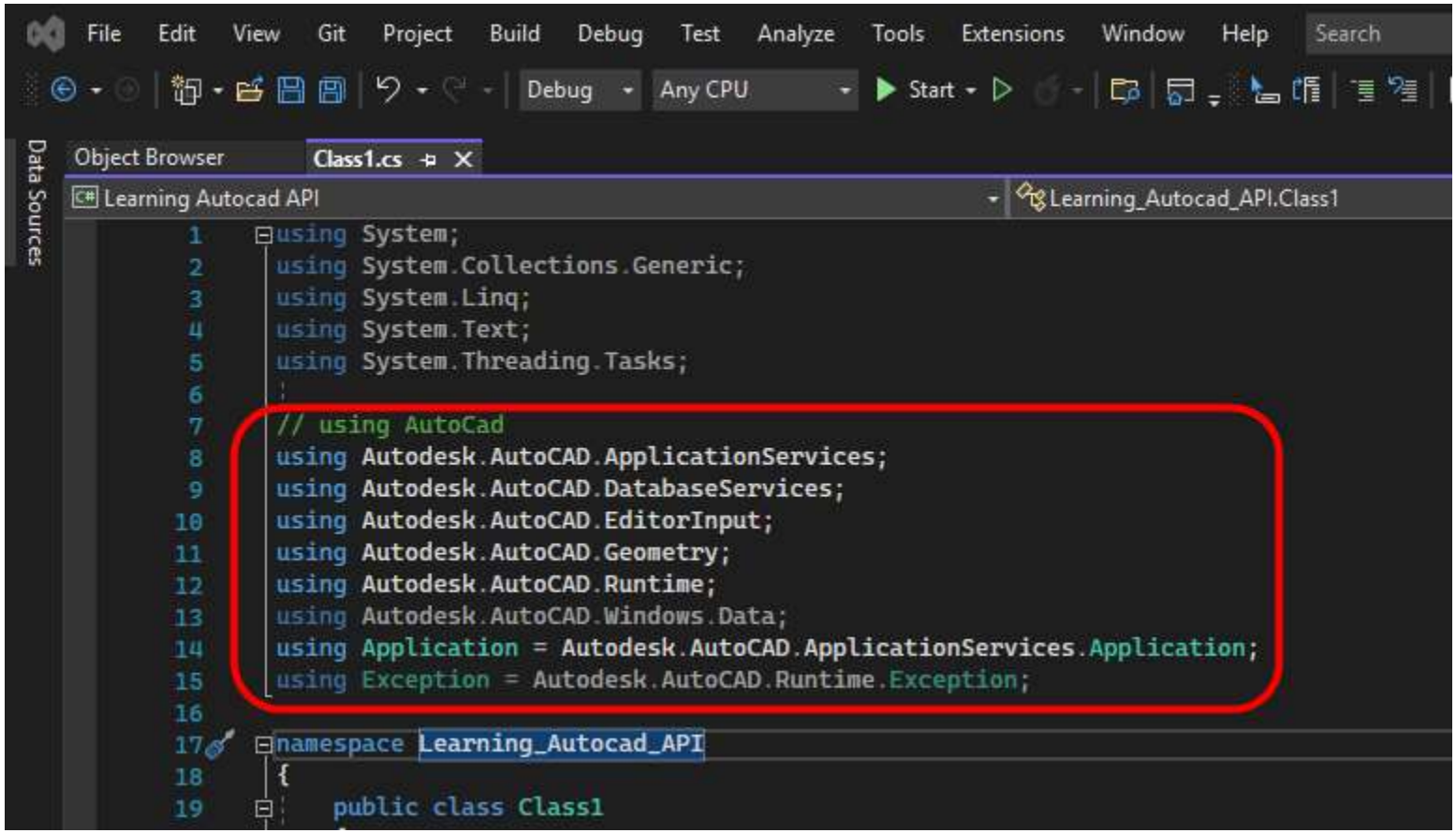
Accoremgd.dll: làm việc với các thao tác (select, pick, …)
Acdbmgd.dll: làm việc với các đối tượng (line, polyline, circle, …)
Acmgd.dll: làm việc với ứng dụng



Ví dụ tìm `circle` có Namespace: Autodesk.AutoCAD.DatabaseServices

với các properties: Center, Diameter, Radius, ...

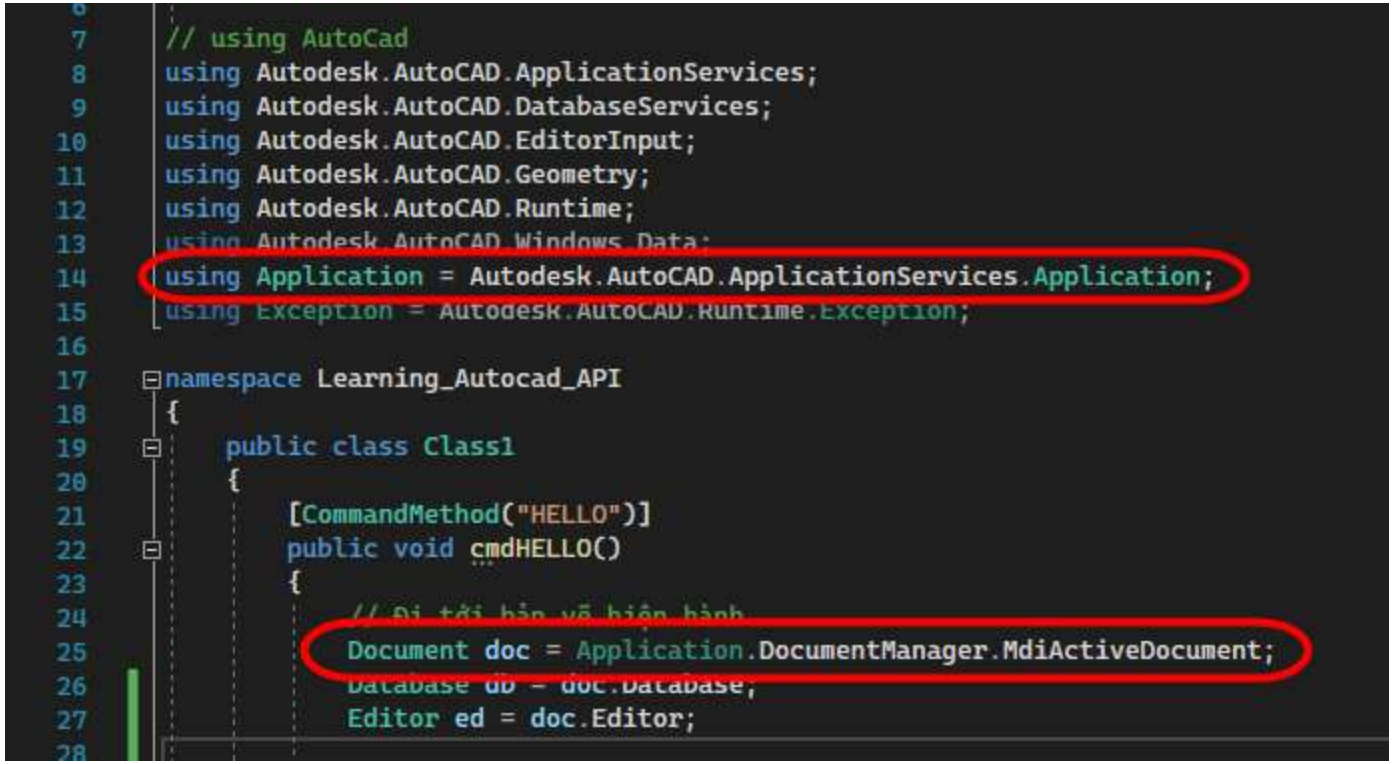
Namespace dùng để using tới bản vẽ



Nếu không có using namespace cũng không có vấn đề gì, chỉ là code dài hơn

Ví dụ:

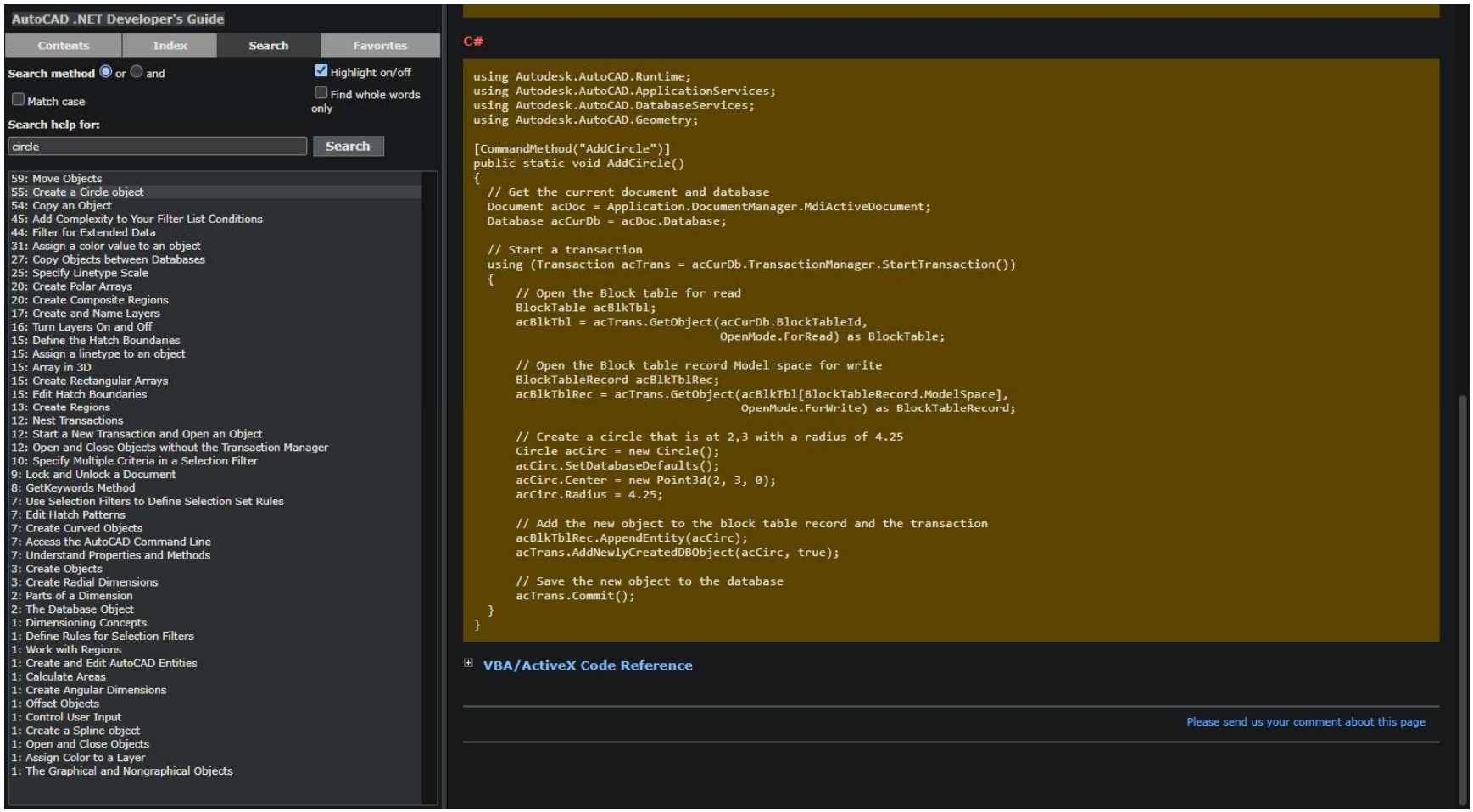
Trường hợp có using namespace



Trường hợp không có using namespace

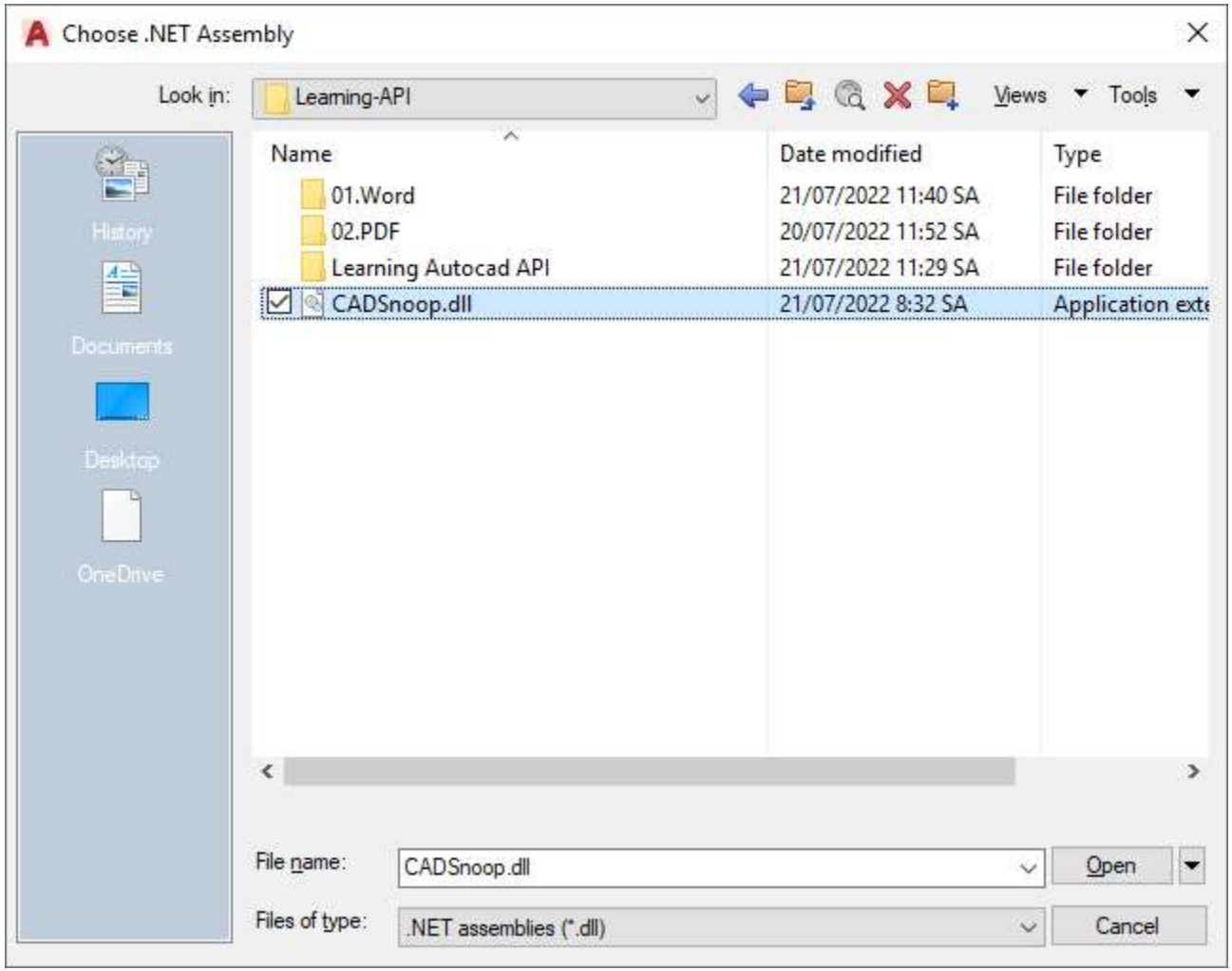
```
// using AutoCad
using Autodesk.AutoCAD.ApplicationServices;
using Autodesk.AutoCAD.DatabaseServices;
using Autodesk.AutoCAD.EditorInput;
using Autodesk.AutoCAD.Geometry;
using Autodesk.AutoCAD.Runtime;
using Autodesk.AutoCAD.Windows.Data;
//using Application = Autodesk.AutoCAD.ApplicationServices.Application;
using Exception = Autodesk.AutoCAD.Runtime.Exception;

namespace Learning_Autocad_API
{
    public class Class1
    {
        [CommandMethod("HELLO")]
        public void cmdHELLO()
        {
            // Đi tới bản vẽ hiện hành
            Document doc = Autodesk.AutoCAD.ApplicationServices.Application.DocumentManager.MdiActiveDocument;
            Database db = doc.Database;
            Editor ed = doc.Editor;
```

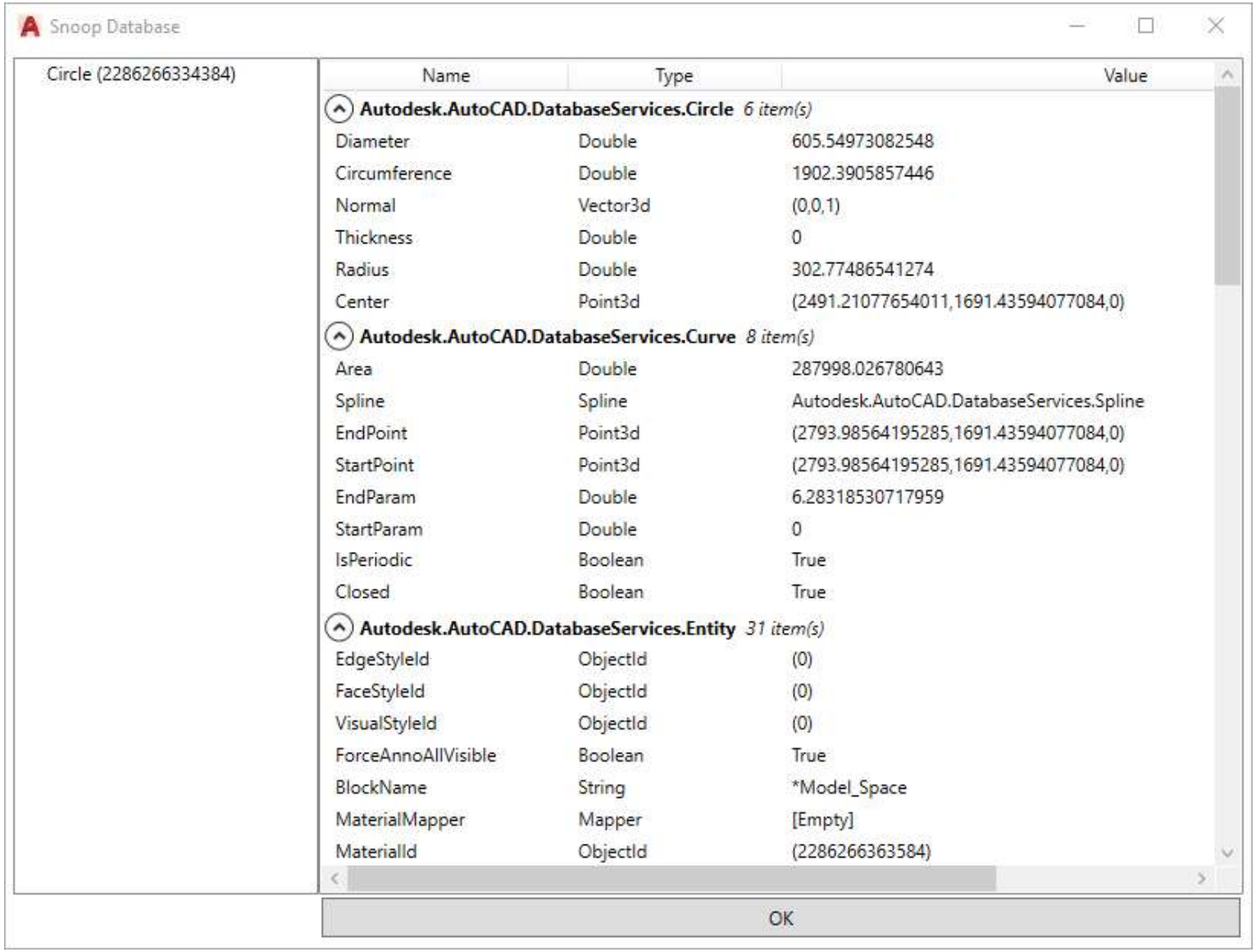
AutoCAD .NET Developer's Guide



SNOOP (properties)

Netload file CADSnoop.dll và sử dụng lệnh SNOOP




Snoop Database
Circle (2286266334384)
Name
Type
Value
Autodesk.AutoCAD.DatabaseServices.Circle 6 item(s)
Diameter Double 605.54973082548
Circumference Double 1902.3905857446
Normal Vector3d (0,0,1)
Thickness Double 0
Radius Double 302.77486541274
Center Point3d (2491.21077654011,1691.43594077084,0)
Autodesk.AutoCAD.DatabaseServices.Curve 8 item(s)
Area Double 287998.026780643
Spline Spline Autodesk.AutoCAD.DatabaseServices.Spline
EndPoint Point3d (2793.98564195285,1691.43594077084,0)
StartPoint Point3d (2793.98564195285,1691.43594077084,0)
EndParam Double 6.28318530717959
StartParam Double 0
IsPeriodic Boolean True
Closed Boolean True
Autodesk.AutoCAD.DatabaseServices.Entity 31 item(s)
EdgeStyleId ObjectId (0)
FaceStyleId ObjectId (0)
VisualStyleId ObjectId (0)
ForceAnnoAllVisible Boolean True
BlockName String *Model_Space
MaterialMapper Mapper [Empty]
MaterialId ObjectId (2286266363584)
OK