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Thread: [\[Tutorial\] Plugin System for your App](#)

**Venom Page** - June 5, 2011, 8:19 am

This tutorial teaches you the basics of .NET Reflection and shows how to create a simple Plugin-System based on Assemblies.

I will use C# instead of VB, just because I think it has the superior syntax, but it should translate to any .NET language.

What we're trying to do:

We want to have a Collection of Plugin-Objects which can be dynamically loaded from DLL files and then used as if they were compiled into the main assembly.

We need:

- An interface (duh.)
- A collection for the Plugins
- A function to load a Plugin into the collection.

We need to define our Collection and our Interface:

Code `public static List<IPlugin> plugins = new List<IPlugin>();`

`public interface IPlugin`

```
{  
    public Version GetVersion();  
    public string GetPluginName();  
}
```

Note that this interface isn't useful at all and just returns Metadata, you can extend it so it fits your needs.

Next is the function to load plugins:

Code `public static void LoadPlugin(string dllFilename)`

```
{  
    if (!System.IO.File.Exists(dllFilename))  
        return;  
    try  
    {  
        var pluginAssembly = Assembly.LoadFrom(dllFilename);  
  
        foreach (var type in pluginAssembly.GetTypes())  
        {  
            Type pluginType = type.GetInterface("Your.Namespace.IPlugin");  
  
            if (pluginType != null)  
            {  
                plugins.Add((IPlugin)Activator.CreateInstance(pluginType));  
            }  
        }  
    }  
}
```

```
        catch (Exception e)
        {
            throw new Exception("Could not load plugin!", e);
        }
    }
}
```

Sample plugin:Code ´

```
public class PluginExample : IPlugin
{
```

```
    public Version GetVersion()
    {
        return new Version(1, 0, 0, 0);
    }
```

```
    public string GetPluginName()
    {
        return "ExamplePlugin";
    }
}
```

You can now call your plugin-code from the List ;)

**IllBeBackSoon** - June 6, 2011, 6:36 pm

Hey, I'm glad you like it here on HF. Enjoy it Alex.