Hiding a function

Asked 16 years, 2 months ago Modified 5 years, 2 months ago Viewed 465 times



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I have a class holding complex scientific computations. It is set up to only allow a user to create a properly instantiated case. To properly test the code, however, requires setting internal state variables directly, since the reference documents supply this data in their test cases. Done improperly, however, it can invalidate the state.





So I must have the ability, a member function, to set internal variables from the unit test programs. But I want to **strongly discourage** normal users from calling this function. (Yes, a determined user can muck with anything... but I don't want to *advertise* that there is a way to do something *wrong*.)

It would be nice to be able to tell Intellisense to not show the function, for instance.

The best solution I have at the moment is to just name the function something like: DangerousSet().

What other options do I have?

Follow-Up

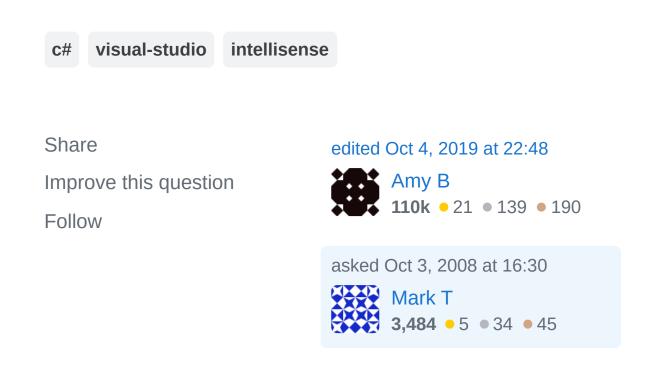
I found Amy B's answer most useful to my situation. Thanks!

Mufasa's suggestion to use reflection was great, but harder to implement (for me).

Chris' suggestion of using a decorator was good, but didn't pan out.

BFree's suggestion on XML is also good, and was already in use, but doesn't really solve the problem.

Finally, BillTheLizard's suggestion that the problem is in the source documents is not something I can control. International experts publish highly technical books and journal articles for use by their community. The fact that they don't address my particular needs is a fact of life. There simply are no alternative documents.



7 Answers Sorted by: Highest score (default)



14

You can use <u>InternalsVisibleToAttribute</u> to mark internal members as visible to your test assembly. It seems to shine when used in this context, though its not quite "friend".



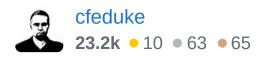
- 1. Mark your DangerousSet function internal instead of public.
- 2. In Properties\AssemblyInfo.cs of the project containing DangerousSet:

```
[assembly:InternalsVisibleTo("YourTestAssembly")
```

If you have two test assemblies for whatever reason, the syntax is:

Share Improve this answer edited Oct 3, 2008 at 16:40 Follow

answered Oct 3, 2008 at 16:31





Decorate your method with this attribute:



This will hide it from Intellisense.



EDIT:



But apparently this has a rather significant caveat: "In Visual C#, EditorBrowsableAttribute does not suppress members from a class in the same assembly." <u>Via MSDN</u>.

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```
edited Apr 29, 2013 at 6:19

Patrick D'Souza
3,553 • 2 • 24 • 39

answered Oct 3, 2008 at 16:33

core
33k • 45 • 140 • 195
```

This sounded like the perfect solution, but it still shows up.

```
Mark T Oct 3, 2008 at 16:36
```



Suppose you want to test this object by manipulating its fields.

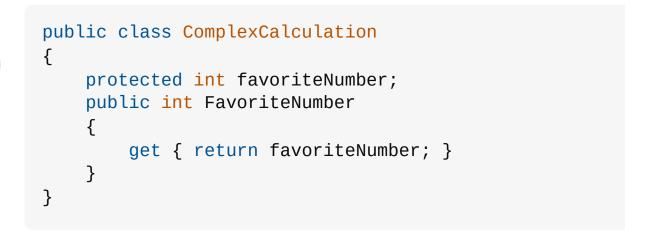












Place this object in your test assembly/namespace:

```
public class ComplexCalculationTest : ComplexCalculati
{
    public void SetFavoriteNumber(int newFavoriteNumbe)
    {
        this.favoriteNumber = newFavoriteNumber;
    }
}
```

And write your test:

```
public void Test()
{
    ComplexCalculationTest myTestObject = new Comp
    myTestObject.SetFavoriteNumber(3);
    ComplexCalculation myObject = myTestObject;

    if (myObject.FavoriteNumber == 3)
        Console.WriteLine("Win!");
}
```

PS: I know you said *internal*, but I don't think you meant internal.

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It sounds like your real problem is in your reference documents. You shouldn't test cases that are impossible to encounter under proper use of your class. If users shouldn't be allowed to change the state of those variables, then neither should your tests.



answered Oct 3, 2008 at 16:36

Bill the Lizard

405k • 211 • 572 • 889

One cannot change scientific source documents. They are what they are. They are written by the international experts in the field who are not concerned about programming (nor should they have to be). – Mark T Oct 3, 2008 at 16:42



You can also use reflection. Google search turned up <u>Unit</u> <u>testing private methods using reflection</u>.

1

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answered Oct 3, 2008 at 17:53







Can your test code include a subclass of the calculations class? If so, you can mark the function protected and only inheritors will be able to use it. I'm pretty sure this also takes it out of intellisense, but I could be wrong about that.



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Ryan 9,928 • 7 • 44 • 57



What I've done in the past is I put XML Comments by the method and used the section to write in big bold letters.

DON'T USE THIS METHOD or whatever. That way, if



DON'T USE THIS METHOD or whatever. That way, if someone tried to use it, Intellisense would give them a nice warning.



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answered Oct 3, 2008 at 16:42



