

# What do you think of using properties as object initializers in C#;

Asked 16 years, 3 months ago   Modified 12 years, 4 months ago   Viewed 490 times



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I was wondering what people thought of using properties as object initializers in C#. For some reason it seems to break the fundamentals of what constructors are used for.

An example...



```
public class Person
{
    string firstName;
    string lastName;

    public string FirstName
    {
        get { return firstName; }
        set { firstName = value; }
    }

    public string LastName
    {
        get { return lastName; }
        set { lastName= value; }
    }
}
```

Then doing object initialization with.....

```
Person p = new Person{ FirstName = "Joe", LastName = "Smith" };
Person p = new Person{ FirstName = "Joe" };
```

C#

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edited Sep 18, 2008 at 0:11



James Sugrue

15k ● 10 ● 62 ● 93

asked Sep 17, 2008 at 23:57



James

65 ● 5

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What you see here is some syntactic sugar provided by the compiler. Under the hood what it really does is something like:

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**Person p = new Person( FirstName = "Joe", LastName = "Smith" );**



```
Person _p$1 = new Person();
_p$1.FirstName = "Joe";
_p$1.LastName = "Smith";
Person p = _p$1;
```



So IMHO you are not really breaking any constructor fundamentals but using a nice language artifact in order to ease readability and maintainability.

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edited Sep 18, 2008 at 0:08

answered Sep 18, 2008 at 0:01

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**Jorge Ferreira**

97.8k ● 25 ● 126 ● 134

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Object initializers does in no way replace constructors. The constructor defines the contract that you have to adhere to in order to create a instance of a class.

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The main motivation for object initializers in the C# language is to support [Anonymous Types](#).



```
var v = new { Foo = 1, Bar = "Hi" };
Console.WriteLine(v.Bar);
```

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answered Sep 18, 2008 at 0:11



**Hallgrim**

15.5k ● 11 ● 48 ● 54



IMHO its sweet. Most objects are newed up with the default constructor, and must have some properties set before they are ready to run; so the object initializers make it easier to code against most objects out there.

4



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answered Sep 18, 2008 at 0:00



**user1228**





2

Constructors should only really have arguments that are *required* to construct the object. Object initialisers are just a convenient way to assign values to properties. I use object initialisers whenever I can as I think it's a tidier syntax.



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answered Sep 18, 2008 at 0:15



Ty.

2,220 ● 1 ● 15 ● 14



2

Since you're already using the new C# syntax, might as well use automatic properties as well, just to sweeten up your code a drop more:

instead of this:



```
string firstName;  
  
public string FirstName  
{  
    get { return firstName; }  
    set { firstName = value; }  
}
```



use this:

```
public string FirstName { get; set; }
```

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edited Jul 30, 2012 at 14:31



phoog

43k ● 6 ● 83 ● 124

answered Sep 18, 2008 at 0:15



BFree

104k ● 21 ● 162 ● 204



1

I think overall it is useful, especially when used with automatic properties. It can be confusing when properties are doing more than get/set. Hopefully this will lead to more methods, and reduce the abuse of properties.



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answered Sep 18, 2008 at 0:04



Nescio

28.4k ● 10 ● 55 ● 76





Not your original question, but still...

1

Your class declaration can be written as:



```
public class Person
{
    public string FirstName { get; set; }
    public string LastName {get; set; }
}
```



and if it were my code, I'd probably have an object for Name with fields First and Last.

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answered Sep 18, 2008 at 0:40



[Jay Bazuzi](#)

46.4k ● 16 ● 115 ● 170



It's also quite necessary for projected classes returned from a language integrated query (linq)

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```
var qry = from something in listofsomething
          select new {
                Firstname = something.FirstName,
                Lastname = something.Surname
            }
```



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answered Sep 18, 2008 at 0:05



[Tim Jarvis](#)

18.8k ● 10 ● 59 ● 95

1 You probably mean for lists of anonymous objects (in lieu of "projected classes"). :)

– [Jon Limjap](#) Sep 18, 2008 at 0:12



Adding to Nescio's thoughts - I'd suggest in code reviews actively hunting down expensive transparent operations in property accessors e.g. DB round tripping.

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answered Sep 18, 2008 at 0:14



[stephbu](#)

5,082 ● 28 ● 42





0

Object Initializers help to reduce coding complexity in that you don't need to create a half dozen different constructors in order to provide initial values for properties. Anything that reduces redundant code is a positive, in my book.



I believe the primary reason the feature was added to the language is to support [anonymous types](#) for LINQ.



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edited Sep 18, 2008 at 0:17

answered Sep 18, 2008 at 0:12

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**Jeromy Irvine**

11.8k ● 3 ● 41 ● 53



0

If you want to enforce the use of a constructor, you could set your object's default parameterless constructor to private, and leave public only some enforced constructors:



```
public class SomeObject
{
    private SomeObject()
    {}

    public SomeObject(string someString) //enforced constructor
    {}

    public string MyProperty { get; set; }
}
```

Using the above definition, this throws an error:

```
var myObject = new SomeObject { MyProperty = "foo" } //no method accepts zero arguments for constructor
```

Of course this can't be done for all cases. Serialization, for example, requires that you have a non-private default constructor.

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answered Sep 18, 2008 at 0:27



**Jon Limjap**

95.3k ● 15 ● 103 ● 153



0

I for one am not happy with them. I don't think they have a place in the constructor, or MS should go back and refactor them to allow you to use them in a private fashion. If I construct an object I want to pass in some PRIVATE data. I want it set from the outside world once and that's it. With Object Initializers you allow the values passed into the constructor to be modifiable.



Maybe in the future they will change this.



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answered Sep 19, 2008 at 20:52

