

# System.Collections.IHashCodeProvider Interface

```
[ILAsm]  
.class interface public abstract IHashCodeProvider  
  
[C#]  
public interface IHashCodeProvider
```

## Assembly Info:

- *Name:* mscorlib
- *Public Key:* [00 00 00 00 00 00 00 00 04 00 00 00 00 00 00]
- *Version:* 2.0.x.x
- *Attributes:*
  - CLSCompliantAttribute(true)

## Summary

Implemented by classes that support custom hash functions for instances of the class.

**Library:** BCL

## Description

[*Note:* System.Collections.IHashCodeProvider contains the System.Collections.IHashCodeProvider.GetHashCode method. The consumer of an object should call this method to obtain a hash code for the object using a custom hash function.]

# IHashCodeProvider.GetHashCode(System.Object) Method

```
[ILAsm]  
.method public hidebysig virtual abstract int32 GetHashCode(object  
obj)  
  
[C#]  
int GetHashCode(object obj)
```

## Summary

Generates a hash code for the specified `System.Object`.

## Parameters

Parameter	Description
<i>obj</i>	The <code>System.Object</code> for which a hash code is to be generated.

## Return Value

A `System.Int32` containing the hash code for the specified `System.Object`.

## Behaviors

If *obj* is null, it is required that a call to `System.Collections.IHashCodeProvider.GetHashCode` throw `System.ArgumentNullException`.

## How and When to Override

Implement this method to generate a better hash table distribution than the default method provided by the type of the `System.Object` for which the hash code is being generated.

## Usage

The value returned by this method should not be persisted past the lifetime of the application that created the value. The first reason is that the hash function of a class might be altered to generate a better distribution, rendering any values from the old hash function useless. The second reason is that the default

implementation of this class does not guarantee that the same value will be returned by different instances.

## Exceptions

Exception	Condition
<b>System.ArgumentNullException</b>	<i>obj</i> is null.