

# 1 System.Collections.IHashCodeProvider 2 Interface

3  
4

```
5 [ILASM]  
6 .class interface public abstract IHashCodeProvider  
7  
8 [C#]  
9 public interface IHashCodeProvider
```

## 9 Assembly Info:

- 10 • *Name:* mscorlib
- 11 • *Public Key:* [00 00 00 00 00 00 00 00 04 00 00 00 00 00 00]
- 12 • *Version:* 1.0.x.x
- 13 • *Attributes:*
  - 14 ○ CLSCompliantAttribute(true)

## 15 Summary

16

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

19 **Library:** BCL

20

## 21 Description

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

26

# 1 IHashCodeProvider.GetHashCode(System. 2 Object) Method

```
3 [ILASM]  
4 .method public hidebysig virtual abstract int32  
5 GetHashCode(object obj)  
6  
7 [C#]  
8 int GetHashCode(object obj)
```

## 8 Summary

9 Generates a hash code for the specified **System.Object**.

## 10 Parameters

11  
12

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

13  
14  
15

## 14 Return Value

16 A **System.Int32** containing the hash code for the specified  
17 **System.Object**.

## 18 Behaviors

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

## 22 How and When to Override

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

## 26 Usage

27 The value returned by this method should not be persisted past the  
28 lifetime of the application that created the value. The first reason is  
29 that the hash function of a class may be altered to generate a better  
30 distribution, rendering any values from the old hash function useless.  
31 The second reason is that the default implementation of this class does  
32 not guarantee that the same value will be returned by different  
33 instances.

1 **Exceptions**

2

3

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

4

5