.NET Framework Class Library

**IEnumerable(T) Interface**

Exposes the enumerator, which supports a simple iteration over a collection of a specified type.

**Namespace:** [System.Collections.Generic](http://msdn.microsoft.com/en-us/library/system.collections.generic.aspx)  
**Assembly:** mscorlib (in mscorlib.dll)

Description: http://i.msdn.microsoft.com/Global/Images/clear.gifSyntax

Visual Basic

Public Interface IEnumerable(Of Out T) \_

Inherits IEnumerable

C#

public interface IEnumerable<out T> : IEnumerable

Visual C++

generic<typename T>

public interface class IEnumerable : IEnumerable

F#

type IEnumerable<'T> =

interface

interface IEnumerable

end

**Type Parameters**

**out** **Out** **out** **out** *T*

The type of objects to enumerate.

This type parameter is covariant. That is, you can use either the type you specified or any type that is more derived. For more information about covariance and contravariance, see [Covariance and Contravariance in Generics](http://msdn.microsoft.com/en-us/library/dd799517.aspx).

The **IEnumerable<(Of <(T>)>)** type exposes the following members.

Description: http://i.msdn.microsoft.com/Global/Images/clear.gifMethods

|  |  |  |
| --- | --- | --- |
|  | **Name** | **Description** |
| Description: Public methodDescription: Supported by the XNA FrameworkDescription: Supported by Portable Class Library | [GetEnumerator()()()](http://msdn.microsoft.com/en-us/library/system.collections.ienumerable.getenumerator.aspx) | Returns an enumerator that iterates through a collection. (Inherited from [IEnumerable](http://msdn.microsoft.com/en-us/library/system.collections.ienumerable.aspx).) |
| Description: Public methodDescription: Supported by the XNA FrameworkDescription: Supported by Portable Class Library | [GetEnumerator()()()](http://msdn.microsoft.com/en-us/library/s793z9y2.aspx) | Returns an enumerator that iterates through the collection. |

Remarks

Many interfaces and classes in the [System.Collections.Generic](http://msdn.microsoft.com/en-us/library/system.collections.generic.aspx) namespace inherit the **IEnumerable<(Of <(T>)>)** interface to implement enumerators. For an example, see the [ICollection<(Of <(T>)>)](http://msdn.microsoft.com/en-us/library/92t2ye13.aspx) interface.