ICollection<T>

**Definition:**

This defines methods to manipulate generic collections.

public interface ICollection<T> : IEnumerable<T>, IEnumerable

The ICollection<T> interface is the base interface for classes in the **System.Collections.Generic** namespace.

The ICollection<T> interface **extends**

1. IEnumerable<T>
2. IDictionary<TKey, TValue>

Implementation is a collection of key/value pairs, like the Dictionary<TKey, TValue> class.

1. IList<T>

Implementation is a collection of values, and its members can be accessed by index, like the List<T> class.

If neither the IDictionary<TKey, TValue> interface nor the IList<T> interface meet the requirements of the required collection, derive the new collection class from the ICollection<T> interface instead for more flexibility.

**Type Parameters**

*T*

The type of the elements in the collection

**Properties**

|  |  |  |
| --- | --- | --- |
| System_CAPS_pubproperty | [Count](https://msdn.microsoft.com/en-us/library/5s3kzhec(v=vs.110).aspx) | Gets the number of elements contained in the ICollection<T>. |
| System_CAPS_pubproperty | [IsReadOnly](https://msdn.microsoft.com/en-us/library/0cfatk9t(v=vs.110).aspx) | Gets a value indicating whether the ICollection<T> is read-only. |

**Methods**

|  |  |  |
| --- | --- | --- |
| System_CAPS_pubmethod | [Add(T)](https://msdn.microsoft.com/en-us/library/63ywd54z(v=vs.110).aspx) | Adds an item to the ICollection<T>. |
| System_CAPS_pubmethod | [Clear()](https://msdn.microsoft.com/en-us/library/5axy4fbh(v=vs.110).aspx) | Removes all items from the ICollection<T>. |
| System_CAPS_pubmethod | [Contains(T)](https://msdn.microsoft.com/en-us/library/k5cf1d56(v=vs.110).aspx) | Determines whether the ICollection<T> contains a specific value. |
| System_CAPS_pubmethod | [CopyTo(T[], Int32)](https://msdn.microsoft.com/en-us/library/0efx51xw(v=vs.110).aspx) | Copies the elements of the ICollection<T> to an [Array](https://msdn.microsoft.com/en-us/library/system.array(v=vs.110).aspx), starting at a particular [Array](https://msdn.microsoft.com/en-us/library/system.array(v=vs.110).aspx) index. |
| System_CAPS_pubmethod | [GetEnumerator()](https://msdn.microsoft.com/en-us/library/s793z9y2(v=vs.110).aspx) | Returns an enumerator that iterates through the collection.(Inherited from [IEnumerable<T>](https://msdn.microsoft.com/en-us/library/9eekhta0(v=vs.110).aspx).) |
| System_CAPS_pubmethod | [Remove(T)](https://msdn.microsoft.com/en-us/library/bye7h94w(v=vs.110).aspx) | Removes the first occurrence of a specific object from the ICollection<T>. |