System.Collections.IDictionary Interface

[ILAsm]
```
.class interface public abstract IDictionary implements
System.Collections.ICollection, System.Collections.IEnumerable
```

[C#]
```
public interface IDictionary: ICollection, IEnumerable
```

Assembly Info:

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

Type Attributes:

- DefaultMemberAttribute("Item") [*Note:* This attribute requires the RuntimeInfrastructure library.]

Implements:

- **System.Collections.ICollection**
- **System.Collections.IEnumerable**

Summary

Implemented by classes that support collections of associated keys and values (i.e. dictionaries).

Library: BCL

Description

[*Note:* Each key-value pair must have a unique non-null key, but the value of an association can be any object reference, including a null reference. The `System.Collections.IDictionary` interface allows the contained keys and values to be enumerated, but it does not imply any particular sort order.

`System.Collections.IDictionary` implementations fall into three categories: read-only, fixed-size, variable-size. A read-only implementation cannot be modified. A fixed-size implementation does not allow the addition or removal of elements, but it allows the modification of existing elements. A variable-size implementation allows the addition, removal and modification of elements.

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IDictionary.Add(System.Object, System.Object) Method

```
[ILAsm]
.method public hidebysig virtual abstract void Add(object key, object
value)

[C#]
void Add(object key, object value)
```

Summary

Adds an entry with the provided key and value to the current instance.

Parameters

Parameter	Description
key	The `System.Object` to use as the key of the entry to add.
value	The `System.Object` to use as the value of the entry to add.

Description

If the specified key already exists in the current instance, this method throws a `System.ArgumentException` exception but does not modify the associated value.

Behaviors

As described above.

Exceptions

Exception	Condition
System.ArgumentNullException	*key* is `null`.
System.ArgumentException	An entry with the same key already exists in the current instance.
System.NotSupportedException	The current instance is read-only or has a fixed size.

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IDictionary.Clear() Method

[ILAsm]
```
.method public hidebysig virtual abstract void Clear()
```

[C#]
```
void Clear()
```

Summary

Removes all key and value pairs from the current instance.

Behaviors

As described above.

Exceptions

Exception	Condition
System.NotSupportedException	The `System.Collections.IDictionary` is read-only.

IDictionary.Contains(System.Object) Method

```
[ILAsm]
.method public hidebysig virtual abstract bool Contains(object key)

[C#]
bool Contains(object key)
```

Summary

Determines whether the current instance contains an entry with the specified key.

Parameters

Parameter	Description
key	The key to locate in the `System.Collections.IDictionary`.

Return Value

`true` if the `System.Collections.IDictionary` contains an entry with the key; otherwise, `false`.

Behaviors

As described above.

Exceptions

Exception	Condition
System.ArgumentNullException	*key* is `null`.

IDictionary.GetEnumerator() Method

[ILAsm]
```
.method public hidebysig virtual abstract class
System.Collections.IDictionaryEnumerator GetEnumerator()
```

[C#]
```
IDictionaryEnumerator GetEnumerator()
```

Summary

Returns a `System.Collections.IDictionaryEnumerator` for the current instance.

Return Value

A `System.Collections.IDictionaryEnumerator` for the current instance.

Description

[*Note:* For detailed information regarding the use of an enumerator, see `System.Collections.IEnumerator`.]

Behaviors

As described above.

IDictionary.Remove(System.Object) Method

```
[ILAsm]
.method public hidebysig virtual abstract void Remove(object key)

[C#]
void Remove(object key)
```

Summary

Removes the entry with the specified key from the current instance.

Parameters

Parameter	Description
key	The key of the entry to remove.

Behaviors

If *key* is not found in the current instance, no exception is thrown and the current instance remains unchanged.

Exceptions

Exception	Condition
System.ArgumentNullException	*key* is `null`.
System.NotSupportedException	The current instance is read-only or has a fixed size.

IDictionary.IsFixedSize Property

[ILAsm]
```
.property bool IsFixedSize { public hidebysig virtual abstract specialname bool get_IsFixedSize() }
```

[C#]
```
bool IsFixedSize { get; }
```

Summary

Gets a value indicating whether the current instance has a fixed size.

Property Value

`true` if the current instance has a fixed size; otherwise, `false`.

Description

This property is read-only.

[*Note:* A collection with a fixed size does not allow the addition or removal of elements, but does allow the modification of existing elements.]

Behaviors

As described above.

Default

The default of this property is `false`.

How and When to Override

Override this method, setting the value as `true`, to prevent the addition and removal of the elements in the current instance.

IDictionary.IsReadOnly Property

[ILAsm]
```
.property bool IsReadOnly { public hidebysig virtual abstract specialname bool get_IsReadOnly() }
```

[C#]
```
bool IsReadOnly { get; }
```

Summary

Gets a value indicating whether the current instance is read-only.

Property Value

`true` if the current instance is read-only; otherwise, `false`.

Description

This property is read-only.

[*Note:* A collection that is read-only does not allow the addition, removal, or modification of elements.]

Behaviors

As described above.

Default

The default of this property is `false`.

How and When to Override

Override this method, setting the value as `true`, to prevent the addition, removal, and modification of the elements in the current instance.

IDictionary.Item Property

```
[ILAsm]
.property object Item[object key] { public hidebysig virtual abstract
specialname object get_Item(object key) public hidebysig virtual abstract
specialname void set_Item(object key, object value) }

[C#]
object this[object key] { get; set; }
```

Summary

Gets or sets the element in the current instance that is associated with the specified key.

Parameters

Parameter	Description
key	The key of the element to get or set.

Property Value

The element with the specified key.

Description

[*Note:* This property provides the ability to access a specific element in the collection by using the following syntax: `myCollection[index]`.]

Behaviors

When setting this property, if the specified key already exists in the current instance, the value is required to be replaced; otherwise, a new element is required to be created.

Exceptions

Exception	Condition
System.ArgumentNullException	*key* is `null`.
System.NotSupportedException	The property is set and the current instance is read-only.

	The property is set, *key* does not exist in the collection, and the current instance has a fixed size.

IDictionary.Keys Property

```
[ILAsm]
.property class System.Collections.ICollection Keys { public hidebysig
virtual abstract specialname class System.Collections.ICollection
get_Keys() }

[C#]
ICollection Keys { get; }
```

Summary

Gets a `System.Collections.ICollection` containing the keys of the current instance.

Property Value

A `System.Collections.ICollection` containing the keys of the current instance.

Description

This property is read-only.

Behaviors

As described above.

IDictionary.Values Property

[ILAsm]
```
.property class System.Collections.ICollection Values { public hidebysig
virtual abstract specialname class System.Collections.ICollection
get_Values() }
```

[C#]
```
ICollection Values { get; }
```

Summary

Gets a `System.Collections.ICollection` containing the values in the current instance.

Property Value

A `System.Collections.ICollection` containing the values in the current instance.

Description

This property is read-only.

Behaviors

As described above.