

# System.Collections.Specialized.NameValueCollection Class

```
[ILAsm]
.class public serializable NameValueCollection extends System.Object
implements System.Collections.ICollection,
System.Collections.IEnumerable

[C#]
public class NameValueCollection: ICollection, IEnumerable
```

## Assembly Info:

- *Name:* System
- *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)

## Type Attributes:

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

## Implements:

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

## Summary

Represents a collection of associated `System.String` keys and `System.String` values.

## Inherits From: System.Object

**Library:** Networking

**Thread Safety:** All public static members of this type are safe for multithreaded operations. No instance members are guaranteed to be thread safe.

## Description

This class can be used for headers, query strings and form data. Each key in the collection is associated with one or more values. Multiple values for a particular key are contained in a single `System.String`.

The capacity is the number of key-and-value pairs that the

`System.Collections.Specialized.NameValueCollection` can contain. The default initial capacity is zero. The capacity is automatically increased as required.

The hash code provider dispenses hash codes for keys in the `System.Collections.Specialized.NameValueCollection`.

The comparer determines whether two keys are equal.

# NameValueCollection(System.Int32, System.Collections.IHashCodeProvider, System.Collections.IComparer) Constructor

```
[ILAsm]  
public rtspecialname specialname instance void .ctor(int32 capacity,  
class System.Collections.IHashCodeProvider hashProvider, class  
System.Collections.IComparer comparer)
```

```
[C#]  
public NameValueCollection(int capacity, IHashCodeProvider  
hashProvider, IComparer comparer)
```

## Summary

Constructs and initializes new instance of the `System.Collections.Specialized.NameValueCollection` class with the specified initial capacity, hash code provider, and comparer.

## Parameters

Parameter	Description
<i>capacity</i>	A <code>System.Int32</code> containing the initial number of entries that the <code>System.Collections.Specialized.NameValueCollection</code> can contain.
<i>hashProvider</i>	The <code>System.Collections.IHashCodeProvider</code> that will supply the hash codes for all keys in the new instance.
<i>comparer</i>	The <code>System.Collections.IComparer</code> to use to determine whether two keys in the new instance are equal.

## Exceptions

Exception	Condition
<code>System.ArgumentOutOfRangeException</code>	<i>capacity</i> < 0.

# NameValueCollection(System.Int32, System.Collections.Specialized.NameValueCollection) Constructor

```
[ILAsm]  
public rtspecialname specialname instance void .ctor(int32 capacity,  
class System.Collections.Specialized.NameValueCollection col)
```

```
[C#]  
public NameValueCollection(int capacity, NameValueCollection col)
```

## Summary

Constructs and initializes new instance of the `System.Collections.Specialized.NameValueCollection` class that contains the same values as the specified `System.Collections.Specialized.NameValueCollection` and either the specified capacity or the capacity of the specified collection, whichever is greater.

## Parameters

Parameter	Description
<i>capacity</i>	A <code>System.Int32</code> containing the initial number of entries that the new instance can contain.
<i>col</i>	The <code>System.Collections.Specialized.NameValueCollection</code> used to initialize the new instance.

## Description

The new instance is initialized with the default `System.Collections.IHashCodeProvider` and `System.Collections.IComparer`.

## Exceptions

Exception	Condition
<code>System.ArgumentNullException</code>	<i>col</i> is null.
<code>System.ArgumentOutOfRangeException</code>	<i>capacity</i> is < 0.

# NameValueCollection(System.Int32) Constructor

```
[ILAsm]  
public rtspecialname specialname instance void .ctor(int32 capacity)  
  
[C#]  
public NameValueCollection(int capacity)
```

## Summary

Constructs and initializes a new instance of the `System.Collections.Specialized.NameValueCollection` class with the specified initial capacity.

## Parameters

Parameter	Description
<i>capacity</i>	A <code>System.Int32</code> containing the initial number of entries that the new instance can contain.

## Description

The new instance is initialized with the default `System.Collections.IHashCodeProvider` and `System.Collections.IComparer`.

## Exceptions

Exception	Condition
<code>System.ArgumentOutOfRangeException</code>	<i>capacity</i> < 0.

# NameValueCollection(System.Collections.IHashCodeProvider, System.Collections.IComparer) Constructor

```
[ILAsm]
public rtspecialname specialname instance void .ctor(class
System.Collections.IHashCodeProvider hashProvider, class
System.Collections.IComparer comparer)

[C#]
public NameValueCollection(IHashCodeProvider hashProvider, IComparer
comparer)
```

## Summary

Constructs and initializes a new instance of the `System.Collections.Specialized.NameValueCollection` class with the specified `System.Collections.IHashCodeProvider` and the specified `System.Collections.IComparer`.

## Parameters

Parameter	Description
<i>hashProvider</i>	The <code>System.Collections.IHashCodeProvider</code> that supplies the hash codes for all keys in the new instance; or, null to use the default hash code provider.
<i>comparer</i>	The <code>System.Collections.IComparer</code> to use to determine whether two keys are equal. Specify null to use the default comparer.

## Description

The new instance is initialized with the default capacity of zero.

# NameValueCollection(System.Collections.Specialized.NameValueCollection) Constructor

```
[ILAsm]  
public rtspecialname specialname instance void .ctor(class  
System.Collections.Specialized.NameValueCollection col)
```

```
[C#]  
public NameValueCollection(NameValueCollection col)
```

## Summary

Constructs and initializes a new instance of the `System.Collections.Specialized.NameValueCollection` class using the values of the specified `System.Collections.Specialized.NameValueCollection`.

## Parameters

Parameter	Description
<i>col</i>	The <code>System.Collections.Specialized.NameValueCollection</code> used to initialize the new instance.

## Description

The capacity, values, and order of values of the new instance are equal to the capacity and values of *col*. The `System.Collections.IHashCodeProvider` and `System.Collections.IComparer` of the new instance are the default instances.

The elements of the new `System.Collections.Specialized.NameValueCollection` are sorted in the same order as the source `System.Collections.Specialized.NameValueCollection`.

## Exceptions

Exception	Condition
<code>System.ArgumentNullException</code>	<i>col</i> is null.

# NameValueCollection() Constructor

```
[ILAsm]  
public rtspecialname specialname instance void .ctor()  
  
[C#]  
public NameValueCollection()
```

## Summary

Constructs and initializes a new instance of the `System.Collections.Specialized.NameValueCollection` class.

## Description

The new instance is initialized with the default initial capacity, `System.Collections.IHashCodeProvider`, and `System.Collections.IComparer`.



# NameValueCollection.Add(System.String, System.String) Method

```
[ILAsm]  
.method public hidebysig virtual void Add(string name, string value)  
  
[C#]  
public virtual void Add(string name, string value)
```

## Summary

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

## Parameters

Parameter	Description
<i>name</i>	A System.String that represents the key of the entry to add. Can be null.
<i>value</i>	A System.String that represents the value of the entry to add. Can be null.

## Behaviors

As described above.

## Default

If the specified key already exists in the current instance, the specified value is added to the existing comma-separated list of values associated with the same key.

Attempting to assign the same value to an existing key adds a new value to that key, thus providing two (or more) copies of the same value associated with the key.

## How and When to Override

Override this method to customize the default behavior in a type derived from the current type.

## Usage

Use this method to add an entry to the current instance.

## Exceptions

Exception	Condition
<b>System.NotSupportedException</b>	The current instance is read-only.

# NameValueCollection.Add(System.Collections.Specialized.NameValueCollection) Method

```
[ILAsm]  
.method public hidebysig instance void Add(class  
System.Collections.Specialized.NameValueCollection c)  
  
[C#]  
public void Add(NameValueCollection c)
```

## Summary

Copies the entries from the specified `System.Collections.Specialized.NameValueCollection` to the current instance.

## Parameters

Parameter	Description
<code>c</code>	The <code>System.Collections.Specialized.NameValueCollection</code> to copy to the current instance.

## Description

If a key in `c` already exists in the target `System.Collections.Specialized.NameValueCollection` instance, the associated value in `c` is added to the existing comma-separated list of values associated with the same key in the target `System.Collections.Specialized.NameValueCollection` instance.

## Exceptions

Exception	Condition
<code>System.NotSupportedException</code>	The current instance is read-only.
<code>System.ArgumentNullException</code>	<code>c</code> is null.

# NameValueCollection.Clear() Method

```
[ILAsm]  
.method public hidebysig instance void Clear()  
  
[C#]  
public void Clear()
```

## Summary

Invalidates the cached arrays and removes all entries from the current instance.

## Description

The value of each key and value in the current instance is set to `null`.

If the current instance is empty, it remains unchanged and no exception is thrown.

## Exceptions

Exception	Condition
<b>System.NotSupportedException</b>	The current instance is read-only.

# NameValueCollection.CopyTo(System.Array, System.Int32) Method

```
[ILAsm]  
.method public hidebysig instance void CopyTo(class System.Array  
dest, int32 index)
```

```
[C#]  
public void CopyTo(Array dest, int index)
```

## Summary

Copies the elements from the current instance to the specified `System.Array`, starting at the specified index in that array.

## Parameters

Parameter	Description
<i>dest</i>	A one-dimensional, zero-based <code>System.Array</code> that is the destination of the elements copied from the current instance.
<i>index</i>	A <code>System.Int32</code> containing the zero-based index in <i>dest</i> at which copying begins.

## Description

This method uses `System.Array.Copy` to copy the elements.

[*Note:* This method is implemented to support the `System.Collections.ICollection` interface.]

## Exceptions

Exception	Condition
<b>System.ArgumentNullException</b>	<i>dest</i> is null.
<b>System.ArgumentOutOfRangeException</b>	<i>index</i> < 0.
<b>System.ArgumentException</b>	<i>dest</i> has more than one dimension. -or- <i>index</i> >= <i>dest.Length</i> .

	<p>-or-</p> <p>The number of elements in the current instance is greater than the available space from <i>index</i> to the end of the destination <i>dest</i>.</p>
<b>System.InvalidCastException</b>	<p>At least one element in the current instance is not assignment-compatible with the type of <i>dest</i>.</p>

# NameValueCollection.Get(System.String) Method

```
[ILAsm]  
.method public hidebysig virtual string Get(string name)  
  
[C#]  
public virtual string Get(string name)
```

## Summary

Gets the values associated with the specified key from the current instance combined into one comma-separated list.

## Parameters

Parameter	Description
<i>name</i>	A <code>System.String</code> that specified the key of the entry that contains the values to get.

## Return Value

A `System.String` that contains a comma-separated list of the values associated with the specified key from the current instance, if found; otherwise, `null`.

## Behaviors

As described above.

## Default

If *name* is `null`, the values associated with the null key, if any, are returned; otherwise, `null` is returned.

# NameValueCollection.Get(System.Int32) Method

```
[ILAsm]  
.method public hidebysig virtual string Get(int32 index)  
  
[C#]  
public virtual string Get(int index)
```

## Summary

Returns the values at the specified index of the current instance.

## Parameters

Parameter	Description
<i>index</i>	A <code>System.Int32</code> that specifies the zero-based index of the entry that contains the values to get from the current instance.

## Return Value

A `System.String` that contains a comma-separated list of the values at the specified index of the current instance, if found; otherwise, `null`.

## Behaviors

As described above.

## Exceptions

Exception	Condition
<b>System.ArgumentOutOfRangeException</b>	<i>index</i> is outside the valid range of indices for the current instance.



# NameValueCollection.GetEnumerator() Method

```
[ILAsm]  
.method public hidebysig virtual class  
System.Collections.IEnumerator GetEnumerator()  
  
[C#]  
public virtual IEnumerator GetEnumerator()
```

## Summary

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

## Return Value

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

## Description

If the current instance is modified while an enumeration is in progress, a call to `System.Collections.IEnumerator.MoveNext` or `System.Collections.IEnumerator.Reset` throws `System.InvalidOperationException`.

[*Note:* For detailed information regarding the use of an enumerator, see `System.Collections.IEnumerator`. This property is implemented to support the `System.Collections.IEnumerable` interface.]

# NameValueCollection.GetKey(System.Int32) Method

```
[ILAsm]  
.method public hidebysig virtual string GetKey(int32 index)  
  
[C#]  
public virtual string GetKey(int index)
```

## Summary

Returns the key at the specified index of the current instance.

## Parameters

Parameter	Description
<i>index</i>	A System.Int32 that specifies the zero-based index of the key to get from the current instance.

## Return Value

A System.String that contains the key at the specified index of the current instance, if found; otherwise, null.

## Behaviors

As described above.

## Exceptions

Exception	Condition
<b>System.ArgumentOutOfRangeException</b>	<i>index</i> is outside the valid range of indices for the current instance.

# NameValueCollection.GetValues(System.String) Method

```
[ILAsm]  
.method public hidebysig virtual string[] GetValues(string name)  
  
[C#]  
public virtual string[] GetValues(string name)
```

## Summary

Gets the values associated with the specified key from the current instance.

## Parameters

Parameter	Description
<i>name</i>	A System.String that specifies the key of the entry that contains the values to get.

## Return Value

A System.String array containing the values associated with *name* from the current instance, if found; otherwise, null.

## Behaviors

As described above.

## Default

If *name* is null, no exception is thrown and null is returned.

# NameValueCollection.GetValues(System.Int32) Method

```
[ILAsm]  
.method public hidebysig virtual string[] GetValues(int32 index)  
  
[C#]  
public virtual string[] GetValues(int index)
```

## Summary

Returns an array that contains the values at the specified index of the current instance.

## Parameters

Parameter	Description
<i>index</i>	A System.Int32 that specifies the zero-based index of the entry that contains the values to get from the current instance.

## Return Value

A System.String array containing the values at the specified index of the current instance, if found; otherwise, null.

## Behaviors

As described above.

## Exceptions

Exception	Condition
<b>System.ArgumentOutOfRangeException</b>	<i>index</i> is outside the valid range of indices for the current instance.

# NameValueCollection.HasKeys() Method

```
[ILAsm]  
.method public hidebysig instance bool HasKeys()  
  
[C#]  
public bool HasKeys()
```

## Summary

Gets a `System.Boolean` value indicating whether the current instance contains keys that are not null.

## Return Value

true if the current instance contains keys that are not null; otherwise, false.

# NameValueCollection.InvalidateCachedArrays() Method

```
[ILAsm]  
.method family hidebysig instance void InvalidateCachedArrays()  
  
[C#]  
protected void InvalidateCachedArrays()
```

## Summary

Resets the cached arrays of the current instance to null.

## Description

[*Note:* The array returned by `System.Collections.Specialized.NameValueCollection.AllKeys` is cached for better performance and is automatically refreshed when the collection changes. A derived class can invalidate the cached version by calling `System.Collections.Specialized.NameValueCollection.InvalidateCachedArrays`, thereby forcing the arrays to be recreated.]

# NameValueCollection.Remove(System.String) Method

```
[ILAsm]  
.method public hidebysig virtual void Remove(string name)  
  
[C#]  
public virtual void Remove(string name)
```

## Summary

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

## Parameters

Parameter	Description
<i>name</i>	A System.String containing the key of the entry to remove from the current instance.

## Behaviors

If *name* is found, the key *name* and its associated value are set to null. Removing an element does not alter the capacity of a System.Collections.Specialized.NameValueCollection.

## Default

This method uses the System.Object.Equals implementation of *name* to locate *name* in the current instance. If *name* is not found in the current instance or is null, no exception is thrown and the current instance is unchanged.

## Exceptions

Exception	Condition
System.NotSupportedException	The current instance is read-only.

# NameValueCollection.Set(System.String, System.String) Method

```
[ILAsm]  
.method public hidebysig virtual void Set(string name, string value)  
  
[C#]  
public virtual void Set(string name, string value)
```

## Summary

Sets the value of the specified entry in the current instance to the specified value.

## Parameters

Parameter	Description
<i>name</i>	A System.String containing the key of the entry to add the new value to.
<i>value</i>	A System.String containing the new value to add to the specified entry.

## Behaviors

If the specified key already exists in the current instance, this method overwrites the existing values with the specified value. (If the existing value contains a string of multiple comma-delimited values, the complete string is replaced with a single instance of value.) If the specified key does not exist in the current instance, this method creates a new entry using the specified key and the specified value.

## Usage

Use the System.Collections.Specialized.NameValueCollection.Add method to add the new value to the existing list of values.

## Exceptions



Exception	Condition
<b>System.NotSupportedException</b>	The current instance is read-only.

# NameValueCollection.AllKeys Property

```
[ILAsm]  
.property string[] AllKeys { public hidebysig virtual specialname  
string[] get_AllKeys() }
```

```
[C#]  
public virtual string[] AllKeys { get; }
```

## Summary

Gets all the keys in the current instance.

## Property Value

A `System.String` array containing all the keys of the current instance. If the current instance is empty, the value of this property is an empty array.

## Behaviors

This property is read-only.

## Usage

The array returned by `System.Collections.Specialized.NameValueCollection.AllKeys` is cached for better performance and is automatically refreshed when the collection changes. A derived class can invalidate the cached version by calling `System.Collections.Specialized.NameValueCollection.InvalidateCachedArrays`, thereby forcing the array to be refreshed.

# NameValueCollection.Count Property

```
[ILAsm]  
.property int32 Count { public hidebysig virtual specialname int32  
get_Count() }
```

```
[C#]  
public virtual int Count { get; }
```

## Summary

Gets the number of elements contained in the current instance.

## Property Value

A `System.Int32` that indicates the number of elements contained in the current instance.

## Description

This property is read-only.

[*Note:* This property is implemented to support the `System.Collections.ICollection` interface.

]

# NameValueCollection.IsReadOnly Property

```
[ILAsm]
.property bool IsReadOnly { family hidebysig specialname bool
get_IsReadOnly() family hidebysig specialname void
set_IsReadOnly(bool value) }

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

## Summary

Gets or sets 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-write.

# NameValueCollection.IsSynchronized Property

```
[ILAsm]  
.property bool ICollection.IsSynchronized { public hidebysig virtual  
abstract specialname bool get_ICollection.IsSynchronized() }  
  
[C#]  
bool ICollection.IsSynchronized { get; }
```

## Summary

Implemented to support System.Collections.ICollection.

[*Note:* For more information, see  
System.Collections.ICollection.IsSynchronized.]

# NameValueCollection.Item Property

```
[ILAsm]
.property string Item[string name] { public hidebysig specialname
instance string get_Item(string name) public hidebysig specialname
instance void set_Item(string name, string value) }

[C#]
public string this[string name] { get; set; }
```

## Summary

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

## Parameters

Parameter	Description
<i>name</i>	A System.String containing the key of the entry to locate.

## Property Value

A System.String that contains the comma-separated list of values associated with the specified key. If *name* is not contained in the current instance, attempting to get it returns null, and attempting to set it creates a new entry using *name*.

## Description

If the specified key already exists in the collection, setting this property overwrites the existing values with the specified value. (If the existing value contains a string of multiple comma-delimited values, the complete string is replaced with a single instance of the specified value.) If the specified key does not exist in the collection, setting this property creates a new entry using the specified key and the specified value.

[*Note:* This property provides the ability to access a specific element in the current instance using the following notation: myCollection[key].

To add the new value to the existing list of values, use the System.Collections.Specialized.NameValueCollection.Add method.

]

## Exceptions

Exception	Condition
<b>System.NotSupportedException</b>	The property is being set and the current instance is read-only.

# NameValueCollection.Item Property

```
[ILAsm]  
.property string Item[int32 index] { public hidebysig specialname  
instance string get_Item(int32 index) }
```

```
[C#]  
public string this[int index] { get; }
```

## Summary

Gets the value in the current instance that is associated with the specified index.

## Parameters

Parameter	Description
<i>index</i>	A System.Int32 that specifies the zero-based index of the entry to locate in the current instance.

## Property Value

A System.String that contains the comma-separated list of values at the specified index of the current instance.

## Description

This property is read-only.

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

This property cannot be set. To set the value at a specified index, use Item[GetKey(index)].

]

## Exceptions

Exception	Condition
<b>System.ArgumentOutOfRangeException</b>	<i>index</i> is outside the valid range of indices for the current instance.
<b>System.NotSupportedException</b>	The property is being set and the current instance is read-only.





## NameValueCollection.SyncRoot Property

```
[ILAsm]  
.property object ICollection.SyncRoot { public hidebysig virtual  
abstract specialname object get_ICollection.SyncRoot() }
```

```
[C#]  
object ICollection.SyncRoot { get; }
```

### Summary

Implemented to support System.Collections.ICollection.

[*Note:* For more information, see System.Collections.ICollection.SyncRoot.]