**Properties**

|  |  |
| --- | --- |
| [IsFixedSize](https://docs.microsoft.com/en-us/dotnet/api/system.array.isfixedsize?view=net-6.0#system-array-isfixedsize) | Gets a value indicating whether the [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) has a fixed size. |
| [IsReadOnly](https://docs.microsoft.com/en-us/dotnet/api/system.array.isreadonly?view=net-6.0#system-array-isreadonly) | Gets a value indicating whether the [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) is read-only. |
| [IsSynchronized](https://docs.microsoft.com/en-us/dotnet/api/system.array.issynchronized?view=net-6.0#system-array-issynchronized) | Gets a value indicating whether access to the [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) is synchronized (thread safe). |
| [Length](https://docs.microsoft.com/en-us/dotnet/api/system.array.length?view=net-6.0#system-array-length) | Gets the total number of elements in all the dimensions of the [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0). |
| [LongLength](https://docs.microsoft.com/en-us/dotnet/api/system.array.longlength?view=net-6.0#system-array-longlength) | Gets a 64-bit integer that represents the total number of elements in all the dimensions of the [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0). |
| [MaxLength](https://docs.microsoft.com/en-us/dotnet/api/system.array.maxlength?view=net-6.0#system-array-maxlength) | Gets the maximum number of elements that may be contained in an array. |
| [Rank](https://docs.microsoft.com/en-us/dotnet/api/system.array.rank?view=net-6.0#system-array-rank) | Gets the rank (number of dimensions) of the [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0). For example, a one-dimensional array returns 1, a two-dimensional array returns 2, and so on. |
| [SyncRoot](https://docs.microsoft.com/en-us/dotnet/api/system.array.syncroot?view=net-6.0#system-array-syncroot) | Gets an object that can be used to synchronize access to the [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0). |

**Methods**

|  |  |
| --- | --- |
| [AsReadOnly<T>(T[])](https://docs.microsoft.com/en-us/dotnet/api/system.array.asreadonly?view=net-6.0#system-array-asreadonly-1(-0())) | Returns a read-only wrapper for the specified array. |
| [BinarySearch(Array, Int32, Int32, Object)](https://docs.microsoft.com/en-us/dotnet/api/system.array.binarysearch?view=net-6.0#system-array-binarysearch(system-array-system-int32-system-int32-system-object)) | Searches a range of elements in a one-dimensional sorted array for a value, using the [IComparable](https://docs.microsoft.com/en-us/dotnet/api/system.icomparable?view=net-6.0) interface implemented by each element of the array and by the specified value. |
| [BinarySearch(Array, Int32, Int32, Object, IComparer)](https://docs.microsoft.com/en-us/dotnet/api/system.array.binarysearch?view=net-6.0#system-array-binarysearch(system-array-system-int32-system-int32-system-object-system-collections-icomparer)) | Searches a range of elements in a one-dimensional sorted array for a value, using the specified [IComparer](https://docs.microsoft.com/en-us/dotnet/api/system.collections.icomparer?view=net-6.0) interface. |
| [BinarySearch(Array, Object)](https://docs.microsoft.com/en-us/dotnet/api/system.array.binarysearch?view=net-6.0#system-array-binarysearch(system-array-system-object)) | Searches an entire one-dimensional sorted array for a specific element, using the [IComparable](https://docs.microsoft.com/en-us/dotnet/api/system.icomparable?view=net-6.0) interface implemented by each element of the array and by the specified object. |
| [BinarySearch(Array, Object, IComparer)](https://docs.microsoft.com/en-us/dotnet/api/system.array.binarysearch?view=net-6.0#system-array-binarysearch(system-array-system-object-system-collections-icomparer)) | Searches an entire one-dimensional sorted array for a value using the specified [IComparer](https://docs.microsoft.com/en-us/dotnet/api/system.collections.icomparer?view=net-6.0) interface. |
| [BinarySearch<T>(T[], Int32, Int32, T)](https://docs.microsoft.com/en-us/dotnet/api/system.array.binarysearch?view=net-6.0#system-array-binarysearch-1(-0()-system-int32-system-int32-0)) | Searches a range of elements in a one-dimensional sorted array for a value, using the [IComparable<T>](https://docs.microsoft.com/en-us/dotnet/api/system.icomparable-1?view=net-6.0) generic interface implemented by each element of the [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) and by the specified value. |
| [BinarySearch<T>(T[], Int32, Int32, T, IComparer<T>)](https://docs.microsoft.com/en-us/dotnet/api/system.array.binarysearch?view=net-6.0#system-array-binarysearch-1(-0()-system-int32-system-int32-0-system-collections-generic-icomparer((-0)))) | Searches a range of elements in a one-dimensional sorted array for a value, using the specified [IComparer<T>](https://docs.microsoft.com/en-us/dotnet/api/system.collections.generic.icomparer-1?view=net-6.0) generic interface. |
| [BinarySearch<T>(T[], T)](https://docs.microsoft.com/en-us/dotnet/api/system.array.binarysearch?view=net-6.0#system-array-binarysearch-1(-0()-0)) | Searches an entire one-dimensional sorted array for a specific element, using the [IComparable<T>](https://docs.microsoft.com/en-us/dotnet/api/system.icomparable-1?view=net-6.0) generic interface implemented by each element of the [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) and by the specified object. |
| [BinarySearch<T>(T[], T, IComparer<T>)](https://docs.microsoft.com/en-us/dotnet/api/system.array.binarysearch?view=net-6.0#system-array-binarysearch-1(-0()-0-system-collections-generic-icomparer((-0)))) | Searches an entire one-dimensional sorted array for a value using the specified [IComparer<T>](https://docs.microsoft.com/en-us/dotnet/api/system.collections.generic.icomparer-1?view=net-6.0) generic interface. |
| [Clear(Array)](https://docs.microsoft.com/en-us/dotnet/api/system.array.clear?view=net-6.0#system-array-clear(system-array)) | Clears the contents of an array. |
| [Clear(Array, Int32, Int32)](https://docs.microsoft.com/en-us/dotnet/api/system.array.clear?view=net-6.0#system-array-clear(system-array-system-int32-system-int32)) | Sets a range of elements in an array to the default value of each element type. |
| [Clone()](https://docs.microsoft.com/en-us/dotnet/api/system.array.clone?view=net-6.0#system-array-clone) | Creates a shallow copy of the [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0). |
| [ConstrainedCopy(Array, Int32, Array, Int32, Int32)](https://docs.microsoft.com/en-us/dotnet/api/system.array.constrainedcopy?view=net-6.0#system-array-constrainedcopy(system-array-system-int32-system-array-system-int32-system-int32)) | Copies a range of elements from an [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) starting at the specified source index and pastes them to another [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) starting at the specified destination index. Guarantees that all changes are undone if the copy does not succeed completely. |
| [ConvertAll<TInput,TOutput>(TInput[], Converter<TInput,TOutput>)](https://docs.microsoft.com/en-us/dotnet/api/system.array.convertall?view=net-6.0#system-array-convertall-2(-0()-system-converter((-0-1)))) | Converts an array of one type to an array of another type. |
| [Copy(Array, Array, Int32)](https://docs.microsoft.com/en-us/dotnet/api/system.array.copy?view=net-6.0#system-array-copy(system-array-system-array-system-int32)) | Copies a range of elements from an [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) starting at the first element and pastes them into another [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) starting at the first element. The length is specified as a 32-bit integer. |
| [Copy(Array, Array, Int64)](https://docs.microsoft.com/en-us/dotnet/api/system.array.copy?view=net-6.0#system-array-copy(system-array-system-array-system-int64)) | Copies a range of elements from an [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) starting at the first element and pastes them into another [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) starting at the first element. The length is specified as a 64-bit integer. |
| [Copy(Array, Int32, Array, Int32, Int32)](https://docs.microsoft.com/en-us/dotnet/api/system.array.copy?view=net-6.0#system-array-copy(system-array-system-int32-system-array-system-int32-system-int32)) | Copies a range of elements from an [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) starting at the specified source index and pastes them to another [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) starting at the specified destination index. The length and the indexes are specified as 32-bit integers. |
| [Copy(Array, Int64, Array, Int64, Int64)](https://docs.microsoft.com/en-us/dotnet/api/system.array.copy?view=net-6.0#system-array-copy(system-array-system-int64-system-array-system-int64-system-int64)) | Copies a range of elements from an [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) starting at the specified source index and pastes them to another [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) starting at the specified destination index. The length and the indexes are specified as 64-bit integers. |
| [CopyTo(Array, Int32)](https://docs.microsoft.com/en-us/dotnet/api/system.array.copyto?view=net-6.0#system-array-copyto(system-array-system-int32)) | Copies all the elements of the current one-dimensional array to the specified one-dimensional array starting at the specified destination array index. The index is specified as a 32-bit integer. |
| [CopyTo(Array, Int64)](https://docs.microsoft.com/en-us/dotnet/api/system.array.copyto?view=net-6.0#system-array-copyto(system-array-system-int64)) | Copies all the elements of the current one-dimensional array to the specified one-dimensional array starting at the specified destination array index. The index is specified as a 64-bit integer. |
| [CreateInstance(Type, Int32)](https://docs.microsoft.com/en-us/dotnet/api/system.array.createinstance?view=net-6.0#system-array-createinstance(system-type-system-int32)) | Creates a one-dimensional [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) of the specified [Type](https://docs.microsoft.com/en-us/dotnet/api/system.type?view=net-6.0) and length, with zero-based indexing. |
| [CreateInstance(Type, Int32, Int32)](https://docs.microsoft.com/en-us/dotnet/api/system.array.createinstance?view=net-6.0#system-array-createinstance(system-type-system-int32-system-int32)) | Creates a two-dimensional [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) of the specified [Type](https://docs.microsoft.com/en-us/dotnet/api/system.type?view=net-6.0) and dimension lengths, with zero-based indexing. |
| [CreateInstance(Type, Int32, Int32, Int32)](https://docs.microsoft.com/en-us/dotnet/api/system.array.createinstance?view=net-6.0#system-array-createinstance(system-type-system-int32-system-int32-system-int32)) | Creates a three-dimensional [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) of the specified [Type](https://docs.microsoft.com/en-us/dotnet/api/system.type?view=net-6.0) and dimension lengths, with zero-based indexing. |
| [CreateInstance(Type, Int32[])](https://docs.microsoft.com/en-us/dotnet/api/system.array.createinstance?view=net-6.0#system-array-createinstance(system-type-system-int32())) | Creates a multidimensional [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) of the specified [Type](https://docs.microsoft.com/en-us/dotnet/api/system.type?view=net-6.0) and dimension lengths, with zero-based indexing. The dimension lengths are specified in an array of 32-bit integers. |
| [CreateInstance(Type, Int32[], Int32[])](https://docs.microsoft.com/en-us/dotnet/api/system.array.createinstance?view=net-6.0#system-array-createinstance(system-type-system-int32()-system-int32())) | Creates a multidimensional [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) of the specified [Type](https://docs.microsoft.com/en-us/dotnet/api/system.type?view=net-6.0) and dimension lengths, with the specified lower bounds. |
| [CreateInstance(Type, Int64[])](https://docs.microsoft.com/en-us/dotnet/api/system.array.createinstance?view=net-6.0#system-array-createinstance(system-type-system-int64())) | Creates a multidimensional [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) of the specified [Type](https://docs.microsoft.com/en-us/dotnet/api/system.type?view=net-6.0) and dimension lengths, with zero-based indexing. The dimension lengths are specified in an array of 64-bit integers. |
| [Empty<T>()](https://docs.microsoft.com/en-us/dotnet/api/system.array.empty?view=net-6.0#system-array-empty-1) | Returns an empty array. |
| [Equals(Object)](https://docs.microsoft.com/en-us/dotnet/api/system.object.equals?view=net-6.0#system-object-equals(system-object)) | Determines whether the specified object is equal to the current object.  (Inherited from [Object](https://docs.microsoft.com/en-us/dotnet/api/system.object?view=net-6.0)) |
| [Exists<T>(T[], Predicate<T>)](https://docs.microsoft.com/en-us/dotnet/api/system.array.exists?view=net-6.0#system-array-exists-1(-0()-system-predicate((-0)))) | Determines whether the specified array contains elements that match the conditions defined by the specified predicate. |
| [Fill<T>(T[], T)](https://docs.microsoft.com/en-us/dotnet/api/system.array.fill?view=net-6.0#system-array-fill-1(-0()-0)) | Assigns the given value of type T to each element of the specified array. |
| [Fill<T>(T[], T, Int32, Int32)](https://docs.microsoft.com/en-us/dotnet/api/system.array.fill?view=net-6.0#system-array-fill-1(-0()-0-system-int32-system-int32)) | Assigns the given value of type T to the elements of the specified array which are within the range of startIndex (inclusive) and the next count number of indices. |
| [Find<T>(T[], Predicate<T>)](https://docs.microsoft.com/en-us/dotnet/api/system.array.find?view=net-6.0#system-array-find-1(-0()-system-predicate((-0)))) | Searches for an element that matches the conditions defined by the specified predicate, and returns the first occurrence within the entire [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0). |
| [FindAll<T>(T[], Predicate<T>)](https://docs.microsoft.com/en-us/dotnet/api/system.array.findall?view=net-6.0#system-array-findall-1(-0()-system-predicate((-0)))) | Retrieves all the elements that match the conditions defined by the specified predicate. |
| [FindIndex<T>(T[], Int32, Int32, Predicate<T>)](https://docs.microsoft.com/en-us/dotnet/api/system.array.findindex?view=net-6.0#system-array-findindex-1(-0()-system-int32-system-int32-system-predicate((-0)))) | Searches for an element that matches the conditions defined by the specified predicate, and returns the zero-based index of the first occurrence within the range of elements in the [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) that starts at the specified index and contains the specified number of elements. |
| [FindIndex<T>(T[], Int32, Predicate<T>)](https://docs.microsoft.com/en-us/dotnet/api/system.array.findindex?view=net-6.0#system-array-findindex-1(-0()-system-int32-system-predicate((-0)))) | Searches for an element that matches the conditions defined by the specified predicate, and returns the zero-based index of the first occurrence within the range of elements in the [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) that extends from the specified index to the last element. |
| [FindIndex<T>(T[], Predicate<T>)](https://docs.microsoft.com/en-us/dotnet/api/system.array.findindex?view=net-6.0#system-array-findindex-1(-0()-system-predicate((-0)))) | Searches for an element that matches the conditions defined by the specified predicate, and returns the zero-based index of the first occurrence within the entire [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0). |
| [FindLast<T>(T[], Predicate<T>)](https://docs.microsoft.com/en-us/dotnet/api/system.array.findlast?view=net-6.0#system-array-findlast-1(-0()-system-predicate((-0)))) | Searches for an element that matches the conditions defined by the specified predicate, and returns the last occurrence within the entire [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0). |
| [FindLastIndex<T>(T[], Int32, Int32, Predicate<T>)](https://docs.microsoft.com/en-us/dotnet/api/system.array.findlastindex?view=net-6.0#system-array-findlastindex-1(-0()-system-int32-system-int32-system-predicate((-0)))) | Searches for an element that matches the conditions defined by the specified predicate, and returns the zero-based index of the last occurrence within the range of elements in the [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) that contains the specified number of elements and ends at the specified index. |
| [FindLastIndex<T>(T[], Int32, Predicate<T>)](https://docs.microsoft.com/en-us/dotnet/api/system.array.findlastindex?view=net-6.0#system-array-findlastindex-1(-0()-system-int32-system-predicate((-0)))) | Searches for an element that matches the conditions defined by the specified predicate, and returns the zero-based index of the last occurrence within the range of elements in the [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) that extends from the first element to the specified index. |
| [FindLastIndex<T>(T[], Predicate<T>)](https://docs.microsoft.com/en-us/dotnet/api/system.array.findlastindex?view=net-6.0#system-array-findlastindex-1(-0()-system-predicate((-0)))) | Searches for an element that matches the conditions defined by the specified predicate, and returns the zero-based index of the last occurrence within the entire [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0). |
| [ForEach<T>(T[], Action<T>)](https://docs.microsoft.com/en-us/dotnet/api/system.array.foreach?view=net-6.0#system-array-foreach-1(-0()-system-action((-0)))) | Performs the specified action on each element of the specified array. |
| [GetEnumerator()](https://docs.microsoft.com/en-us/dotnet/api/system.array.getenumerator?view=net-6.0#system-array-getenumerator) | Returns an [IEnumerator](https://docs.microsoft.com/en-us/dotnet/api/system.collections.ienumerator?view=net-6.0) for the [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0). |
| [GetHashCode()](https://docs.microsoft.com/en-us/dotnet/api/system.object.gethashcode?view=net-6.0#system-object-gethashcode) | Serves as the default hash function.  (Inherited from [Object](https://docs.microsoft.com/en-us/dotnet/api/system.object?view=net-6.0)) |
| [GetLength(Int32)](https://docs.microsoft.com/en-us/dotnet/api/system.array.getlength?view=net-6.0#system-array-getlength(system-int32)) | Gets a 32-bit integer that represents the number of elements in the specified dimension of the [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0). |
| [GetLongLength(Int32)](https://docs.microsoft.com/en-us/dotnet/api/system.array.getlonglength?view=net-6.0#system-array-getlonglength(system-int32)) | Gets a 64-bit integer that represents the number of elements in the specified dimension of the [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0). |
| [GetLowerBound(Int32)](https://docs.microsoft.com/en-us/dotnet/api/system.array.getlowerbound?view=net-6.0#system-array-getlowerbound(system-int32)) | Gets the index of the first element of the specified dimension in the array. |
| [GetType()](https://docs.microsoft.com/en-us/dotnet/api/system.object.gettype?view=net-6.0#system-object-gettype) | Gets the [Type](https://docs.microsoft.com/en-us/dotnet/api/system.type?view=net-6.0) of the current instance.  (Inherited from [Object](https://docs.microsoft.com/en-us/dotnet/api/system.object?view=net-6.0)) |
| [GetUpperBound(Int32)](https://docs.microsoft.com/en-us/dotnet/api/system.array.getupperbound?view=net-6.0#system-array-getupperbound(system-int32)) | Gets the index of the last element of the specified dimension in the array. |
| [GetValue(Int32)](https://docs.microsoft.com/en-us/dotnet/api/system.array.getvalue?view=net-6.0#system-array-getvalue(system-int32)) | Gets the value at the specified position in the one-dimensional [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0). The index is specified as a 32-bit integer. |
| [GetValue(Int32, Int32)](https://docs.microsoft.com/en-us/dotnet/api/system.array.getvalue?view=net-6.0#system-array-getvalue(system-int32-system-int32)) | Gets the value at the specified position in the two-dimensional [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0). The indexes are specified as 32-bit integers. |
| [GetValue(Int32, Int32, Int32)](https://docs.microsoft.com/en-us/dotnet/api/system.array.getvalue?view=net-6.0#system-array-getvalue(system-int32-system-int32-system-int32)) | Gets the value at the specified position in the three-dimensional [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0). The indexes are specified as 32-bit integers. |
| [GetValue(Int32[])](https://docs.microsoft.com/en-us/dotnet/api/system.array.getvalue?view=net-6.0#system-array-getvalue(system-int32())) | Gets the value at the specified position in the multidimensional [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0). The indexes are specified as an array of 32-bit integers. |
| [GetValue(Int64)](https://docs.microsoft.com/en-us/dotnet/api/system.array.getvalue?view=net-6.0#system-array-getvalue(system-int64)) | Gets the value at the specified position in the one-dimensional [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0). The index is specified as a 64-bit integer. |
| [GetValue(Int64, Int64)](https://docs.microsoft.com/en-us/dotnet/api/system.array.getvalue?view=net-6.0#system-array-getvalue(system-int64-system-int64)) | Gets the value at the specified position in the two-dimensional [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0). The indexes are specified as 64-bit integers. |
| [GetValue(Int64, Int64, Int64)](https://docs.microsoft.com/en-us/dotnet/api/system.array.getvalue?view=net-6.0#system-array-getvalue(system-int64-system-int64-system-int64)) | Gets the value at the specified position in the three-dimensional [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0). The indexes are specified as 64-bit integers. |
| [GetValue(Int64[])](https://docs.microsoft.com/en-us/dotnet/api/system.array.getvalue?view=net-6.0#system-array-getvalue(system-int64())) | Gets the value at the specified position in the multidimensional [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0). The indexes are specified as an array of 64-bit integers. |
| [IndexOf(Array, Object)](https://docs.microsoft.com/en-us/dotnet/api/system.array.indexof?view=net-6.0#system-array-indexof(system-array-system-object)) | Searches for the specified object and returns the index of its first occurrence in a one-dimensional array. |
| [IndexOf(Array, Object, Int32)](https://docs.microsoft.com/en-us/dotnet/api/system.array.indexof?view=net-6.0#system-array-indexof(system-array-system-object-system-int32)) | Searches for the specified object in a range of elements of a one-dimensional array, and returns the index of its first occurrence. The range extends from a specified index to the end of the array. |
| [IndexOf(Array, Object, Int32, Int32)](https://docs.microsoft.com/en-us/dotnet/api/system.array.indexof?view=net-6.0#system-array-indexof(system-array-system-object-system-int32-system-int32)) | Searches for the specified object in a range of elements of a one-dimensional array, and returns the index of ifs first occurrence. The range extends from a specified index for a specified number of elements. |
| [IndexOf<T>(T[], T)](https://docs.microsoft.com/en-us/dotnet/api/system.array.indexof?view=net-6.0#system-array-indexof-1(-0()-0)) | Searches for the specified object and returns the index of its first occurrence in a one-dimensional array. |
| [IndexOf<T>(T[], T, Int32)](https://docs.microsoft.com/en-us/dotnet/api/system.array.indexof?view=net-6.0#system-array-indexof-1(-0()-0-system-int32)) | Searches for the specified object in a range of elements of a one dimensional array, and returns the index of its first occurrence. The range extends from a specified index to the end of the array. |
| [IndexOf<T>(T[], T, Int32, Int32)](https://docs.microsoft.com/en-us/dotnet/api/system.array.indexof?view=net-6.0#system-array-indexof-1(-0()-0-system-int32-system-int32)) | Searches for the specified object in a range of elements of a one-dimensional array, and returns the index of its first occurrence. The range extends from a specified index for a specified number of elements. |
| [Initialize()](https://docs.microsoft.com/en-us/dotnet/api/system.array.initialize?view=net-6.0#system-array-initialize) | Initializes every element of the value-type [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) by calling the parameterless constructor of the value type. |
| [LastIndexOf(Array, Object)](https://docs.microsoft.com/en-us/dotnet/api/system.array.lastindexof?view=net-6.0#system-array-lastindexof(system-array-system-object)) | Searches for the specified object and returns the index of the last occurrence within the entire one-dimensional [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0). |
| [LastIndexOf(Array, Object, Int32)](https://docs.microsoft.com/en-us/dotnet/api/system.array.lastindexof?view=net-6.0#system-array-lastindexof(system-array-system-object-system-int32)) | Searches for the specified object and returns the index of the last occurrence within the range of elements in the one-dimensional [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) that extends from the first element to the specified index. |
| [LastIndexOf(Array, Object, Int32, Int32)](https://docs.microsoft.com/en-us/dotnet/api/system.array.lastindexof?view=net-6.0#system-array-lastindexof(system-array-system-object-system-int32-system-int32)) | Searches for the specified object and returns the index of the last occurrence within the range of elements in the one-dimensional [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) that contains the specified number of elements and ends at the specified index. |
| [LastIndexOf<T>(T[], T)](https://docs.microsoft.com/en-us/dotnet/api/system.array.lastindexof?view=net-6.0#system-array-lastindexof-1(-0()-0)) | Searches for the specified object and returns the index of the last occurrence within the entire [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0). |
| [LastIndexOf<T>(T[], T, Int32)](https://docs.microsoft.com/en-us/dotnet/api/system.array.lastindexof?view=net-6.0#system-array-lastindexof-1(-0()-0-system-int32)) | Searches for the specified object and returns the index of the last occurrence within the range of elements in the [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) that extends from the first element to the specified index. |
| [LastIndexOf<T>(T[], T, Int32, Int32)](https://docs.microsoft.com/en-us/dotnet/api/system.array.lastindexof?view=net-6.0#system-array-lastindexof-1(-0()-0-system-int32-system-int32)) | Searches for the specified object and returns the index of the last occurrence within the range of elements in the [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) that contains the specified number of elements and ends at the specified index. |
| [MemberwiseClone()](https://docs.microsoft.com/en-us/dotnet/api/system.object.memberwiseclone?view=net-6.0#system-object-memberwiseclone) | Creates a shallow copy of the current [Object](https://docs.microsoft.com/en-us/dotnet/api/system.object?view=net-6.0).  (Inherited from [Object](https://docs.microsoft.com/en-us/dotnet/api/system.object?view=net-6.0)) |
| [Resize<T>(T[], Int32)](https://docs.microsoft.com/en-us/dotnet/api/system.array.resize?view=net-6.0#system-array-resize-1(-0()@-system-int32)) | Changes the number of elements of a one-dimensional array to the specified new size. |
| [Reverse(Array)](https://docs.microsoft.com/en-us/dotnet/api/system.array.reverse?view=net-6.0#system-array-reverse(system-array)) | Reverses the sequence of the elements in the entire one-dimensional [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0). |
| [Reverse(Array, Int32, Int32)](https://docs.microsoft.com/en-us/dotnet/api/system.array.reverse?view=net-6.0#system-array-reverse(system-array-system-int32-system-int32)) | Reverses the sequence of a subset of the elements in the one-dimensional [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0). |
| [Reverse<T>(T[])](https://docs.microsoft.com/en-us/dotnet/api/system.array.reverse?view=net-6.0#system-array-reverse-1(-0())) | Reverses the sequence of the elements in the one-dimensional generic array. |
| [Reverse<T>(T[], Int32, Int32)](https://docs.microsoft.com/en-us/dotnet/api/system.array.reverse?view=net-6.0#system-array-reverse-1(-0()-system-int32-system-int32)) | Reverses the sequence of a subset of the elements in the one-dimensional generic array. |
| [SetValue(Object, Int32)](https://docs.microsoft.com/en-us/dotnet/api/system.array.setvalue?view=net-6.0#system-array-setvalue(system-object-system-int32)) | Sets a value to the element at the specified position in the one-dimensional [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0). The index is specified as a 32-bit integer. |
| [SetValue(Object, Int32, Int32)](https://docs.microsoft.com/en-us/dotnet/api/system.array.setvalue?view=net-6.0#system-array-setvalue(system-object-system-int32-system-int32)) | Sets a value to the element at the specified position in the two-dimensional [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0). The indexes are specified as 32-bit integers. |
| [SetValue(Object, Int32, Int32, Int32)](https://docs.microsoft.com/en-us/dotnet/api/system.array.setvalue?view=net-6.0#system-array-setvalue(system-object-system-int32-system-int32-system-int32)) | Sets a value to the element at the specified position in the three-dimensional [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0). The indexes are specified as 32-bit integers. |
| [SetValue(Object, Int32[])](https://docs.microsoft.com/en-us/dotnet/api/system.array.setvalue?view=net-6.0#system-array-setvalue(system-object-system-int32())) | Sets a value to the element at the specified position in the multidimensional [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0). The indexes are specified as an array of 32-bit integers. |
| [SetValue(Object, Int64)](https://docs.microsoft.com/en-us/dotnet/api/system.array.setvalue?view=net-6.0#system-array-setvalue(system-object-system-int64)) | Sets a value to the element at the specified position in the one-dimensional [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0). The index is specified as a 64-bit integer. |
| [SetValue(Object, Int64, Int64)](https://docs.microsoft.com/en-us/dotnet/api/system.array.setvalue?view=net-6.0#system-array-setvalue(system-object-system-int64-system-int64)) | Sets a value to the element at the specified position in the two-dimensional [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0). The indexes are specified as 64-bit integers. |
| [SetValue(Object, Int64, Int64, Int64)](https://docs.microsoft.com/en-us/dotnet/api/system.array.setvalue?view=net-6.0#system-array-setvalue(system-object-system-int64-system-int64-system-int64)) | Sets a value to the element at the specified position in the three-dimensional [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0). The indexes are specified as 64-bit integers. |
| [SetValue(Object, Int64[])](https://docs.microsoft.com/en-us/dotnet/api/system.array.setvalue?view=net-6.0#system-array-setvalue(system-object-system-int64())) | Sets a value to the element at the specified position in the multidimensional [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0). The indexes are specified as an array of 64-bit integers. |
| [Sort(Array)](https://docs.microsoft.com/en-us/dotnet/api/system.array.sort?view=net-6.0#system-array-sort(system-array)) | Sorts the elements in an entire one-dimensional [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) using the [IComparable](https://docs.microsoft.com/en-us/dotnet/api/system.icomparable?view=net-6.0) implementation of each element of the [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0). |
| [Sort(Array, Array)](https://docs.microsoft.com/en-us/dotnet/api/system.array.sort?view=net-6.0#system-array-sort(system-array-system-array)) | Sorts a pair of one-dimensional [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) objects (one contains the keys and the other contains the corresponding items) based on the keys in the first [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) using the [IComparable](https://docs.microsoft.com/en-us/dotnet/api/system.icomparable?view=net-6.0) implementation of each key. |
| [Sort(Array, Array, IComparer)](https://docs.microsoft.com/en-us/dotnet/api/system.array.sort?view=net-6.0#system-array-sort(system-array-system-array-system-collections-icomparer)) | Sorts a pair of one-dimensional [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) objects (one contains the keys and the other contains the corresponding items) based on the keys in the first [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) using the specified [IComparer](https://docs.microsoft.com/en-us/dotnet/api/system.collections.icomparer?view=net-6.0). |
| [Sort(Array, Array, Int32, Int32)](https://docs.microsoft.com/en-us/dotnet/api/system.array.sort?view=net-6.0#system-array-sort(system-array-system-array-system-int32-system-int32)) | Sorts a range of elements in a pair of one-dimensional [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) objects (one contains the keys and the other contains the corresponding items) based on the keys in the first [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) using the [IComparable](https://docs.microsoft.com/en-us/dotnet/api/system.icomparable?view=net-6.0) implementation of each key. |
| [Sort(Array, Array, Int32, Int32, IComparer)](https://docs.microsoft.com/en-us/dotnet/api/system.array.sort?view=net-6.0#system-array-sort(system-array-system-array-system-int32-system-int32-system-collections-icomparer)) | Sorts a range of elements in a pair of one-dimensional [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) objects (one contains the keys and the other contains the corresponding items) based on the keys in the first [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) using the specified [IComparer](https://docs.microsoft.com/en-us/dotnet/api/system.collections.icomparer?view=net-6.0). |
| [Sort(Array, IComparer)](https://docs.microsoft.com/en-us/dotnet/api/system.array.sort?view=net-6.0#system-array-sort(system-array-system-collections-icomparer)) | Sorts the elements in a one-dimensional [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) using the specified [IComparer](https://docs.microsoft.com/en-us/dotnet/api/system.collections.icomparer?view=net-6.0). |
| [Sort(Array, Int32, Int32)](https://docs.microsoft.com/en-us/dotnet/api/system.array.sort?view=net-6.0#system-array-sort(system-array-system-int32-system-int32)) | Sorts the elements in a range of elements in a one-dimensional [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) using the [IComparable](https://docs.microsoft.com/en-us/dotnet/api/system.icomparable?view=net-6.0) implementation of each element of the [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0). |
| [Sort(Array, Int32, Int32, IComparer)](https://docs.microsoft.com/en-us/dotnet/api/system.array.sort?view=net-6.0#system-array-sort(system-array-system-int32-system-int32-system-collections-icomparer)) | Sorts the elements in a range of elements in a one-dimensional [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) using the specified [IComparer](https://docs.microsoft.com/en-us/dotnet/api/system.collections.icomparer?view=net-6.0). |
| [Sort<T>(T[])](https://docs.microsoft.com/en-us/dotnet/api/system.array.sort?view=net-6.0#system-array-sort-1(-0())) | Sorts the elements in an entire [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) using the [IComparable<T>](https://docs.microsoft.com/en-us/dotnet/api/system.icomparable-1?view=net-6.0) generic interface implementation of each element of the [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0). |
| [Sort<T>(T[], Comparison<T>)](https://docs.microsoft.com/en-us/dotnet/api/system.array.sort?view=net-6.0#system-array-sort-1(-0()-system-comparison((-0)))) | Sorts the elements in an [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) using the specified [Comparison<T>](https://docs.microsoft.com/en-us/dotnet/api/system.comparison-1?view=net-6.0). |
| [Sort<T>(T[], IComparer<T>)](https://docs.microsoft.com/en-us/dotnet/api/system.array.sort?view=net-6.0#system-array-sort-1(-0()-system-collections-generic-icomparer((-0)))) | Sorts the elements in an [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) using the specified [IComparer<T>](https://docs.microsoft.com/en-us/dotnet/api/system.collections.generic.icomparer-1?view=net-6.0) generic interface. |
| [Sort<T>(T[], Int32, Int32)](https://docs.microsoft.com/en-us/dotnet/api/system.array.sort?view=net-6.0#system-array-sort-1(-0()-system-int32-system-int32)) | Sorts the elements in a range of elements in an [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) using the [IComparable<T>](https://docs.microsoft.com/en-us/dotnet/api/system.icomparable-1?view=net-6.0) generic interface implementation of each element of the [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0). |
| [Sort<T>(T[], Int32, Int32, IComparer<T>)](https://docs.microsoft.com/en-us/dotnet/api/system.array.sort?view=net-6.0#system-array-sort-1(-0()-system-int32-system-int32-system-collections-generic-icomparer((-0)))) | Sorts the elements in a range of elements in an [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) using the specified [IComparer<T>](https://docs.microsoft.com/en-us/dotnet/api/system.collections.generic.icomparer-1?view=net-6.0) generic interface. |
| [Sort<TKey,TValue>(TKey[], TValue[])](https://docs.microsoft.com/en-us/dotnet/api/system.array.sort?view=net-6.0#system-array-sort-2(-0()-1())) | Sorts a pair of [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) objects (one contains the keys and the other contains the corresponding items) based on the keys in the first [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) using the [IComparable<T>](https://docs.microsoft.com/en-us/dotnet/api/system.icomparable-1?view=net-6.0) generic interface implementation of each key. |
| [Sort<TKey,TValue>(TKey[], TValue[], IComparer<TKey>)](https://docs.microsoft.com/en-us/dotnet/api/system.array.sort?view=net-6.0#system-array-sort-2(-0()-1()-system-collections-generic-icomparer((-0)))) | Sorts a pair of [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) objects (one contains the keys and the other contains the corresponding items) based on the keys in the first [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) using the specified [IComparer<T>](https://docs.microsoft.com/en-us/dotnet/api/system.collections.generic.icomparer-1?view=net-6.0) generic interface. |
| [Sort<TKey,TValue>(TKey[], TValue[], Int32, Int32)](https://docs.microsoft.com/en-us/dotnet/api/system.array.sort?view=net-6.0#system-array-sort-2(-0()-1()-system-int32-system-int32)) | Sorts a range of elements in a pair of [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) objects (one contains the keys and the other contains the corresponding items) based on the keys in the first [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) using the [IComparable<T>](https://docs.microsoft.com/en-us/dotnet/api/system.icomparable-1?view=net-6.0) generic interface implementation of each key. |
| [Sort<TKey,TValue>(TKey[], TValue[], Int32, Int32, IComparer<TKey>)](https://docs.microsoft.com/en-us/dotnet/api/system.array.sort?view=net-6.0#system-array-sort-2(-0()-1()-system-int32-system-int32-system-collections-generic-icomparer((-0)))) | Sorts a range of elements in a pair of [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) objects (one contains the keys and the other contains the corresponding items) based on the keys in the first [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0) using the specified [IComparer<T>](https://docs.microsoft.com/en-us/dotnet/api/system.collections.generic.icomparer-1?view=net-6.0) generic interface. |
| [ToString()](https://docs.microsoft.com/en-us/dotnet/api/system.object.tostring?view=net-6.0#system-object-tostring) | Returns a string that represents the current object.  (Inherited from [Object](https://docs.microsoft.com/en-us/dotnet/api/system.object?view=net-6.0)) |
| [TrueForAll<T>(T[], Predicate<T>)](https://docs.microsoft.com/en-us/dotnet/api/system.array.trueforall?view=net-6.0#system-array-trueforall-1(-0()-system-predicate((-0)))) | Determines whether every element in the array matches the conditions defined by the specified predicate. |

**Explicit Interface Implementations**

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| [ICollection.Count](https://docs.microsoft.com/en-us/dotnet/api/system.array.system-collections-icollection-count?view=net-6.0#system-array-system-collections-icollection-count) | Gets the number of elements contained in the [Array](https://docs.microsoft.com/en-us/dotnet/api/system.array?view=net-6.0). |
| [IList.Add(Object)](https://docs.microsoft.com/en-us/dotnet/api/system.array.system-collections-ilist-add?view=net-6.0#system-array-system-collections-ilist-add(system-object)) | Calling this method always throws a [NotSupportedException](https://docs.microsoft.com/en-us/dotnet/api/system.notsupportedexception?view=net-6.0) exception. |
| [IList.Clear()](https://docs.microsoft.com/en-us/dotnet/api/system.array.system-collections-ilist-clear?view=net-6.0#system-array-system-collections-ilist-clear) | Removes all items from the [IList](https://docs.microsoft.com/en-us/dotnet/api/system.collections.ilist?view=net-6.0). |
| [IList.Contains(Object)](https://docs.microsoft.com/en-us/dotnet/api/system.array.system-collections-ilist-contains?view=net-6.0#system-array-system-collections-ilist-contains(system-object)) | Determines whether an element is in the [IList](https://docs.microsoft.com/en-us/dotnet/api/system.collections.ilist?view=net-6.0). |
| [IList.IndexOf(Object)](https://docs.microsoft.com/en-us/dotnet/api/system.array.system-collections-ilist-indexof?view=net-6.0#system-array-system-collections-ilist-indexof(system-object)) | Determines the index of a specific item in the [IList](https://docs.microsoft.com/en-us/dotnet/api/system.collections.ilist?view=net-6.0). |
| [IList.Insert(Int32, Object)](https://docs.microsoft.com/en-us/dotnet/api/system.array.system-collections-ilist-insert?view=net-6.0#system-array-system-collections-ilist-insert(system-int32-system-object)) | Inserts an item to the [IList](https://docs.microsoft.com/en-us/dotnet/api/system.collections.ilist?view=net-6.0) at the specified index. |
| [IList.Item[Int32]](https://docs.microsoft.com/en-us/dotnet/api/system.array.system-collections-ilist-item?view=net-6.0#system-array-system-collections-ilist-item(system-int32)) | Gets or sets the element at the specified index. |
| [IList.Remove(Object)](https://docs.microsoft.com/en-us/dotnet/api/system.array.system-collections-ilist-remove?view=net-6.0#system-array-system-collections-ilist-remove(system-object)) | Removes the first occurrence of a specific object from the [IList](https://docs.microsoft.com/en-us/dotnet/api/system.collections.ilist?view=net-6.0). |
| [IList.RemoveAt(Int32)](https://docs.microsoft.com/en-us/dotnet/api/system.array.system-collections-ilist-removeat?view=net-6.0#system-array-system-collections-ilist-removeat(system-int32)) | Removes the [IList](https://docs.microsoft.com/en-us/dotnet/api/system.collections.ilist?view=net-6.0) item at the specified index. |
| [IStructuralComparable.CompareTo(Object, IComparer)](https://docs.microsoft.com/en-us/dotnet/api/system.array.system-collections-istructuralcomparable-compareto?view=net-6.0#system-array-system-collections-istructuralcomparable-compareto(system-object-system-collections-icomparer)) | Determines whether the current collection object precedes, occurs in the same position as, or follows another object in the sort order. |
| [IStructuralEquatable.Equals(Object, IEqualityComparer)](https://docs.microsoft.com/en-us/dotnet/api/system.array.system-collections-istructuralequatable-equals?view=net-6.0#system-array-system-collections-istructuralequatable-equals(system-object-system-collections-iequalitycomparer)) | Determines whether an object is equal to the current instance. |
| [IStructuralEquatable.GetHashCode(IEqualityComparer)](https://docs.microsoft.com/en-us/dotnet/api/system.array.system-collections-istructuralequatable-gethashcode?view=net-6.0#system-array-system-collections-istructuralequatable-gethashcode(system-collections-iequalitycomparer)) | Returns a hash code for the current instance. |

**Extension Methods**

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| [Cast<TResult>(IEnumerable)](https://docs.microsoft.com/en-us/dotnet/api/system.linq.enumerable.cast?view=net-6.0#system-linq-enumerable-cast-1(system-collections-ienumerable)) | Casts the elements of an [IEnumerable](https://docs.microsoft.com/en-us/dotnet/api/system.collections.ienumerable?view=net-6.0) to the specified type. |
| [OfType<TResult>(IEnumerable)](https://docs.microsoft.com/en-us/dotnet/api/system.linq.enumerable.oftype?view=net-6.0#system-linq-enumerable-oftype-1(system-collections-ienumerable)) | Filters the elements of an [IEnumerable](https://docs.microsoft.com/en-us/dotnet/api/system.collections.ienumerable?view=net-6.0) based on a specified type. |
| [AsParallel(IEnumerable)](https://docs.microsoft.com/en-us/dotnet/api/system.linq.parallelenumerable.asparallel?view=net-6.0#system-linq-parallelenumerable-asparallel(system-collections-ienumerable)) | Enables parallelization of a query. |
| [AsQueryable(IEnumerable)](https://docs.microsoft.com/en-us/dotnet/api/system.linq.queryable.asqueryable?view=net-6.0#system-linq-queryable-asqueryable(system-collections-ienumerable)) | Converts an [IEnumerable](https://docs.microsoft.com/en-us/dotnet/api/system.collections.ienumerable?view=net-6.0) to an [IQueryable](https://docs.microsoft.com/en-us/dotnet/api/system.linq.iqueryable?view=net-6.0). |

#### # **Methods**

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| public static int Compare(string strA, string strB) | Compares two specified string objects and returns an integer that indicates their relative position in the sort order. |
| public static int Compare(string strA, string strB, bool ignoreCase ) | Compares two specified string objects and returns an integer that indicates their relative position in the sort order. However, it ignores the case if the Boolean parameter is true. |
| public static string Concat(string str0, string str1) | Concatenates two string objects. |
| public static string Concat(string str0, string str1, string str2) | Concatenates three string objects. |
| public static string Concat(string str0, string str1, string str2, string str3) | Concatenates four-string objects. |
| public bool Contains(string value) | Returns a value indicating whether the specified String object occurs within this string. |
| public static string Copy(string str) | Creates a new String object with the same value as the specified string. |
| public void CopyTo(int sourceIndex, char[] destination, int destinationIndex, int count) | Copies a specified number of characters from a specified position of the String object to a specified position in an array of Unicode characters. |
| public bool EndsWith(string value) | Determines whether the end of the string object matches the specified string. |
| public bool Equals(string value) | Determines whether the current String object and the specified String object have the same value. |
| public static bool Equals(string a, string b) | Determines whether two specified String objects have the same value. |
| public static string Format(string format, Object arg0) | Replaces one or more format items in a specified string with the string representation of a specified object. |
| public int IndexOf(char value) | Returns the zero-based index of the first occurrence of the specified Unicode character in the current string. |
| public int IndexOf(string value) | Returns the zero-based index of the first occurrence of the specified string in this instance. |
| public int IndexOf(char value, int startIndex) | Returns the zero-based index of the first occurrence of the specified Unicode character in this string, starting the search at the specified character position. |
| public int IndexOf(string value, int startIndex) | Returns the zero-based index of the first occurrence of the specified string in this instance, starting the search at the specified character position. |
| public int IndexOfAny(char[] anyOf) | Returns the zero-based index of the first occurrence in this instance of any character in a specified array of Unicode characters. |
| public int IndexOfAny(char[] anyOf, int startIndex) | Returns the zero-based index of the first occurrence in this instance of any character in a specified array of Unicode characters, starting the search at the specified character position. |
| public string Insert(int startIndex, string value) | Returns a new string in which a specified string is inserted at a specified index position in the current string object. |
| public static bool IsNullOrEmpty(string value) | Indicates whether the specified string is null or an Empty string. |
| public static string Join(string separator, params string[] value) | Concatenates all the elements of a string array, using the specified separator between each element. |
| public static string Join(string separator, string[] value, int startIndex, int count) | Concatenates the specified elements of a string array, using the specified separator between each element. |
| public int LastIndexOf(char value) | Returns the zero-based index position of the last occurrence of the specified Unicode character within the current string object. |
| public int LastIndexOf(string value) | Returns the zero-based index position of the last occurrence of a specified string within the current string object. |
| public string Remove(int startIndex) | Removes all the characters in the current instance, beginning at a specified position and continuing through the last position, and returns the string. |
| public string Remove(int startIndex, int count) | Removes the specified number of characters in the current string beginning at a specified position and returns the string. |
| public string Replace(char oldChar, char newChar) | Replaces all occurrences of a specified Unicode character in the current string object with the specified Unicode character and returns the new string. |
| public string Replace(string oldValue, string newValue) | Replaces all occurrences of a specified string in the current string object with the specified string and returns the new string. |
| public string[] Split(params char[] separator) | Returns a string array that contains the substrings in the current string object, delimited by elements of a specified Unicode character array. |
| public string[] Split(char[] separator, int count) | Returns a string array that contains the substrings in the current string object, delimited by elements of a specified Unicode character array. The int parameter specifies the maximum number of substrings to return. |
| public bool StartsWith(string value) | Determines whether the beginning of this string instance matches the specified string. |
| public char[] ToCharArray() | Returns a Unicode character array with all the characters in the current string object. |
| public char[] ToCharArray(int startIndex, int length) | Returns a Unicode character array with all the characters in the current string object, starting from the specified index and up to the specified length. |
| public string ToLower() | Returns a copy of this string converted to lowercase. |
| public string ToUpper() | Returns a copy of this string converted to uppercase. |
| public string Trim() | Removes all leading and trailing white-space characters from the current String object. |

## [C#: Regular Expressions Cheat Sheet](https://simplecheatsheet.com/c-regular-expressions/)

#### The Regex Class

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| public bool IsMatch(string input) | Indicates whether the regular expression specified in the Regex constructor finds a match in a specified input string. |
| public bool IsMatch(string input, int startat) | Indicates whether the regular expression specified in the Regex constructor finds a match in the specified input string, beginning at the specified starting position in the string. |
| public static bool IsMatch(string input, string pattern) | Indicates whether the specified regular expression finds a match in the specified input string. |
| public MatchCollection Matches(string input) | Searches the specified input string for all occurrences of a regular expression. |
| public string Replace(string input, string replacement) | In a specified input string, replaces all strings that match a regular expression pattern with a specified replacement string. |
| public string[] Split(string input) | Splits an input string into an array of substrings at the positions defined by a regular expression pattern specified in the Regex constructor. |