Mscore.dll

#### Microsoft.Win32.RegistryKey

public void SetValue (string name, object! value) requires value != null otherwise ArgumentNullException;

requires name == null || name.Length < 255 otherwise ArgumentException;

public static RegistryKey OpenRemoteBaseKey (RegistryHive hKey, string! machineName)

requires machineName != null otherwise ArgumentNullException;

requires ((int)hKey & -16) == -2147483648 otherwise ArgumentException;

public void DeleteValue (string! name, bool throwOnMissingValue)

requires name != null otherwise ArgumentNullException;

requires throwOnMissingValue == false otherwise ArgumentException;

public RegistryKey CreateSubKey (string! subkey)

requires subkey != null otherwise ArgumentNullException;

requires subkey.Length < 255 otherwise ArgumentException;

#### System

#### Activator

public static object CreateInstance (Type! type, System.Reflection.BindingFlags bindingAttr, System.Reflection.Binder binder, Object[] args, System.Globalization.CultureInfo culture, Object[] activationAttributes)

requires type != null otherwise ArgumentNullException;

requires activationAttributes.Length <= 1 otherwise NotSupportedException;

#### AppDomain

Jut not-null?

#### ArgumentException

Jut not-null?

#### ArgumentOutOfRangeException

Jut not-null?

Array

public int Length

{

[StateIndependent]

get;

ensures 0 <= result && result <= int.MaxValue;

}

public static void Sort (Array! keys, Array items, int index, int length, System.Collections.IComparer comparer)

requires keys != null otherwise ArgumentNullException;

requires keys.Rank == 1 otherwise RankException;

requires items == null || items.Rank == 1 otherwise RankException;

requires items == null || keys.GetLowerBound(0) == items.GetLowerBound(0) otherwise ArgumentException;

requires index >= keys.GetLowerBound(0) otherwise ArgumentOutOfRangeException;

requires length >= 0 otherwise ArgumentOutOfRangeException;

requires keys.GetLowerBound(0) + index + length <= keys.Length otherwise ArgumentException;

requires items == null || index + length <= items.Length otherwise ArgumentException;

public static void Sort (Array array, int index, int length, System.Collections.IComparer comparer)

requires array != null otherwise ArgumentNullException;

requires array.Rank == 1 otherwise RankException;

requires index >= array.GetLowerBound(0) otherwise ArgumentOutOfRangeException;

requires length >= 0 otherwise ArgumentOutOfRangeException;

requires array.GetLowerBound(0) + index + length <= array.Length otherwise ArgumentException;

public static void Sort (Array! keys, Array items, System.Collections.IComparer comparer)

requires keys != null otherwise ArgumentNullException;

requires keys.Rank == 1 otherwise RankException;

requires items == null || items.Rank == 1 otherwise RankException;

requires items == null || keys.GetLowerBound(0) == items.GetLowerBound(0) otherwise ArgumentException;

public static void Sort (Array! array, System.Collections.IComparer comparer)

requires array != null otherwise ArgumentNullException;

requires array.Rank == 1 otherwise RankException;

public static void Sort (Array keys, Array items, int index, int length)

requires keys != null otherwise ArgumentNullException;

requires keys.Rank == 1 otherwise RankException;

requires items == null || items.Rank == 1 otherwise RankException;

requires items == null || keys.GetLowerBound(0) == items.GetLowerBound(0) otherwise ArgumentException;

requires index >= keys.GetLowerBound(0) otherwise ArgumentOutOfRangeException;

requires length >= 0 otherwise ArgumentOutOfRangeException;

requires keys.GetLowerBound(0) + index + length <= keys.Length otherwise ArgumentException;

requires items == null || index + length <= items.Length otherwise ArgumentException;

public static void Sort (Array array, int index, int length)

requires array != null otherwise ArgumentNullException;

requires array.Rank == 1 otherwise RankException;

requires index >= array.GetLowerBound(0) otherwise ArgumentOutOfRangeException;

requires length >= 0 otherwise ArgumentOutOfRangeException;

requires array.GetLowerBound(0) + index + length <= array.Length otherwise ArgumentException;

public static void Sort (Array! keys, Array items)

requires keys != null otherwise ArgumentNullException;

requires keys.Rank == 1 otherwise RankException;

requires items == null || items.Rank == 1 otherwise RankException;

requires items == null || keys.GetLowerBound(0) == items.GetLowerBound(0) otherwise ArgumentException;

public static int BinarySearch (Array! array, int index, int length, object value, System.Collections.IComparer comparer)

requires array != null otherwise ArgumentNullException;

requires array.Rank == 1 otherwise RankException;

requires index >= array.GetLowerBound(0) otherwise ArgumentOutOfRangeException;

requires length >= 0 otherwise ArgumentOutOfRangeException;

requires length <= array.Length - index otherwise ArgumentException;

public void SetValue (object value, long index1, long index2, long index3)

requires index1 <= 2147483647 otherwise ArgumentOutOfRangeException;

requires index1 >= -2147483648 otherwise ArgumentOutOfRangeException;

requires index2 <= 2147483647 otherwise ArgumentOutOfRangeException;

requires index2 >= -2147483648 otherwise ArgumentOutOfRangeException;

requires index3 <= 2147483647 otherwise ArgumentOutOfRangeException;

requires index3 >= -2147483648 otherwise ArgumentOutOfRangeException;

requires this.Rank == 3 otherwise ArgumentException;

requires index1 >= this.GetLowerBound(0) otherwise IndexOutOfRangeException;

requires index1 <= this.GetUpperBound(0) otherwise IndexOutOfRangeException;

requires index2 >= this.GetLowerBound(0) otherwise IndexOutOfRangeException;

requires index2 <= this.GetUpperBound(0) otherwise IndexOutOfRangeException;

requires index3 >= this.GetLowerBound(0) otherwise IndexOutOfRangeException;

requires index3 <= this.GetUpperBound(0) otherwise IndexOutOfRangeException;

public void SetValue (object value, long index1, long index2)

requires index1 <= 2147483647 otherwise ArgumentOutOfRangeException;

requires index1 >= -2147483648 otherwise ArgumentOutOfRangeException;

requires index2 <= 2147483647 otherwise ArgumentOutOfRangeException;

requires index2 >= -2147483648 otherwise ArgumentOutOfRangeException;

requires this.Rank == 2 otherwise ArgumentException;

requires index1 >= this.GetLowerBound(0) otherwise IndexOutOfRangeException;

requires index1 <= this.GetUpperBound(0) otherwise IndexOutOfRangeException;

requires index2 >= this.GetLowerBound(0) otherwise IndexOutOfRangeException;

requires index2 <= this.GetUpperBound(0) otherwise IndexOutOfRangeException;

public void SetValue (object value, int index)

requires this.Rank == 1 otherwise ArgumentException;

requires index >= this.GetLowerBound(0) otherwise IndexOutOfRangeException;

requires index <= this.GetUpperBound(0) otherwise IndexOutOfRangeException;

*Example of use (from SortedList.CopyTo)*

|  |
| --- |
| public virtual [void](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Void) [**CopyTo**](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Collections.SortedList/CopyTo(System.Array,Int32))([Array](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Array) array, [int](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int32) arrayIndex)  {  if (array == null)  {  throw new [ArgumentNullException](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.ArgumentNullException/.ctor(String,String))("array", [Environment](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment).[GetResourceString](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment/GetResourceString(String):String)("ArgumentNull\_Array"));  }  if (array.[Rank](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Array/property:Rank:Int32) != 1)  {  throw new [ArgumentException](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.ArgumentException/.ctor(String))([Environment](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment).[GetResourceString](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment/GetResourceString(String):String)("Arg\_RankMultiDimNotSupported"));  }  if (arrayIndex < 0)  {  throw new [ArgumentOutOfRangeException](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.ArgumentOutOfRangeException/.ctor(String,String))("arrayIndex", [Environment](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment).[GetResourceString](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment/GetResourceString(String):String)("ArgumentOutOfRange\_NeedNonNegNum"));  }  if ((array.[Length](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Array/property:Length:Int32) - arrayIndex) < this.[Count](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Collections.SortedList/property:Count:Int32))  {  throw new [ArgumentException](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.ArgumentException/.ctor(String))([Environment](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment).[GetResourceString](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment/GetResourceString(String):String)("Arg\_ArrayPlusOffTooSmall"));  }  for ([int](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int32" \o "System.Int32) **i** = 0; i < this.[Count](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Collections.SortedList/property:Count:Int32); i++)  {  [DictionaryEntry](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Collections.DictionaryEntry) **entry** = new [DictionaryEntry](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Collections.DictionaryEntry/.ctor(Object,Object))(this.[keys](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Collections.SortedList/keys:Object%5b%5d)[i], this.[values](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Collections.SortedList/values:Object%5b%5d)[i]);  array.[SetValue](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Array/SetValue(Object,Int32))(entry, ([int](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int32" \o "System.Int32)) (i + arrayIndex));  }  } |

|  |
| --- |
|  |

public static void Clear (Array! array, int index, int length)

requires array != null otherwise ArgumentNullException;

requires array.Rank == 1 otherwise RankException;

requires index >= array.GetLowerBound(0) otherwise ArgumentOutOfRangeException;

requires length >= 0 otherwise ArgumentOutOfRangeException;

requires array.Length - (index + array.GetLowerBound(0)) >= length otherwise ArgumentException;

public static void Copy (Array sourceArray, long sourceIndex, Array destinationArray, long destinationIndex, long length)

requires sourceArray != null otherwise ArgumentNullException;

requires destinationArray != null otherwise ArgumentNullException;

requires sourceArray.Rank == destinationArray.Rank otherwise RankException;

requires sourceIndex >= sourceArray.GetLowerBound(0) otherwise ArgumentOutOfRangeException;

requires destinationIndex >= destinationArray.GetLowerBound(0) otherwise ArgumentOutOfRangeException;

requires length >= 0 otherwise ArgumentOutOfRangeException;

requires sourceIndex + length <= sourceArray.GetLowerBound(0) + sourceArray.Length otherwise ArgumentException;

requires destinationIndex + length <= destinationArray.GetLowerBound(0) + destinationArray.Length otherwise ArgumentException;

requires sourceIndex <= 2147483647 otherwise ArgumentOutOfRangeException;

requires sourceIndex >= -2147483648 otherwise ArgumentOutOfRangeException;

requires destinationIndex <= 2147483647 otherwise ArgumentOutOfRangeException;

requires destinationIndex >= -2147483648 otherwise ArgumentOutOfRangeException;

requires length <= 2147483647 otherwise ArgumentOutOfRangeException;

requires length >= -2147483648 otherwise ArgumentOutOfRangeException;

**GetLength:**

Gets a 32-bit integer that represents the number of elements in the specified dimension of the [Array](urn:member:T:System.Array).

**Parameters**

*dimension*

A zero-based dimension of the [Array](urn:member:T:System.Array) whose length needs to be determined.

**Return Value**

A 32-bit integer that represents the number of elements in the specified dimension.

**Exceptions**

|  |  |
| --- | --- |
| **Exception** | **Condition** |
| [IndexOutOfRangeException](urn:member:T:System.IndexOutOfRangeException) | dimension is less than zero.-or-dimension is equal to or greater than [Rank](urn:member:P:System.Array.Rank). |

#### Attributes

*Non null*

#### BitConverter

public static bool ToBoolean (Byte[]! value, int startIndex)

requires value != null otherwise ArgumentNullException;

requires startIndex >= 0 otherwise ArgumentOutOfRangeException;

requires startIndex <= (value.Length - 1) otherwise ArgumentOutOfRangeException;

#### Boolean

Non null

#### Char

*Tutte cosi:*

public static double GetNumericValue (string! s, int index)

requires s != null otherwise ArgumentNullException;

requires index < s.Length otherwise ArgumentOutOfRangeException;

#### Console

Several checks on integers, but no one of that is in the Spec# contracts

#### Convert

Needs trace partitioning???

public static string ToString (Int64 value, int toBase)

requires toBase == 2 || toBase == 8 || toBase == 10 || toBase == 16 otherwise ArgumentException;

public static UInt32 ToUInt32 (Int64 value)

requires value >= 0 otherwise OverflowException;

requires value <= 0xFFFFFFFF otherwise OverflowException;

public static [uint](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.UInt32) [**ToUInt32**](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Convert/ToUInt32(Double):UInt32)([double](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Double) value)

{

if ((value < -0.5) || (value >= 4294967295.5))

{

throw new [OverflowException](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.OverflowException/.ctor(String))([Environment](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment).[GetResourceString](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment/GetResourceString(String):String)("Overflow\_UInt32"));

}

[uint](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.UInt32) **num** = ([uint](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.UInt32" \o "System.UInt32)) value;

[double](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Double) **num2** = value - num;

if ((num2 > 0.5) || ((num2 == 0.5) && ((num & 1) != 0)))

{

num++;

}

return num;

}

#### DateTime

*Use linear congruences?*

public static int DaysInMonth (int year, int month)

requires month >= 1 otherwise ArgumentOutOfRangeException;

requires month <= 12 otherwise ArgumentOutOfRangeException;

|  |  |  |
| --- | --- | --- |
| public static [bool](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Boolean) [**IsLeapYear**](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.DateTime/IsLeapYear(Int32):Boolean)([int](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int32" \o "System.Int32) year)  {  if ((year < 1) || (year > 0x270f))  {  Throw new ([ArgumentOutOfRangeException](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.ArgumentOutOfRangeException/.ctor(String,String))("year",[Environment](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment).[GetResourceString](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment/GetResourceString(String):String)("ArgumentOutOfRange\_Year"));  }  if ((year % 4) != 0)  {  return false;  }  if ((year % 100) == 0)  {  return ((year % 400) == 0);  }  return true;  }  public DateTime (Int64 ticks)  requires ticks >= 0 otherwise ArgumentOutOfRangeException;  requires ticks <= 4097261567 otherwise ArgumentOutOfRangeException; Decimal *Conversion to/from other structs*  public Decimal (Int32[]! bits)  requires bits != null otherwise ArgumentNullException; requires bits.Length == 4 otherwise ArgumentException;Delegate *Nothing for me* StackTrace *Just*  public StackTrace (int skipFrames, bool fNeedFileInfo)  requires skipFrames >= 0 otherwise ArgumentOutOfRangeException; Enum Need value of strings?  public [string](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.String) [**ToString**](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Enum/ToString(String):String)([string](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.String) format)  {  if ((format == null) || (format.[Length](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.String/property:Length:Int32) == 0))  {  format = "G";  }  if ([string](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.String" \o "System.String).[Compare](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.String/Compare(String,String,System.StringComparison):Int32)(format, "G", [StringComparison](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.StringComparison).[OrdinalIgnoreCase](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.StringComparison/OrdinalIgnoreCase)) == 0)  {  return this.[ToString](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Object/ToString():String)();  }  if ([string](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.String" \o "System.String).[Compare](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.String/Compare(String,String,System.StringComparison):Int32)(format, "D", [StringComparison](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.StringComparison).[OrdinalIgnoreCase](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.StringComparison/OrdinalIgnoreCase)) == 0)  {  return this.[GetValue](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Enum/GetValue():Object)().[ToString](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Object/ToString():String" \o "string System.Object.ToString();)();  }  if ([string](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.String" \o "System.String).[Compare](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.String/Compare(String,String,System.StringComparison):Int32)(format, "X", [StringComparison](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.StringComparison).[OrdinalIgnoreCase](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.StringComparison/OrdinalIgnoreCase)) == 0)  {  return this.[ToHexString](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Enum/ToHexString():String)();  }  if ([string](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.String" \o "System.String).[Compare](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.String/Compare(String,String,System.StringComparison):Int32)(format, "F", [StringComparison](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.StringComparison).[OrdinalIgnoreCase](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.StringComparison/OrdinalIgnoreCase)) != 0)  {  throw new [FormatException](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.FormatException/.ctor(String))([Environment](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment).[GetResourceString](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment/GetResourceString(String):String)("Format\_InvalidEnumFormatSpecification"));  }  return [InternalFlagsFormat](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Enum/InternalFlagsFormat(System.Type,Object):String)(base.[GetType](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Object/GetType():System.Type)(), this.[GetValue](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Enum/GetValue():Object)());  }   |  | | --- | | *Test it:*  public static [IDictionary](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Collections.IDictionary) [**GetEnvironmentVariables**](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment/GetEnvironmentVariables():System.Collections.IDictionary)()  {  [char](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Char)[] **chArray** = [nativeGetEnvironmentCharArray](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment/nativeGetEnvironmentCharArray():Char%5b%5d)();  if (chArray == null)  {  throw new [OutOfMemoryException](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.OutOfMemoryException/.ctor())();  }  [Hashtable](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Collections.Hashtable) **hashtable** = new [Hashtable](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Collections.Hashtable/.ctor(Int32))(20);  [StringBuilder](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Text.StringBuilder) **builder** = new [StringBuilder](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Text.StringBuilder/.ctor())();  [bool](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Boolean) **flag** = true;  for ([int](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int32" \o "System.Int32) **i** = 0; i < chArray.[Length](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Array/property:Length:Int32); i++)  {  [int](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int32) **startIndex** = i;  while ((chArray[i] != '=') && (chArray[i] != '\0'))  {  i++;  }  if (chArray[i] != '\0')  {  if ((i - startIndex) == 0)  {  while (chArray[i] != '\0')  {  i++;  }  }  else  {  [string](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.String) **text** = new [string](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.String/.ctor(Char%5b%5d,Int32,Int32))(chArray, startIndex, i - startIndex);  i++;  [int](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int32) **num3** = i;  while (chArray[i] != '\0')  {  i++;  }  [string](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.String) **text2** = new [string](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.String/.ctor(Char%5b%5d,Int32,Int32))(chArray, num3, i - num3);  hashtable[text] = text2;  if (flag)  {  flag = false;  }  else  {  builder.[Append](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Text.StringBuilder/Append(Char):System.Text.StringBuilder)(';');  }  builder.[Append](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Text.StringBuilder/Append(String):System.Text.StringBuilder)(text);  }  }  }  new [EnvironmentPermission](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Security.Permissions.EnvironmentPermission/.ctor(System.Security.Permissions.EnvironmentPermissionAccess,String))([EnvironmentPermissionAccess](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Security.Permissions.EnvironmentPermissionAccess" \o "System.Security.Permissions.EnvironmentPermissionAccess).[Read](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Security.Permissions.EnvironmentPermissionAccess/Read), builder.[ToString](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Object/ToString():String)()).[Demand](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Security.CodeAccessPermission/Demand())();  return hashtable;  } |  |  | | --- | |  | |

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#### Exception

*Needs abstract domain for strings?*

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| --- |
| internal [void](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Void) [**InternalPreserveStackTrace**](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Exception/InternalPreserveStackTrace())()  {  [string](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.String) **stackTrace** = this.[StackTrace](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Exception/property:StackTrace:String);  if ((stackTrace != null) && (stackTrace.[Length](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.String/property:Length:Int32) > 0))  {  this.[\_remoteStackTraceString](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Exception/_remoteStackTraceString:String) = stackTrace + [Environment](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment).[NewLine](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment/property:NewLine:String);  }  this.[\_stackTrace](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Exception/_stackTrace:Object) = null;  this.[\_stackTraceString](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Exception/_stackTraceString:String) = null;  } |

#### GC

Needs floats and longs

|  |
| --- |
| public static [long](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int64) [**GetTotalMemory**](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.GC/GetTotalMemory(Boolean):Int64)([bool](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Boolean" \o "System.Boolean) forceFullCollection)  {  [float](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Single) **num4**;  [long](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int64) **num** = [nativeGetTotalMemory](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.GC/nativeGetTotalMemory():Int64)();  if (!forceFullCollection)  {  return num;  }  [int](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int32) **num2** = 20;  [long](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int64) **num3** = num;  do  {  [WaitForPendingFinalizers](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.GC/WaitForPendingFinalizers())();  [Collect](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.GC/Collect())();  num = num3;  num3 = [nativeGetTotalMemory](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.GC/nativeGetTotalMemory():Int64)();  num4 = (([float](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Single)) (num3 - num)) / (([float](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Single)) num);  }  while ((num2-- > 0) && ((-0.05 >= num4) || (num4 >= 0.05)));  return num3;  } |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| [[SecurityPermission](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Security.Permissions.SecurityPermissionAttribute/.ctor(System.Security.Permissions.SecurityAction)" \o "System.Security.Permissions.SecurityPermissionAttribute.SecurityPermissionAttribute(SecurityAction);)([SecurityAction](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Security.Permissions.SecurityAction" \o "System.Security.Permissions.SecurityAction).[LinkDemand](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Security.Permissions.SecurityAction/LinkDemand), [UnmanagedCode](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Security.Permissions.SecurityPermissionAttribute/property:UnmanagedCode:Boolean)=true)]  public static [void](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Void) [**RemoveMemoryPressure**](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.GC/RemoveMemoryPressure(Int64))([long](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int64) bytesAllocated)  {  if (bytesAllocated <= 0)  {  throw new [ArgumentOutOfRangeException](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.ArgumentOutOfRangeException/.ctor(String,String))("bytesAllocated", [Environment](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment).[GetResourceString](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment/GetResourceString(String):String)("ArgumentOutOfRange\_NeedPosNum"));  }  if ((4 == [IntPtr](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IntPtr).[Size](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IntPtr/property:Size:Int32)) && (bytesAllocated > 0x7fffffff))  {  throw new [ArgumentOutOfRangeException](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.ArgumentOutOfRangeException/.ctor(String,String))("bytesAllocated", [Environment](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment).[GetResourceString](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment/GetResourceString(String):String)("ArgumentOutOfRange\_MustBeNonNegInt32"));  }  [nativeRemoveMemoryPressure](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.GC/nativeRemoveMemoryPressure(UInt64))(([ulong](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.UInt64" \o "System.UInt64)) bytesAllocated);  } GUID *Simple bounds* ICloneable *Nothing* IComparable *Nothing* IEquatable *Nothing* Int32 *Nothing* Int64 *Nothing* Math *Simple arithmetic and overflow-checking*  private static [long](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int64) [**AbsHelper**](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Math/AbsHelper(Int64):Int64)([long](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int64) value)  {  if (value == -9223372036854775808)  {  throw new [OverflowException](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.OverflowException/.ctor(String))([Environment](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment).[GetResourceString](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment/GetResourceString(String):String)("Overflow\_NegateTwosCompNum"));  }  return -value;  } MissingMemberException *Not-Null* NotFiniteNumberException *Not-null* Object *Not-null* Operating System *Not-null* Random *Arithmetic and floating points* String *Some “preprocessing” on strings? For instance “string S is not empty” == “S.Length > 0”*  *Contains postconditions(Or is the Spec# version that has them?)*  public int Length  {  get  ensures result >= 0;  }  *Needs enum:*   |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | [[Serializable](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.SerializableAttribute/.ctor()" \o "System.SerializableAttribute.SerializableAttribute();), [ComVisible](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Runtime.InteropServices.ComVisibleAttribute/.ctor(Boolean))(true), [Flags](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.FlagsAttribute/.ctor())]  public enum [**CompareOptions**](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Globalization.CompareOptions)  {  [**IgnoreCase**](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Globalization.CompareOptions/IgnoreCase) = 1,  [**IgnoreKanaType**](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Globalization.CompareOptions/IgnoreKanaType) = 8,  [**IgnoreNonSpace**](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Globalization.CompareOptions/IgnoreNonSpace) = 2,  [**IgnoreSymbols**](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Globalization.CompareOptions/IgnoreSymbols) = 4,  [**IgnoreWidth**](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Globalization.CompareOptions/IgnoreWidth) = 0x10,  [**None**](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Globalization.CompareOptions/None) = 0,  [**Ordinal**](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Globalization.CompareOptions/Ordinal) = 0x40000000,  [**OrdinalIgnoreCase**](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Globalization.CompareOptions/OrdinalIgnoreCase) = 0x10000000,  [**StringSort**](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Globalization.CompareOptions/StringSort) = 0x20000000  } Type *Not null, and TargetInvocationException (see code below)*   |  |  | | --- | --- | | [TargetInvocationException](urn:member:T:System.Reflection.TargetInvocationException) | A static initializer is invoked and throws an exception. | | **Exception** | **Condition** | | [InvalidOperationException](urn:member:T:System.InvalidOperationException) | The current type is not a generic type. That is, [IsGenericType](urn:member:P:System.Type.IsGenericType) returns false. |  |  | | --- | | public virtual [Type](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Type)[] [**FindInterfaces**](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Type/FindInterfaces(System.Reflection.TypeFilter,Object):System.Type%5b%5d)([TypeFilter](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Reflection.TypeFilter" \o "System.Reflection.TypeFilter) filter, [object](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Object) filterCriteria)  {  if (filter == null)  {  throw new [ArgumentNullException](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.ArgumentNullException/.ctor(String))("filter");  }  [Type](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Type)[] **interfaces** = this.[GetInterfaces](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Type/GetInterfaces():System.Type%5b%5d)();  [int](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int32) **num** = 0;  for ([int](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int32" \o "System.Int32) **i** = 0; i < interfaces.[Length](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Array/property:Length:Int32); i++)  {  if (!filter(interfaces[i], filterCriteria))  {  interfaces[i] = null;  }  else  {  num++;  }  }  if (num == interfaces.[Length](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Array/property:Length:Int32))  {  return interfaces;  }  [Type](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Type)[] **typeArray2** = new [Type](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Type)[num];  num = 0;  for ([int](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int32" \o "System.Int32) **j** = 0; j < interfaces.[Length](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Array/property:Length:Int32); j++)  {  if (interfaces[j] != null)  {  typeArray2[num++] = interfaces[j];  }  }  return typeArray2;  } |  |  | | --- | | public [Type](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Type) [**GetInterface**](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Type/GetInterface(String):System.Type)([string](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.String) name)  {  return this.[GetInterface](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Type/GetInterface(String,Boolean):System.Type)(name, false);  } | |  |  |  | | --- | --- | |  | | | [AmbiguousMatchException](urn:member:T:System.Reflection.AmbiguousMatchException) | The current [Type](urn:member:T:System.Type) represents a type that implements the same generic interface with different type arguments. | | [TypeLoadException](urn:member:T:System.TypeLoadException) | throwOnError is true and the type is not found. -or-typeName represents an array of [TypedReference](urn:member:T:System.TypedReference). This is a change from the behavior in the .NET Framework versions 1.0 and 1.1, which was to return a null reference. | | [COMException](urn:member:T:System.Runtime.InteropServices.COMException) | The specified ProgID is not registered. | | [MethodAccessException](urn:member:T:System.MethodAccessException) | The specified member is a class initializer. | | [MissingFieldException](urn:member:T:System.MissingFieldException) | The field or property cannot be found. |  TypedReference *Nullness, some bounds checking, and* [InvalidCastException](urn:member:T:System.InvalidCastException) *for the code*  [[CLSCompliant](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.CLSCompliantAttribute/.ctor(Boolean)" \o "System.CLSCompliantAttribute.CLSCompliantAttribute(bool isCompliant);)(false)]  public static unsafe [void](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Void) [**SetTypedReference**](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.TypedReference/SetTypedReference(System.TypedReference,Object))([TypedReference](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.TypedReference" \o "System.TypedReference) target, [object](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Object) value)  {  [InternalSetTypedReference](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.TypedReference/InternalSetTypedReference(Void*,Object))(([void](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Void)\*) &target, value);  } TypeLoadException *Nothing interesting* Version *Simple arithmetic and needs parsing of strings*   |  |  | | --- | --- | | [FormatException](urn:member:T:System.FormatException) | At least one component of version does not parse to an integer. |   public [**Version**](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Version/.ctor(String))([string](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.String) version)  {  this.[\_Build](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Version/_Build:Int32) = -1;  this.[\_Revision](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Version/_Revision:Int32) = -1;  if (version == null)  {  throw new [ArgumentNullException](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.ArgumentNullException/.ctor(String))("version");  }  [string](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.String)[] textArray = version.[Split](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.String/Split(Char%5b%5d):String%5b%5d)(new [char](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Char)[] { '.' });  [int](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int32) length = textArray.[Length](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Array/property:Length:Int32);  if ((length < 2) || (length > 4))  {  throw new [ArgumentException](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.ArgumentException/.ctor(String))([Environment](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment).[GetResourceString](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment/GetResourceString(String):String)("Arg\_VersionString"));  }  this.[\_Major](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Version/_Major:Int32) = [int](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int32).[Parse](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int32/Parse(String,System.IFormatProvider):Int32)(textArray[0], [CultureInfo](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Globalization.CultureInfo).[InvariantCulture](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Globalization.CultureInfo/property:InvariantCulture:System.Globalization.CultureInfo));  if (this.[\_Major](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Version/_Major:Int32) < 0)  {  throw new [ArgumentOutOfRangeException](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.ArgumentOutOfRangeException/.ctor(String,String))("version", [Environment](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment).[GetResourceString](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment/GetResourceString(String):String)("ArgumentOutOfRange\_Version"));  }  this.[\_Minor](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Version/_Minor:Int32) = [int](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int32).[Parse](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int32/Parse(String,System.IFormatProvider):Int32)(textArray[1], [CultureInfo](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Globalization.CultureInfo).[InvariantCulture](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Globalization.CultureInfo/property:InvariantCulture:System.Globalization.CultureInfo));  if (this.[\_Minor](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Version/_Minor:Int32) < 0)  {  throw new [ArgumentOutOfRangeException](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.ArgumentOutOfRangeException/.ctor(String,String))("version", [Environment](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment).[GetResourceString](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment/GetResourceString(String):String)("ArgumentOutOfRange\_Version"));  }  length -= 2;  if (length > 0)  {  this.[\_Build](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Version/_Build:Int32) = [int](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int32).[Parse](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int32/Parse(String,System.IFormatProvider):Int32)(textArray[2], [CultureInfo](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Globalization.CultureInfo).[InvariantCulture](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Globalization.CultureInfo/property:InvariantCulture:System.Globalization.CultureInfo));  if (this.[\_Build](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Version/_Build:Int32) < 0)  {  throw new [ArgumentOutOfRangeException](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.ArgumentOutOfRangeException/.ctor(String,String))("build", [Environment](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment).[GetResourceString](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment/GetResourceString(String):String)("ArgumentOutOfRange\_Version"));  }  length--;  if (length > 0)  {  this.[\_Revision](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Version/_Revision:Int32) = [int](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int32).[Parse](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int32/Parse(String,System.IFormatProvider):Int32)(textArray[3], [CultureInfo](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Globalization.CultureInfo).[InvariantCulture](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Globalization.CultureInfo/property:InvariantCulture:System.Globalization.CultureInfo));  if (this.[\_Revision](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Version/_Revision:Int32) < 0)  {  throw new [ArgumentOutOfRangeException](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.ArgumentOutOfRangeException/.ctor(String,String))("revision", [Environment](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment).[GetResourceString](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment/GetResourceString(String):String)("ArgumentOutOfRange\_Version"));  }  }  }  } |

|  |
| --- |
|  |

#### System.Collections

#### ArrayList

public int Capacity

{

[Pure]

get

ensures result >= 0;

set

requires value >= this.Count otherwise ArgumentOutOfRangeException;

}

public void Sort (int index, int count, IComparer comparer)

requires index >= 0 otherwise ArgumentOutOfRangeException;

requires count >= 0 otherwise ArgumentOutOfRangeException;

requires index + count <= Count otherwise ArgumentException;

requires ! this.IsReadOnly otherwise NotSupportedException;

public void SetRange (int index, ICollection! c)

requires c != null otherwise ArgumentNullException;

requires index >= 0 otherwise ArgumentOutOfRangeException;

requires **index + c.Count <= Count** otherwise ArgumentOutOfRangeException;

requires ! this.IsReadOnly otherwise NotSupportedException;

public int LastIndexOf (object value, int startIndex, int count)

requires 0 <= count otherwise ArgumentOutOfRangeException;

requires 0 <= startIndex otherwise ArgumentOutOfRangeException;

requires startIndex + count <= Count otherwise ArgumentOutOfRangeException;

ensures -1 <= result && result < this.Count;

public int BinarySearch (int index, int count, object value, IComparer comparer)

requires index >= 0 otherwise ArgumentOutOfRangeException;

requires count >= 0 otherwise ArgumentOutOfRangeException;

requires index + count <= Count otherwise ArgumentException;

ensures -1 <= result && result < this.Count;

#### BitArray

*just length>=0 and value != null*

inside CopyTo:

[byte](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Byte)[] **buffer** = ([byte](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Byte)[]) array;

for ([int](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int32" \o "System.Int32) **i** = 0; i < ((this.[m\_length](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Collections.BitArray/m_length:Int32) + 7) / 8); i++)

{

buffer[index + i] = ([byte](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Byte)) ((this.[m\_array](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Collections.BitArray/m_array:Int32%5b%5d)[i / 4] >> ((i % 4) \* 8)) & 0xff);

}

for ([int](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int32" \o "System.Int32) **i** = 0; i < this.[m\_length](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Collections.BitArray/m_length:Int32); i++)

{

flagArray[index + i] = ((this.[m\_array](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Collections.BitArray/m_array:Int32%5b%5d)[i / 0x20] >> (i % 0x20)) & 1) != 0;

}

#### CaseInsensitiveComparer

*Nothing*

#### CaseInsensitiveHashedCodeComparer

*Nothing interesting (just index >= 0)*

#### Comparer

*Nothing*

#### DictionaryEntry

Nothing

#### System.Collections.Generic

#### Dictionary

*Capacity < 0, index < length, etc.*

*Most of the properties (the element is already there?) cannot be discoered*

#### ICollection

*Skipped*

#### IDictionary

*Skipped*

#### IEnumerable

*Skipped*

#### IEqualityComparer

*Skipped*

#### IList

*Skipped*

#### ICollection

*Skipped*

#### Queue

All like this one:

public Queue (int capacity, Single growFactor)

requires capacity >= 0 otherwise ArgumentOutOfRangeException;

requires growFactor >= 0 otherwise ArgumentOutOfRangeException;

requires growFactor <= 0 otherwise ArgumentOutOfRangeException;

But with reflector I get:

public [**Queue**](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Collections.Queue/.ctor(Int32,Single))([int](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int32" \o "System.Int32) capacity, [float](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Single) growFactor)

{

if (capacity < 0)

{

throw new [ArgumentOutOfRangeException](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.ArgumentOutOfRangeException/.ctor(String,String))("capacity", [Environment](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment).[GetResourceString](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment/GetResourceString(String):String)("ArgumentOutOfRange\_NeedNonNegNum"));

}

if ((growFactor < 1) || (growFactor > 10))

{

throw new [ArgumentOutOfRangeException](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.ArgumentOutOfRangeException/.ctor(String,String))("growFactor", [Environment](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment).[GetResourceString](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment/GetResourceString(String,Object%5b%5d):String)("ArgumentOutOfRange\_QueueGrowFactor", new [object](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Object)[] { 1, 10 }));

}

this.[\_array](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Collections.Queue/_array:Object%5b%5d) = new [object](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Object)[capacity];

this.[\_head](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Collections.Queue/_head:Int32) = 0;

this.[\_tail](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Collections.Queue/_tail:Int32) = 0;

this.[\_size](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Collections.Queue/_size:Int32) = 0;

this.[\_growFactor](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Collections.Queue/_growFactor:Int32) = ([int](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int32" \o "System.Int32)) (growFactor \* 100f);

}

#### SortedList

*initialCapacity >=0, index >= 0 etc*

#### Stack

public void Push (object obj);

ensures this.Count == old(this.Count)+1;

#### System.Globalization

#### Calendar

*Needs handling of enums*

public int GetWeekOfYear (DateTime time, CalendarWeekRule rule, DayOfWeek firstDayOfWeek)

requires (int)firstDayOfWeek >= 0 otherwise ArgumentOutOfRangeException;

requires (int)firstDayOfWeek <= 6 otherwise ArgumentOutOfRangeException;

#### CompareInfo

*Needs handling of enums*

public int IndexOf (string! source, Char value, int startIndex)

requires source != null otherwise ArgumentNullException;

requires startIndex <= source.Length otherwise ArgumentOutOfRangeException;

public bool IsSuffix (string! source, string! suffix, CompareOptions options)

requires source != null otherwise ArgumentNullException;

requires suffix != null otherwise ArgumentNullException;

requires (int)((int)options & -32) == 0 || (int)options == 1073741824 otherwise ArgumentException;

#### CultureInfo

*Nothing particular?*

#### DateTimeFormatInfo

public string GetAbbreviatedMonthName (int month)

requires month >= 1 otherwise ArgumentOutOfRangeException;

requires month <= 13 otherwise ArgumentOutOfRangeException;

#### GregorianCalendar

*Simple bounds*

#### HebrewCalendar

*Simple bounds*

public int ToFourDigitYear (int year)

requires year < 100 || year <= 6000 otherwise ArgumentOutOfRangeException;

requires year >= 5343 otherwise ArgumentOutOfRangeException;

#### HijriCalendar

*Simple bounds*

#### JapaneseCalendar

*Simple bounds*

#### JulianCalendar

*Simple bounds*

#### KoreanCalendar

*Simple bounds*

#### NumberFormatInfo

*Simple bounds*

#### RegionalInfo

*Nothing*

#### SortKey

*Nothing*

#### StringInfo

*Simple bounds*

#### TaiwanCalendar

*Simple bounds*

#### TextInfo

*Nothing*

#### ThaiBuddistCalendar

*Simple bounds*

#### System.IO

#### BinaryReader

*Simple bound, bitwise operations*

public int Read (Char[]! buffer, int index, int count)

requires buffer != null otherwise ArgumentNullException;

requires index >= 0 otherwise ArgumentOutOfRangeException;

requires count >= 0 otherwise ArgumentOutOfRangeException;

requires (buffer.Length - index) >= count otherwise ArgumentException;

protected internal [int](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int32) [**Read7BitEncodedInt**](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.BinaryReader/Read7BitEncodedInt():Int32)()

{

[byte](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Byte) **num3**;

[int](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int32) **num** = 0;

[int](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int32) **num2** = 0;

do

{

if (num2 == 0x23)

{

throw new [FormatException](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.FormatException/.ctor(String))([Environment](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment).[GetResourceString](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment/GetResourceString(String):String)("Format\_Bad7BitInt32"));

}

num3 = this.[ReadByte](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.BinaryReader/ReadByte():Byte)();

num |= (num3 & 0x7f) << num2;

num2 += 7;

}

while ((num3 & 0x80) != 0);

return num;

}

#### BinaryWriter

*Similar to the reader*

#### BufferedStream

*Bounds checking*

public override [void](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Void) [**WriteByte**](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.BufferedStream/WriteByte(Byte))([byte](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Byte) value)

{

if (this.[\_s](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.BufferedStream/_s:System.IO.Stream) == null)

{

[\_\_Error](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.__Error).[StreamIsClosed](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.__Error/StreamIsClosed()" \o "void System.IO.__Error.StreamIsClosed();)();

}

if (this.[\_writePos](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.BufferedStream/_writePos:Int32) == 0)

{

if (!this.[\_s](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.BufferedStream/_s:System.IO.Stream).[CanWrite](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.Stream/property:CanWrite:Boolean" \o "bool System.IO.Stream.CanWrite { ... }))

{

[\_\_Error](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.__Error).[WriteNotSupported](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.__Error/WriteNotSupported()" \o "void System.IO.__Error.WriteNotSupported();)();

}

if (this.[\_readPos](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.BufferedStream/_readPos:Int32) < this.[\_readLen](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.BufferedStream/_readLen:Int32" \o "int System.IO.BufferedStream._readLen;))

{

this.[FlushRead](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.BufferedStream/FlushRead())();

}

else

{

this.[\_readPos](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.BufferedStream/_readPos:Int32) = 0;

this.[\_readLen](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.BufferedStream/_readLen:Int32) = 0;

}

if (this.[\_buffer](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.BufferedStream/_buffer:Byte%5b%5d) == null)

{

this.[\_buffer](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.BufferedStream/_buffer:Byte%5b%5d) = new [byte](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Byte)[this.[\_bufferSize](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.BufferedStream/_bufferSize:Int32)];

}

}

if (this.[\_writePos](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.BufferedStream/_writePos:Int32) == this.[\_bufferSize](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.BufferedStream/_bufferSize:Int32))

{

this.[FlushWrite](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.BufferedStream/FlushWrite())();

}

this.[\_buffer](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.BufferedStream/_buffer:Byte%5b%5d)[this.[\_writePos](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.BufferedStream/_writePos:Int32)++] = value;

}

#### Directory

*Simple bounds checking*

#### DirectoryInfo

*Nothing for me*

#### File

*Property as !=0*

public static void Move (string! sourceFileName, string! destFileName)

requires sourceFileName != null otherwise ArgumentNullException;

requires destFileName != null otherwise ArgumentNullException;

requires sourceFileName.Length != 0 otherwise ArgumentException;

requires destFileName.Length != 0 otherwise ArgumentException;

#### FileInfo

*Property as !=0*

#### FileStream

*Simple bounds checking and Typestates?*

public IAsyncResult BeginWrite (Byte[]! array, int offset, int numBytes, AsyncCallback userCallback, object stateObject)

requires array != null otherwise ArgumentNullException;

requires offset >= 0 otherwise ArgumentOutOfRangeException;

requires numBytes >= 0 otherwise ArgumentOutOfRangeException;

requires (array.Length - offset) >= numBytes otherwise ArgumentException;

#### FileSystemInfo

*Not interesting*

#### IsolatedStorageFile

*Just non-null*

#### IsolatedStorageFileStream

*Just non-null*

#### MemoryStream

*Bounds checking*

#### Path

*Simple arithmetic*

#### Stream

*Nothing particular*

#### StreamReader

*Bounds checking and != 0*

#### StreamWriter

*Bounds checking*

#### StringReader

*Bounds checking and class invariants (see the code for Read)*

#### StringWriter

*Bounds checking*

*Cosa fare con le chiamate a metodi native, e.g. in Buffer.*

[[MethodImpl](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Runtime.CompilerServices.MethodImplAttribute/.ctor(System.Runtime.CompilerServices.MethodImplOptions)" \o "System.Runtime.CompilerServices.MethodImplAttribute.MethodImplAttribute(MethodImplOptions);)([MethodImplOptions](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Runtime.CompilerServices.MethodImplOptions" \o "System.Runtime.CompilerServices.MethodImplOptions).[InternalCall](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Runtime.CompilerServices.MethodImplOptions/InternalCall))]

internal static extern [void](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Void) [**InternalBlockCopy**](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Buffer/InternalBlockCopy(System.Array,Int32,System.Array,Int32,Int32))([Array](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Array) src, [int](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int32) srcOffset, [Array](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Array) dst, [int](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int32) dstOffset, [int](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int32) count);

#### TextReader

*Bounds checking*

#### TextWriter

*Bounds checking*

#### System.Reflection

#### Assembly

*Not-null*

#### AssemblyFileVersion

*Not-null*

#### AssemblyName

*Not-null*

#### ConstructorInfo

*Not-null*

#### Emit.AssemblyBuilder

*Not-null*

#### Emit.ConstructorBuilder

*Simple Bounds checking*

#### Emit.EventBuilder

*Not-null*

#### Emit.FieldBuilder

*Not-null*

#### Emit.ILGenerator

*Simple bounds checking and != 0*

#### Emit.MethodBuilder

*Simple bounds checking*

#### Emit.MethodRental

*Simple bounds checking*

#### Emit.ModuleBuilder

*Not-null*

#### Emit.ParameterBuilder

*Not-null*

#### Emit.PropertyBuilder

*Not-null*

#### Emit.SignatureHelper

*Enum*

internal static [SignatureHelper](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Reflection.Emit.SignatureHelper) [**GetMethodSigHelper**](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Reflection.Emit.SignatureHelper/GetMethodSigHelper(System.Reflection.Module,System.Reflection.CallingConventions,Int32,System.Type,System.Type%5b%5d,System.Type%5b%5d,System.Type%5b%5d,System.Type%5b%5d%5b%5d,System.Type%5b%5d%5b%5d):System.Reflection.Emit.SignatureHelper)([Module](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Reflection.Module) scope, [CallingConventions](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Reflection.CallingConventions) callingConvention, [int](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int32) cGenericParam, [Type](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Type) returnType, [Type](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Type)[] requiredReturnTypeCustomModifiers, [Type](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Type)[] optionalReturnTypeCustomModifiers, [Type](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Type)[] parameterTypes, [Type](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Type)[][] requiredParameterTypeCustomModifiers, [Type](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Type)[][] optionalParameterTypeCustomModifiers)

{

if (returnType == null)

{

returnType = typeof([void](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Void));

}

[int](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int32) **num** = 0;

if ((callingConvention & [CallingConventions](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Reflection.CallingConventions).[VarArgs](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Reflection.CallingConventions/VarArgs)) == [CallingConventions](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Reflection.CallingConventions).[VarArgs](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Reflection.CallingConventions/VarArgs))

{

num = 5;

}

if (cGenericParam > 0)

{

num |= 0x10;

}

if ((callingConvention & [CallingConventions](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Reflection.CallingConventions).[HasThis](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Reflection.CallingConventions/HasThis)) == [CallingConventions](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Reflection.CallingConventions).[HasThis](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Reflection.CallingConventions/HasThis))

{

num |= 0x20;

}

[SignatureHelper](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Reflection.Emit.SignatureHelper) **helper** = new [SignatureHelper](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Reflection.Emit.SignatureHelper/.ctor(System.Reflection.Module,Int32,Int32,System.Type,System.Type%5b%5d,System.Type%5b%5d))(scope, num, cGenericParam, returnType, requiredReturnTypeCustomModifiers, optionalReturnTypeCustomModifiers);

helper.[AddArguments](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Reflection.Emit.SignatureHelper/AddArguments(System.Type%5b%5d,System.Type%5b%5d%5b%5d,System.Type%5b%5d%5b%5d))(parameterTypes, requiredParameterTypeCustomModifiers, optionalParameterTypeCustomModifiers);

return helper;

}

#### Emit.TypeBuilder

*Not-null*

#### Emit.UnmanagedMarshall

*Enum*

#### MemberInfo

*Not interesting*

#### MethodBase

*Not interesting - check if a handle makes sense or not?*

#### Module

*Not null*

#### ParameterInfo

*Not interesting*

#### ParameterModifier

*Simple bound checking (>0)*

#### Pointer

*Not interesting*

#### Property

*Not interesting (the interesting methods are abstract methods)*

#### ReflectionTypeLoadException

*Not interesting*

#### StrongNameKeyPair

*Not null*

#### TypeDelegator

*Not interesting*

#### System.Resources

#### NeutralResourceLanguageAttribute

*Nothing*

#### ResourceManager

*Few int comparisons*

#### Resource

*Inside methods need enums and integers*

|  |
| --- |
| internal unsafe [object](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Object) [**LoadObjectV2**](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceReader/LoadObjectV2(Int32,System.Resources.ResourceTypeCode&):Object)([int](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int32" \o "System.Int32) pos, out [ResourceTypeCode](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceTypeCode) typeCode)  {  this.[\_store](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceReader/_store:System.IO.BinaryReader).[BaseStream](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.BinaryReader/property:BaseStream:System.IO.Stream).[Seek](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.Stream/Seek(Int64,System.IO.SeekOrigin):Int64)(this.[\_dataSectionOffset](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceReader/_dataSectionOffset:Int64) + pos, [SeekOrigin](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.SeekOrigin).[Begin](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.SeekOrigin/Begin));  typeCode = ([ResourceTypeCode](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceTypeCode" \o "System.Resources.ResourceTypeCode)) this.[\_store](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceReader/_store:System.IO.BinaryReader).[Read7BitEncodedInt](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.BinaryReader/Read7BitEncodedInt():Int32)();  switch (typeCode)  {  case [ResourceTypeCode](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceTypeCode).[Null](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceTypeCode/Null):  return null;  case [ResourceTypeCode](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceTypeCode).[String](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceTypeCode/String):  return this.[\_store](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceReader/_store:System.IO.BinaryReader).[ReadString](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.BinaryReader/ReadString():String)();  case [ResourceTypeCode](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceTypeCode).[Boolean](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceTypeCode/Boolean):  return this.[\_store](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceReader/_store:System.IO.BinaryReader).[ReadBoolean](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.BinaryReader/ReadBoolean():Boolean)();  case [ResourceTypeCode](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceTypeCode).[Char](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceTypeCode/Char):  return ([char](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Char)) this.[\_store](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceReader/_store:System.IO.BinaryReader).[ReadUInt16](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.BinaryReader/ReadUInt16():UInt16)();  case [ResourceTypeCode](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceTypeCode).[Byte](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceTypeCode/Byte):  return this.[\_store](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceReader/_store:System.IO.BinaryReader).[ReadByte](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.BinaryReader/ReadByte():Byte)();  case [ResourceTypeCode](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceTypeCode).[SByte](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceTypeCode/SByte):  return this.[\_store](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceReader/_store:System.IO.BinaryReader).[ReadSByte](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.BinaryReader/ReadSByte():SByte)();  case [ResourceTypeCode](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceTypeCode).[Int16](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceTypeCode/Int16):  return this.[\_store](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceReader/_store:System.IO.BinaryReader).[ReadInt16](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.BinaryReader/ReadInt16():Int16)();  case [ResourceTypeCode](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceTypeCode).[UInt16](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceTypeCode/UInt16):  return this.[\_store](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceReader/_store:System.IO.BinaryReader).[ReadUInt16](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.BinaryReader/ReadUInt16():UInt16)();  case [ResourceTypeCode](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceTypeCode).[Int32](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceTypeCode/Int32):  return this.[\_store](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceReader/_store:System.IO.BinaryReader).[ReadInt32](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.BinaryReader/ReadInt32():Int32)();  case [ResourceTypeCode](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceTypeCode).[UInt32](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceTypeCode/UInt32):  return this.[\_store](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceReader/_store:System.IO.BinaryReader).[ReadUInt32](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.BinaryReader/ReadUInt32():UInt32)();  case [ResourceTypeCode](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceTypeCode).[Int64](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceTypeCode/Int64):  return this.[\_store](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceReader/_store:System.IO.BinaryReader).[ReadInt64](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.BinaryReader/ReadInt64():Int64)();  case [ResourceTypeCode](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceTypeCode).[UInt64](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceTypeCode/UInt64):  return this.[\_store](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceReader/_store:System.IO.BinaryReader).[ReadUInt64](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.BinaryReader/ReadUInt64():UInt64)();  case [ResourceTypeCode](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceTypeCode).[Single](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceTypeCode/Single):  return this.[\_store](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceReader/_store:System.IO.BinaryReader).[ReadSingle](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.BinaryReader/ReadSingle():Single)();  case [ResourceTypeCode](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceTypeCode).[Double](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceTypeCode/Double):  return this.[\_store](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceReader/_store:System.IO.BinaryReader).[ReadDouble](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.BinaryReader/ReadDouble():Double)();  case [ResourceTypeCode](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceTypeCode).[Decimal](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceTypeCode/Decimal):  return this.[\_store](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceReader/_store:System.IO.BinaryReader).[ReadDecimal](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.BinaryReader/ReadDecimal():System.Decimal)();  case [ResourceTypeCode](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceTypeCode).[DateTime](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceTypeCode/DateTime):  return [DateTime](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.DateTime).[FromBinary](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.DateTime/FromBinary(Int64):System.DateTime)(this.[\_store](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceReader/_store:System.IO.BinaryReader).[ReadInt64](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.BinaryReader/ReadInt64():Int64)());  case [ResourceTypeCode](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceTypeCode).[TimeSpan](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceTypeCode/TimeSpan):  return new [TimeSpan](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.TimeSpan/.ctor(Int64))(this.[\_store](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceReader/_store:System.IO.BinaryReader).[ReadInt64](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.BinaryReader/ReadInt64():Int64)());  case [ResourceTypeCode](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceTypeCode).[ByteArray](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceTypeCode/ByteArray):  {  [int](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int32) **count** = this.[\_store](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceReader/_store:System.IO.BinaryReader).[ReadInt32](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.BinaryReader/ReadInt32():Int32)();  if (this.[\_ums](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceReader/_ums:System.IO.UnmanagedMemoryStream) == null)  {  return this.[\_store](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceReader/_store:System.IO.BinaryReader).[ReadBytes](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.BinaryReader/ReadBytes(Int32):Byte%5b%5d)(count);  }  if (count > (this.[\_ums](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceReader/_ums:System.IO.UnmanagedMemoryStream).[Length](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.Stream/property:Length:Int64) - this.[\_ums](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceReader/_ums:System.IO.UnmanagedMemoryStream).[Position](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.Stream/property:Position:Int64)))  {  throw new [BadImageFormatException](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.BadImageFormatException/.ctor(String))([Environment](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment).[GetResourceString](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment/GetResourceString(String):String)("BadImageFormat\_ResourceDataTooLong"));  }  [byte](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Byte)[] **buffer** = new [byte](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Byte)[count]; How do I know that count >= 0 ?  this.[\_ums](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceReader/_ums:System.IO.UnmanagedMemoryStream).[Read](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.Stream/Read(Byte%5b%5d,Int32,Int32):Int32)(buffer, 0, count);  return buffer;  }  case [ResourceTypeCode](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceTypeCode).[Stream](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceTypeCode/Stream):  {  [int](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int32) **num4** = this.[\_store](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceReader/_store:System.IO.BinaryReader).[ReadInt32](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.BinaryReader/ReadInt32():Int32)();  if (this.[\_ums](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceReader/_ums:System.IO.UnmanagedMemoryStream) != null)  {  if (num4 > (this.[\_ums](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceReader/_ums:System.IO.UnmanagedMemoryStream).[Length](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.Stream/property:Length:Int64) - this.[\_ums](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceReader/_ums:System.IO.UnmanagedMemoryStream).[Position](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.Stream/property:Position:Int64)))  {  throw new [BadImageFormatException](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.BadImageFormatException/.ctor(String))([Environment](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment).[GetResourceString](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment/GetResourceString(String):String)("BadImageFormat\_ResourceDataTooLong"));  }  return new [UnmanagedMemoryStream](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.UnmanagedMemoryStream/.ctor(Byte*,Int64,Int64,System.IO.FileAccess,Boolean))(this.[\_ums](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceReader/_ums:System.IO.UnmanagedMemoryStream).[PositionPointer](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.UnmanagedMemoryStream/property:PositionPointer:Byte*), ([long](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int64)) num4, ([long](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int64)) num4, [FileAccess](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.FileAccess).[Read](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.FileAccess/Read), true);  }  return new [PinnedBufferMemoryStream](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.PinnedBufferMemoryStream/.ctor(Byte%5b%5d))(this.[\_store](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceReader/_store:System.IO.BinaryReader).[ReadBytes](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IO.BinaryReader/ReadBytes(Int32):Byte%5b%5d)(num4));  }  }  [int](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int32) **typeIndex** = (([int](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int32" \o "System.Int32)) typeCode) - 0x40;  return this.[DeserializeObject](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Resources.ResourceReader/DeserializeObject(Int32):Object)(typeIndex);  } |

|  |
| --- |
|  |

#### ResourceReader

*Not-Null*

#### ResourceSet

*Not-Null*

#### SatelliteContractVersionAttribute

*Not-Null*

#### System.Runtime

#### InteropServices.Marshall

*Not-Null*

#### InteropServices.RegistrationServices

*Not-Null*

#### InteropServices.TypeLibConverter

*Simple arithmetic, bounds and enum flags*

#### Remoting.ActivatedClientTypeEntry

*Not-Null*

#### Remoting.ActivatedServiceType

*Not-Null*

#### Remoting.Activation.UrlAttribute

*Not-Null*

#### Remoting.Contexts.Context

*Not-Null*

#### Remoting.Contexts.ContextAttribute

*Not-Null*

#### Remoting.Contexts.SynchronizationAttribute

*Not-Null*

#### Remoting.Messaging.LogicalCallContext

*Not-Null*

#### Remoting.Messaging.MethodResponse

*>= 0*

|  |
| --- |
| *Below it does not checks for argNum???*  *http://msdn2.microsoft.com/enus/library/system.runtime.remoting.messaging.methodresponse.getarg.aspx*  public [object](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Object) [**GetArg**](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Runtime.Remoting.Messaging.MethodResponse/GetArg(Int32):Object)([int](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int32" \o "System.Int32) argNum)  {  return this.[outArgs](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Runtime.Remoting.Messaging.MethodResponse/outArgs:Object%5b%5d)[argNum];  } |

|  |
| --- |
|  |

#### Remoting.Messaging.RemotingSurrogateSelector

*Not-Null*

#### Remoting.Messaging.ReturnMessage

*>= 0*

#### Remoting.ObjRef

*Not-Null*

#### Remoting.Proxies.ProxyAttribute

*Not interesting*

#### Remoting.RemotingServices

*Not-Null*

#### Remoting.WellKnownClientTypeEntry

*Not-Null*

#### Remoting.Messaging.WellKnownServiceTypeEntry

*Not-Null*

#### Serialization.FormatterConverter

*Not-Null*

#### Serialization.FormatterServices

*Basic arithmetic*

#### Serialization.ObjectIDGenerator

*Not-Null*

#### Serialization.ObjectManager

*>0 (see RecordFixup)*

#### Serialization.SerializationInfo

*Not-Null*

#### Serialization.SurrogateSelector

*Not-Null*

#### System.Security

#### CodeAccessPermission

*Not-Null*

#### Cryptography.AsymmetricSignatureDeformatter

*Not interesting (abstract methods)*

#### Cryptography.AsymmetricSignatureformatter

*Not interesting (abstract methods)*

#### Cryptography.CryptoAPITransform

*Bounds checking*

*There is a difference between the contracts in Spec#, the documentation of the method and the parameter validation*

*Check the origin of InputBlockSize, etc. in the code of TransformBlock*

*Preconditions for native code (ex. Buffer.InternalBlockCopy?)*

public int TransformBlock (Byte[]! inputBuffer, int inputOffset, int inputCount, Byte[]! outputBuffer, int outputOffset)

requires inputBuffer != null otherwise ArgumentNullException;

requires outputBuffer != null otherwise ArgumentNullException;

requires inputOffset >= 0 otherwise ArgumentOutOfRangeException;

requires inputCount > 0 otherwise ArgumentException;

requires inputCount <= inputBuffer.Length otherwise ArgumentException;

requires (inputBuffer.Length - inputCount) >= inputOffset otherwise ArgumentException;

#### Cryptography.CryptoConfig

*Not Null*

#### Cryptography.CryptoStream

*Array bounds*

#### Cryptography.DES

*Not interesting*

#### Cryptography.DSA

*Not interesting*

#### Cryptography.DSACryptoServiceProvider

*Not interesting*

#### Cryptography.DSASignatureDeformatter

*Not interesting*

#### Cryptography.FromBase64Transform

*Bounds checking*

#### Cryptography.HashAlgorithm

*Bounds checking*

#### Cryptography.MACTripleDES

*Not interesting*

#### Cryptography.PasswordDeriveBytes

*Simple bounds checking (keySize >= 0)*

#### Cryptography.RCS

*Simple Bounds checking*

#### Cryptography.RNGCryptoServiceProvider

*Not interesting*

#### Cryptography.RSA

*Not interesting*

#### Cryptography.RSACryptoServiceProvider

*Simple arithmetic equality*

#### Cryptography.RSAPKCS1SignatureDeformatter

*Not interesting*

#### Cryptography.RSAPKCS1SignatureFormatter

*Not interesting*

#### Cryptography.SignatureDescription

*Not interesting*

#### Cryptography.SymmetricAlgorithm

*Enums (as int)*

#### Cryptography.ToBase64Transform

*Bounds*

#### Cryptography.TripleDES

*Not interesting*

#### Permissions.EnvironmentPermission

*Enums (as int)*

#### Permissions.FileDialogPermission

*Enums (as int)*

#### Permissions.FileIOPermission

*Enums (as int)*

#### Permissions.IsolatedStoragePermission

*Enums (as int)*

#### Permissions.PrincipalPermission

*Enums (as int)*

#### Permissions.PublisherIdentityPermission

*Enums (as int)*

#### Permissions.ReflectionPermission

*Enums (as int)*

#### Permissions.ReflectionPermission

*Enums (as int)*

#### Permissions.RegistryPermission

*Enums (as int)*

#### Permissions.SecurityPermission

*Enums (as int)*

private [void](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Void) [**VerifyAccess**](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Security.Permissions.SecurityPermission/VerifyAccess(System.Security.Permissions.SecurityPermissionFlag))([SecurityPermissionFlag](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Security.Permissions.SecurityPermissionFlag" \o "System.Security.Permissions.SecurityPermissionFlag) type)

{

if ((type & ~[SecurityPermissionFlag](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Security.Permissions.SecurityPermissionFlag" \o "System.Security.Permissions.SecurityPermissionFlag).[AllFlags](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Security.Permissions.SecurityPermissionFlag/AllFlags)) != [SecurityPermissionFlag](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Security.Permissions.SecurityPermissionFlag).[NoFlags](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Security.Permissions.SecurityPermissionFlag/NoFlags))

{

throw new [ArgumentException](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.ArgumentException/.ctor(String))([string](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.String" \o "System.String).[Format](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.String/Format(System.IFormatProvider,String,Object%5b%5d):String)([CultureInfo](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Globalization.CultureInfo" \o "System.Globalization.CultureInfo).[CurrentCulture](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Globalization.CultureInfo/property:CurrentCulture:System.Globalization.CultureInfo), [Environment](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment).[GetResourceString](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment/GetResourceString(String):String)("Arg\_EnumIllegalVal"), new [object](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Object)[] { ([int](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int32" \o "System.Int32)) type }));

}

}

#### Permissions.SiteIdentityPermission

*Enums (as int)*

#### Permissions.StrongNameIdentityPermission

*Enums (as int)*

#### Permissions.StrongNamePublicKeyBlob

*Enums (as int)*

#### Permissions.UIPermission

*Enums (as int), contains a call to a method that must check if for strings*

public static [bool](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Boolean)/\*SecurityElement\*/ [**IsValidTag**](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Security.SecurityElement/IsValidTag(String):Boolean)([string](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.String) tag)

{

if (tag == null)

{

return false;

}

return (tag.[IndexOfAny](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.String/IndexOfAny(Char%5b%5d):Int32)([s\_tagIllegalCharacters](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Security.SecurityElement/s_tagIllegalCharacters:Char%5b%5d" \o "char[] System.Security.SecurityElement.s_tagIllegalCharacters;)) == -1);

}

#### Permissions.UrlIdentityPermission

*Enums (as int)*

#### Permissions.StrongNamePublicKeyBlob

*Enums (as int)*

#### PermissionSet

*Basic arithmetics (Invokes Array.SetValue)*

#### Policy.AllMembershipCondition

*See ToXml and FromXML, which have a chain of invocations, for checking strings*

#### Policy.ApplicationDirectoryMembershipCondition

*I guess as AllMembershipCondition*

#### Policy.CodeGroup

*I guess as AllMembershipCondition*

#### Policy.FileCodeGroup

*Not interesting*

#### Policy.FileMatchCodeGroup

*Not interesting*

#### Policy.Hash

*Not interesting*

#### Policy.HashMembershipCondition

*Not interesting*

#### Policy.NetCodeGroup

*Not interesting*

#### Policy.PolicyLevel

*Not interesting*

#### Policy.SiteMembershipCondition

*Not interesting*

#### Policy.Site

*Not interesting*

#### Policy.SiteMembership

*Not interesting*

#### Policy.StrongName

*Checks on string*

public [**StrongName**](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Security.Policy.StrongName/.ctor(System.Security.Permissions.StrongNamePublicKeyBlob,String,System.Version))([StrongNamePublicKeyBlob](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Security.Permissions.StrongNamePublicKeyBlob" \o "System.Security.Permissions.StrongNamePublicKeyBlob) blob, [string](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.String) name, [Version](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Version) version)

{

if (name == null)

{

throw new [ArgumentNullException](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.ArgumentNullException/.ctor(String))("name");

}

if (name.[Equals](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.String/Equals(String):Boolean)(""))

{

throw new [ArgumentException](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.ArgumentException/.ctor(String))([Environment](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment).[GetResourceString](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment/GetResourceString(String):String)("Argument\_EmptyStrongName"));

}

if (blob == null)

{

throw new [ArgumentNullException](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.ArgumentNullException/.ctor(String))("blob");

}

if (version == null)

{

throw new [ArgumentNullException](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.ArgumentNullException/.ctor(String))("version");

}

this.[m\_publicKeyBlob](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Security.Policy.StrongName/m_publicKeyBlob:System.Security.Permissions.StrongNamePublicKeyBlob) = blob;

this.[m\_name](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Security.Policy.StrongName/m_name:String) = name;

this.[m\_version](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Security.Policy.StrongName/m_version:System.Version) = version;

}

#### Policy.UnionCodeGroup

*Not interesting*

#### Policy.Url

*Not interesting*

#### Policy.UrlMembershipCondition

*Not interesting*

#### Policy.Zone

*Enums (as int)*

#### Policy.ZoneMembershipCondition

*Enums (as int)*

#### Principal.GenericIdentity

*Not null*

#### Principal.GenericPrincipal

*Not null (and some array init inside the constructor)*

#### Principal.WindowsPrincipal

*Not null*

#### Security.SecurityElement

*Check for the contain of the strings*

|  |
| --- |
| public [**SecurityElement**](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Security.SecurityElement/.ctor(String))([string](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.String) tag)  {  if (tag == null)  {  throw new [ArgumentNullException](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.ArgumentNullException/.ctor(String))("tag");  }  if (![IsValidTag](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Security.SecurityElement/IsValidTag(String):Boolean" \o "bool System.Security.SecurityElement.IsValidTag(string tag);)(tag))  {  throw new [ArgumentException](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.ArgumentException/.ctor(String))([string](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.String" \o "System.String).[Format](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.String/Format(System.IFormatProvider,String,Object%5b%5d):String)([CultureInfo](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Globalization.CultureInfo" \o "System.Globalization.CultureInfo).[CurrentCulture](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Globalization.CultureInfo/property:CurrentCulture:System.Globalization.CultureInfo), [Environment](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment).[GetResourceString](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment/GetResourceString(String):String)("Argument\_InvalidElementTag"), new [object](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Object)[] { tag }));  }  this.[m\_strTag](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Security.SecurityElement/m_strTag:String) = tag;  this.[m\_strText](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Security.SecurityElement/m_strText:String) = null;  } |

|  |
| --- |
|  |

#### Security.SecurityException

*Not interesting*

#### Security.SecurityManager

*Not interesting*

#### System.Text

#### ASCIIEncoding

Simple arithmetic, and bounds check

public string GetString (Byte[]! bytes, int byteIndex, int byteCount)

requires bytes != null otherwise ArgumentNullException;

requires byteIndex >= 0 otherwise ArgumentOutOfRangeException;

requires byteCount >= 0 otherwise ArgumentOutOfRangeException;

requires (bytes.Length - byteIndex) >= byteCount otherwise ArgumentOutOfRangeException;

#### Encoding

public static Encoding GetEncoding (int codepage)

requires codepage >= 0 otherwise ArgumentOutOfRangeException;

requires codepage <= 65535 otherwise ArgumentOutOfRangeException;

*locks?*

|  |
| --- |
| public static [Encoding](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Text.Encoding) [**GetEncoding**](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Text.Encoding/GetEncoding(Int32):System.Text.Encoding)([int](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int32" \o "System.Int32) codepage)  {  if ((codepage < 0) || (codepage > 0xffff))  {  throw new [ArgumentOutOfRangeException](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.ArgumentOutOfRangeException/.ctor(String,String))("codepage", [Environment](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment).[GetResourceString](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment/GetResourceString(String,Object%5b%5d):String)("ArgumentOutOfRange\_Range", new [object](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Object)[] { 0, 0xffff }));  }  [Encoding](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Text.Encoding) **unicode** = null;  if ([encodings](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Text.Encoding/encodings:System.Collections.Hashtable) != null)  {  unicode = ([Encoding](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Text.Encoding)) [encodings](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Text.Encoding/encodings:System.Collections.Hashtable)[codepage];  }  if (unicode == null)  {  lock ([InternalSyncObject](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Text.Encoding/property:InternalSyncObject:Object" \o "object System.Text.Encoding.InternalSyncObject { ... }))  {  if ([encodings](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Text.Encoding/encodings:System.Collections.Hashtable) == null)  {  [encodings](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Text.Encoding/encodings:System.Collections.Hashtable) = new [Hashtable](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Collections.Hashtable/.ctor())();  }  unicode = ([Encoding](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Text.Encoding)) [encodings](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Text.Encoding/encodings:System.Collections.Hashtable)[codepage]; // Here I must know that codepage < encodings.length? (Debug.Assert?)  if (unicode != null)  {  return unicode;  }  switch (codepage)  {  case 0:  unicode = [Default](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Text.Encoding/property:Default:System.Text.Encoding);  break;  case 1:  case 2:  case 3:  case 0x2a:  throw new [ArgumentException](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.ArgumentException/.ctor(String,String))([Environment](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment).[GetResourceString](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment/GetResourceString(String,Object%5b%5d):String)("Argument\_CodepageNotSupported", new [object](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Object)[] { codepage }), "codepage");  case 0x4b0:  unicode = [Unicode](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Text.Encoding/property:Unicode:System.Text.Encoding);  break;  case 0x4b1:  unicode = [BigEndianUnicode](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Text.Encoding/property:BigEndianUnicode:System.Text.Encoding);  break;  case 0x6faf:  unicode = [Latin1](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Text.Encoding/property:Latin1:System.Text.Encoding);  break;  case 0xfde9:  unicode = [UTF8](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Text.Encoding/property:UTF8:System.Text.Encoding);  break;  case 0x4e4:  unicode = new [SBCSCodePageEncoding](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Text.SBCSCodePageEncoding/.ctor(Int32))(codepage);  break;  case 0x4e9f:  unicode = [ASCII](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Text.Encoding/property:ASCII:System.Text.Encoding);  break;  default:  unicode = [GetEncodingCodePage](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Text.Encoding/GetEncodingCodePage(Int32):System.Text.Encoding)(codepage);  if (unicode == null)  {  unicode = [GetEncodingRare](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Text.Encoding/GetEncodingRare(Int32):System.Text.Encoding)(codepage);  }  break;  }  [encodings](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Text.Encoding/encodings:System.Collections.Hashtable).[Add](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Collections.Hashtable/Add(Object,Object))(codepage, unicode);  }  }  return unicode;  } |

|  |
| --- |
|  |

#### StringBuilder

*Spec# does not talks about OutOfMemoryExceptio, which is in the documentation:*

*When have the sources, give a look to ToString(), and MaxCapacity below*

public StringBuilder! Insert (int index, string value, int count)

requires value != null || (index == 0 && count == 0) otherwise ArgumentNullException;

requires 0 <= index && index < Length otherwise ArgumentOutOfRangeException;

requires 1 <= count otherwise ArgumentOutOfRangeException;

modifies this.\*;

ensures result == this;

ensures Length == old(Length) + count \* value.Length;

public [int](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int32) [**Capacity**](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Text.StringBuilder/property:Capacity:Int32)

{

get

{

return this.[m\_StringValue](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Text.StringBuilder/m_StringValue:%7brequired:System.Runtime.CompilerServices.IsVolatile%7dString).[Capacity](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.String/property:Capacity:Int32" \o "int System.String.Capacity { ... });

}

set

{

[IntPtr](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IntPtr) **tid**;

[string](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.String) **threadSafeString** = this.[GetThreadSafeString](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Text.StringBuilder/GetThreadSafeString(IntPtr&):String)(out tid);

if (value < 0)

{

throw new [ArgumentOutOfRangeException](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.ArgumentOutOfRangeException/.ctor(String,String))("value", [Environment](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment).[GetResourceString](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment/GetResourceString(String):String)("ArgumentOutOfRange\_NegativeCapacity"));

}

if (value < threadSafeString.[Length](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.String/property:Length:Int32))

{

throw new [ArgumentOutOfRangeException](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.ArgumentOutOfRangeException/.ctor(String,String))("value", [Environment](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment).[GetResourceString](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment/GetResourceString(String):String)("ArgumentOutOfRange\_SmallCapacity"));

}

if (value > this.[MaxCapacity](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Text.StringBuilder/property:MaxCapacity:Int32))

{

throw new [ArgumentOutOfRangeException](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.ArgumentOutOfRangeException/.ctor(String,String))("value", [Environment](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment).[GetResourceString](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment/GetResourceString(String):String)("ArgumentOutOfRange\_Capacity"));

}

[int](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int32) **capacity** = threadSafeString.[Capacity](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.String/property:Capacity:Int32);

if (value != capacity)

{

[string](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.String) **stringForStringBuilder** = [string](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.String).[GetStringForStringBuilder](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.String/GetStringForStringBuilder(String,Int32):String)(threadSafeString, value);

this.[ReplaceString](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Text.StringBuilder/ReplaceString(IntPtr,String))(tid, stringForStringBuilder);

}

}

}

#### UnicodeEncoding

*Bounds checking*

#### UTF7Encoding

*Simple arithmetic*

#### UTF8Encoding

*Bounds checking*

#### System.Threading

#### Monitor

*Simple arithmetic*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| public static [bool](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Boolean) [**Wait**](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Threading.Monitor/Wait(Object,System.TimeSpan):Boolean)([object](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Object) obj, [TimeSpan](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.TimeSpan) timeout)  {  [long](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int64) **totalMilliseconds** = ([long](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int64)) timeout.[TotalMilliseconds](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.TimeSpan/property:TotalMilliseconds:Double);  if ((totalMilliseconds < -1) || (totalMilliseconds > 0x7fffffff))  {  throw new [ArgumentOutOfRangeException](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.ArgumentOutOfRangeException/.ctor(String,String))("timeout", [Environment](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment).[GetResourceString](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment/GetResourceString(String):String)("ArgumentOutOfRange\_NeedNonNegOrNegative1"));  }  return [Wait](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Threading.Monitor/Wait(Object,Int32,Boolean):Boolean)(obj, ([int](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int32" \o "System.Int32)) totalMilliseconds, false);  } Thread *Simple arithmetic(and a lot of native calls), Security exceptions*  public [**Thread**](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Threading.Thread/.ctor(System.Threading.ThreadStart,Int32))([ThreadStart](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Threading.ThreadStart" \o "System.Threading.ThreadStart) start, [int](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int32) maxStackSize)  {  if (start == null)  {  throw new [ArgumentNullException](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.ArgumentNullException/.ctor(String))("start");  }  if (0 > maxStackSize)  {  throw new [ArgumentOutOfRangeException](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.ArgumentOutOfRangeException/.ctor(String,String))("maxStackSize", [Environment](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment).[GetResourceString](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Environment/GetResourceString(String):String)("ArgumentOutOfRange\_NeedNonNegNum"));  }  this.[SetStartHelper](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Threading.Thread/SetStartHelper(System.Delegate,Int32))(start, maxStackSize);  }  *But the documentation says something different (check it!):*  Initializes a new instance of the [Thread](urn:member:T:System.Threading.Thread) class, specifying the maximum stack size for the thread.  **Parameters**  *maxStackSize*  The maximum stack size to be used by the thread.  *start*  A [ThreadStart](urn:member:T:System.Threading.ThreadStart) delegate that represents the methods to be invoked when this thread begins executing.  **Exceptions**   |  |  | | --- | --- | | **Exception** | **Condition** | | [ArgumentNullException](urn:member:T:System.ArgumentNullException) | start is null. | | [ArgumentOutOfRangeException](urn:member:T:System.ArgumentOutOfRangeException) | maxStackSize is less than 128K (131,072). | |

|  |
| --- |
|  |
| Security Exception |

|  |
| --- |
| Overlapped *Not null, and security exceptions* ThreadPool *Not null, and simple arithmetic* Timer *Not null, simple arithmetic.*  *Uses some private constants*  private const [uint](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.UInt32) [**MAX\_SUPPORTED\_TIMEOUT**](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Threading.Timer/MAX_SUPPORTED_TIMEOUT:UInt32) = 0xfffffffe; WaitHandle *Not null, simple arithmetic.*  *Uses some private constants*  private const [uint](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.UInt32) [**MAX\_SUPPORTED\_TIMEOUT**](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Threading.Timer/MAX_SUPPORTED_TIMEOUT:UInt32) = 0xfffffffe; |

System.dll

#### System.Net

#### AuthenticationManager

*Not-null*

#### Cookie

*Not-null, parse of strings*

*Example:*

*Cookie(string name, string value)*

*name*

The name of a [Cookie](urn:member:T:System.Net.Cookie). The following characters must not be used inside name: equal sign, semicolon, comma, newline (\n), return (\r), tab (\t). The dollar sign character ("$") cannot be the first character.

#### CookieCollection

*Not-null, Simple bounds*

#### CookieContainer

*Not-null, parse of strings*

#### CredentialCache

*Not-null, simple bounds*

#### DNS

*Simple arithmetic*

#### DNSPermission

*Not-null*

#### FileWebRequest

*Simple arithmetic*

#### HTTPWebRequest

*Simple arithmetic, string parsing (does not contain certain tokens)*

|  |
| --- |
| internal static [bool](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Boolean) [**ContainsNonAsciiChars**](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.Net.WebHeaderCollection/ContainsNonAsciiChars(String):Boolean)([string](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.String) token)  {  for ([int](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int32" \o "System.Int32) **i** = 0; i < token.[Length](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.String/property:Length:Int32); i++)  {  if ((token[i] < ' ') || (token[i] > '~'))  {  return true;  }  }  return false;  } |

|  |
| --- |
|  |

#### IPAddress

*Simple arithmetic, but not specified in the documentation (*[*http://msdn2.microsoft.com/en-us/library/13180abx.aspx*](http://msdn2.microsoft.com/en-us/library/13180abx.aspx)*)*

public [**IPAddress**](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.Net.IPAddress/.ctor(Int64))([long](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Int64) newAddress)

{

this.[m\_Family](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.Net.IPAddress/m_Family:System.Net.Sockets.AddressFamily) = [AddressFamily](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.Net.Sockets.AddressFamily).[InterNetwork](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.Net.Sockets.AddressFamily/InterNetwork);

this.[m\_Numbers](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.Net.IPAddress/m_Numbers:UInt16%5b%5d) = new [ushort](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.UInt16)[8];

if ((newAddress < 0) || (newAddress > 0xffffffff))

{

throw new [ArgumentOutOfRangeException](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.ArgumentOutOfRangeException/.ctor(String))("newAddress");

}

this.[m\_Address](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.Net.IPAddress/m_Address:Int64) = newAddress;

}

*Parsing of strings*

private static unsafe [IPAddress](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.Net.IPAddress) [**InternalParse**](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.Net.IPAddress/InternalParse(String,Boolean):System.Net.IPAddress)([string](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.String) ipString, [bool](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Boolean) tryParse)

{ … }

|  |  |  |
| --- | --- | --- |
| IPEndPoint *Simple bound checking* ServicePoint *Typestates (see below), bounds checking,*   |  | | --- | | public [Uri](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.Uri) [**Address**](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.Net.ServicePoint/property:Address:System.Uri)  {  get  {  if (this.[m\_HostMode](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.Net.ServicePoint/m_HostMode:Boolean))  {  throw new [NotSupportedException](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.NotSupportedException/.ctor(String))([SR](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.SR).[GetString](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.SR/GetString(String):String)("net\_servicePointAddressNotSupportedInHostMode"));  }  if (this.[m\_ProxyServicePoint](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.Net.ServicePoint/m_ProxyServicePoint:Boolean))  {  [ExceptionHelper](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.Net.ExceptionHelper).[WebPermissionUnrestricted](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.Net.ExceptionHelper/WebPermissionUnrestricted:System.Net.WebPermission).[Demand](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Security.CodeAccessPermission/Demand())();  }  return this.[m\_Address](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.Net.ServicePoint/m_Address:System.Uri);  }  } ServicePointManager *Simple arithmetic, enum* SocketAddress *Simple arithmetic*  *On the sources, check*  internal [void](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Void) [**CopyAddressSizeIntoBuffer**](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.Net.SocketAddress/CopyAddressSizeIntoBuffer())()  {  this.[m\_Buffer](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.Net.SocketAddress/m_Buffer:Byte%5b%5d)[this.[m\_Buffer](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.Net.SocketAddress/m_Buffer:Byte%5b%5d).[Length](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Array/property:Length:Int32) - [IntPtr](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IntPtr).[Size](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IntPtr/property:Size:Int32)] = ([byte](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Byte)) this.[m\_Size](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.Net.SocketAddress/m_Size:Int32);  this.[m\_Buffer](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.Net.SocketAddress/m_Buffer:Byte%5b%5d)[(this.[m\_Buffer](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.Net.SocketAddress/m_Buffer:Byte%5b%5d).[Length](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Array/property:Length:Int32) - [IntPtr](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IntPtr).[Size](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IntPtr/property:Size:Int32)) + 1] = ([byte](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Byte)) (this.[m\_Size](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.Net.SocketAddress/m_Size:Int32) >> 8);  this.[m\_Buffer](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.Net.SocketAddress/m_Buffer:Byte%5b%5d)[(this.[m\_Buffer](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.Net.SocketAddress/m_Buffer:Byte%5b%5d).[Length](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Array/property:Length:Int32) - [IntPtr](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IntPtr).[Size](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IntPtr/property:Size:Int32)) + 2] = ([byte](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Byte)) (this.[m\_Size](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.Net.SocketAddress/m_Size:Int32) >> 0x10);  this.[m\_Buffer](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.Net.SocketAddress/m_Buffer:Byte%5b%5d)[(this.[m\_Buffer](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.Net.SocketAddress/m_Buffer:Byte%5b%5d).[Length](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Array/property:Length:Int32) - [IntPtr](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IntPtr).[Size](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.IntPtr/property:Size:Int32)) + 3] = ([byte](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Byte)) (this.[m\_Size](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.Net.SocketAddress/m_Size:Int32) >> 0x18);  } |  |  | | --- | |  | |

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#### SocketPermission

*Simple arithmetic, string manipulation*

|  |  |  |
| --- | --- | --- |
| public override [void](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Void) [**FromXml**](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.Net.SocketPermission/FromXml(System.Security.SecurityElement))([SecurityElement](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Security.SecurityElement" \o "System.Security.SecurityElement) securityElement)  {  if (securityElement == null)  {  throw new [ArgumentNullException](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.ArgumentNullException/.ctor(String))("securityElement");  }  if (!securityElement.[Tag](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Security.SecurityElement/property:Tag:String).[Equals](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.String/Equals(String):Boolean)("IPermission"))  {  throw new [ArgumentException](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.ArgumentException/.ctor(String,String))([SR](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.SR" \o "System.SR).[GetString](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.SR/GetString(String):String)("net\_not\_ipermission"), "securityElement");  }  [string](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.String) **text** = securityElement.[Attribute](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Security.SecurityElement/Attribute(String):String)("class");  if (text == null)  {  throw new [ArgumentException](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.ArgumentException/.ctor(String,String))([SR](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.SR" \o "System.SR).[GetString](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.SR/GetString(String):String)("net\_no\_classname"), "securityElement");  }  if (text.[IndexOf](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.String/IndexOf(String):Int32)(base.[GetType](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Object/GetType():System.Type)().[FullName](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Type/property:FullName:String" \o "string System.Type.FullName { ... })) < 0)  {  throw new [ArgumentException](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.ArgumentException/.ctor(String,String))([SR](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.SR" \o "System.SR).[GetString](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.SR/GetString(String):String)("net\_no\_typename"), "securityElement");  }  this.[initialize](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.Net.SocketPermission/initialize())();  [string](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.String) **strA** = securityElement.[Attribute](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Security.SecurityElement/Attribute(String):String)("Unrestricted");  if (strA != null)  {  this.[m\_noRestriction](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.Net.SocketPermission/m_noRestriction:Boolean) = 0 == [string](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.String).[Compare](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.String/Compare(String,String,System.StringComparison):Int32)(strA, "true", [StringComparison](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.StringComparison).[OrdinalIgnoreCase](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.StringComparison/OrdinalIgnoreCase));  if (this.[m\_noRestriction](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.Net.SocketPermission/m_noRestriction:Boolean))  {  return;  }  }  this.[m\_noRestriction](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.Net.SocketPermission/m_noRestriction:Boolean) = false;  this.[m\_connectList](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.Net.SocketPermission/m_connectList:System.Collections.ArrayList) = new [ArrayList](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Collections.ArrayList/.ctor())();  this.[m\_acceptList](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.Net.SocketPermission/m_acceptList:System.Collections.ArrayList) = new [ArrayList](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Collections.ArrayList/.ctor())();  [SecurityElement](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Security.SecurityElement) **et** = securityElement.[SearchForChildByTag](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Security.SecurityElement/SearchForChildByTag(String):System.Security.SecurityElement)("ConnectAccess");  if (et != null)  {  [ParseAddXmlElement](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.Net.SocketPermission/ParseAddXmlElement(System.Security.SecurityElement,System.Collections.ArrayList,String))(et, this.[m\_connectList](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.Net.SocketPermission/m_connectList:System.Collections.ArrayList), "ConnectAccess, ");  }  et = securityElement.[SearchForChildByTag](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://mscorlib:2.0.0.0:b77a5c561934e089/System.Security.SecurityElement/SearchForChildByTag(String):System.Security.SecurityElement)("AcceptAccess");  if (et != null)  {  [ParseAddXmlElement](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.Net.SocketPermission/ParseAddXmlElement(System.Security.SecurityElement,System.Collections.ArrayList,String))(et, this.[m\_acceptList](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.Net.SocketPermission/m_acceptList:System.Collections.ArrayList), "AcceptAccess, ");  }  } Sockets.IPv6MulticastOption *Simple arithmetic* Sockets.MulticastOption *Not-null* Sockets.NetworkStream *Bounds checking* Sockets.Socket *Bounds checking, Typestates (see* public [Socket](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.Net.Sockets.Socket) [**Accept**](http://www.aisto.com/roeder/dotnet/Default.aspx?Target=code://System:2.0.0.0:b77a5c561934e089/System.Net.Sockets.Socket/Accept():System.Net.Sockets.Socket)()), *Security, enum*  *Cannot verify this below (from the constructor)*   |  |  | | --- | --- | | [SocketException](urn:member:T:System.Net.Sockets.SocketException) | The combination of addressFamily, socketType, and protocolType results in an invalid socket. | |

|  |  |
| --- | --- |
| *What about this?* | |
| [NotSupportedException](urn:member:T:System.NotSupportedException) | Windows NT is required for this method. |
| [NotSupportedException](urn:member:T:System.NotSupportedException) | The operating system is Windows 2000 or earlier, and this method requires Windows XP. |
| [FileNotFoundException](urn:member:T:System.IO.FileNotFoundException) | The file fileName was not found. |

#### Sockets.TCPclient

*Enums, security, typestates*

#### Sockets.TCPListener

*Enums, security, typestates*

#### Sockets.UdpClient

*Simple arithmetic, Enums, security, typestates*

#### Timers.Timer

*Simple arithmetic*

#### Uri

*Simple arithmetic*

#### UriBuilder

*Simple arithmetic*

#### System.Web.AspNetHostingPersmission

*Not-null*

#### System.Text.RegularExpressions

#### CaptureCollection

*Simple bounds*

#### Group

*Not-null*

#### GroupCollection

*Simple bounds*

#### Match

*Not-null*

#### Regex

*Simple bounds, not-null, enum, typestates,*

#### RegexCompliationInfo

*Nothing!*