

# System.ArgumentOutOfRangeException Class

```
[ILASM]
.class public serializable ArgumentOutOfRangeException
extends System.ArgumentException

[C#]
public class ArgumentOutOfRangeException: ArgumentException
```

## Assembly Info:

- Name: mscorlib
- Public Key: [00 00 00 00 00 00 00 00 04 00 00 00 00 00 00]
- Version: 1.0.x.x
- Attributes:
  - CLSCompliantAttribute(true)

## Summary

Represents the error that occurs when an argument passed to a method is invalid because it is outside the allowable range of values as specified by the method.

## Inherits From: System.ArgumentException

**Library:** BCL

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

## Description

[Note: **System.ArgumentOutOfRangeException** is thrown when a method is invoked and at least one of the arguments passed to the method is not **null** and does not contain a valid value.

**System.ArgumentOutOfRangeException** behaves identically to **System.ArgumentException**. It is provided so that application code can differentiate between exceptions caused by invalid arguments that are not **null**, and exceptions caused by **null** arguments. For errors caused by **null** arguments, see **System.ArgumentNullException**.]

## Example

1 The following example demonstrates an error that causes the  
2 **System.Array** class to throw a  
3 **System.ArgumentOutOfRangeException** exception.

4  
5 [C#]

```
6 using System;
7 class ArgOutOfRangeExceptionExample {
8     public static void Main() {
9         int[] array1 = {0,0};
10        int[] array2 = {0,0};
11        try {
12            Array.Copy(array1,array2,-1);
13        }
14        catch (ArgumentOutOfRangeException e) {
15            Console.WriteLine("Error: {0}",e);
16        }
17    }
18 }
19
```

20 The output is

21  
22 Error: System.ArgumentOutOfRangeException: Non-negative  
23 number required.

24  
25  
26 Parameter name: length

27  
28  
29 at System.Array.Copy(Array sourceArray, Int32 sourceIndex,  
30 Array destinationArray, Int32 destinationIndex, Int32  
31 length)

32  
33  
34 at ArgOutOfRangeExceptionExample.Main()  
35



# 1 **ArgumentOutOfRangeException()**

## 2 **Constructor**

```
3 [ILASM]  
4 public rtspecialname specialname instance void .ctor()  
  
5 [C#]  
6 public ArgumentOutOfRangeException()
```

### 7 **Summary**

8 Constructs and initializes a new instance of the  
9 **System.ArgumentOutOfRangeException** class.

### 10 **Description**

11 This constructor initializes the  
12 **System.ArgumentOutOfRangeException.Message** property of the  
13 new instance to a system-supplied message that describes the error,  
14 such as "Non-negative number required." This message takes into  
15 account the current system culture.

16  
17 The **System.ArgumentOutOfRangeException.ParamName** and  
18 **System.ArgumentOutOfRangeException.ActualValue** properties  
19 are initialized to **null**.

20

# ArgumentOutOfRangeException(System.String) Constructor

```
[ILASM]
public rtspecialname specialname instance void .ctor(string
paramName)

[C#]
public ArgumentOutOfRangeException(string paramName)
```

## Summary

Constructs and initializes a new instance of the **System.ArgumentOutOfRangeException** class.

## Parameters

Parameter	Description
<i>paramName</i>	A <b>System.String</b> that contains the name of the parameter that caused the current exception. The content of <i>paramName</i> is intended to be understood by humans.

## Description

This constructor initializes the **System.ArgumentOutOfRangeException.ParamName** property of the new instance using *paramName*. The **System.ArgumentOutOfRangeException.Message** property is initialized to the system-supplied message provided by the constructor that takes no arguments.

The **System.ArgumentOutOfRangeException.ActualValue** property is initialized to **null**.

# ArgumentOutOfRangeException(System.String, System.String) Constructor

```
[ILASM]
public rtspecialname specialname instance void .ctor(string
paramName, string message)

[C#]
public ArgumentOutOfRangeException(string paramName, string
message)
```

## Summary

Constructs and initializes a new instance of the **System.ArgumentOutOfRangeException** class.

## Parameters

Parameter	Description
<i>paramName</i>	A <b>System.String</b> that contains the name of the parameter that caused the current exception. The content of <i>paramName</i> is intended to be understood by humans.
<i>message</i>	A <b>System.String</b> that describes the error. The content of <i>message</i> is intended to be understood by humans. The caller of this constructor is required to ensure that this string has been localized for the current system culture.

## Description

This constructor initializes the **System.ArgumentOutOfRangeException.ParamName** property of the new instance using *paramName*, and the **System.ArgumentOutOfRangeException.Message** property using *message*. If *message* is **null**, the **System.ArgumentOutOfRangeException.Message** property is initialized to the system-supplied message provided by the constructor that takes no arguments.

The **System.ArgumentOutOfRangeException.ActualValue** property is initialized to **null**.

# ArgumentOutOfRangeException(System.String, System.Object, System.String) Constructor

```
[ILASM]  
public rtspecialname specialname instance void .ctor(string  
paramName, object actualValue, string message)
```

```
[C#]  
public ArgumentOutOfRangeException(string paramName, object  
actualValue, string message)
```

## Summary

Constructs and initializes a new instance of the **System.ArgumentOutOfRangeException** class.

## Parameters

Parameter	Description
<i>paramName</i>	A <b>System.String</b> that contains the name of the parameter that caused the current exception. The content of <i>paramName</i> is intended to be understood by humans.
<i>actualValue</i>	The value of the argument that caused the current exception.
<i>message</i>	A <b>System.String</b> that describes the error. The content of <i>message</i> is intended to be understood by humans. The caller of this constructor is required to ensure that this string has been localized for the current system culture.

## Description

This constructor initializes the **System.ArgumentOutOfRangeException.ParamName** property of the new instance using *paramName*, the **System.ArgumentOutOfRangeException.ActualValue** property using *actualValue*, and the **System.ArgumentOutOfRangeException.Message** property using *message*. If *message* is **null**, the **System.ArgumentOutOfRangeException.Message** property is initialized to the system-supplied message provided by the constructor that takes no arguments.

[Note: The *actualValue* parameter contains the invalid argument that was passed to the method. Use the **System.ArgumentOutOfRangeException.ParamName** property to retrieve the name of the parameter used to pass *actualValue*.]

# ArgumentOutOfRangeException.ActualValue Property

```
[ILASM]
.property object ActualValue { public hidebysig virtual
specialname object get_ActualValue() }

[C#]
public virtual object ActualValue { get; }
```

## Summary

Gets the value of the parameter that caused the current exception.

## Property Value

A **System.Object** that contains the value of the parameter that caused the current exception, or **null** if no value was specified to the constructor for the current instance.

## Description

This property is read-only.

## Behaviors

The **System.ArgumentOutOfRangeException.ActualValue** property returns the same value as was passed into the constructor.

## How and When to Override

Override the **System.ArgumentOutOfRangeException.ActualValue** property to customize the content or format of the value.

## Usage

Use this property to retrieve the invalid argument.