

System.OverflowException Class

```
[ILAsm]
.class public serializable OverflowException extends
System.ArithmeticException

[C#]
public class OverflowException: ArithmeticException
```

Assembly Info:

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

Summary

Represents the error that occurs when the result of an arithmetic operation is too large to be represented by the destination type.

Inherits From: System.ArithmeticException

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

In languages that detect overflow, this is the exception that gets thrown. For example, in C#, the `checked` keyword is used to detect overflow conditions. A `System.OverflowException` exception occurs only in a checked context.

[*Note:* The following CIL instructions throw `System.OverflowException`:

- `add.ovf.<signed>`
- `conv.ovf.<to type>`
- `conv.ovf.<to type>.un`
- `mul.ovf.<type>`
- `sub.ovf.<type>`
- `newarr`

]

Example

The following example demonstrates an error that causes a `System.OverflowException` exception.

[C#]

```
using System;
public class OverflowExample {
    public static void Main() {
        int i = 400;
        byte b = 0;
        try {
            checked { b = (byte)( i ); }
        }
        catch ( OverflowException e ) {
            Console.WriteLine( "Error caught: {0}", e );
        }
    }
}
```

The output is

```
Error caught: System.OverflowException: Arithmetic operation resulted
in an overflow.
   at OverflowExample.Main()
```

OverflowException() Constructor

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

Summary

Constructs and initializes a new instance of the `System.OverflowException` class.

Description

This constructor initializes the `System.OverflowException.Message` property of the new instance to a system-supplied message that describes the error. This message takes into account the current system culture.

The `System.OverflowException.InnerException` property is initialized to `null`.

OverflowException(System.String) Constructor

```
[ILAsm]  
public rtspecialname specialname instance void .ctor(string message)  
  
[C#]  
public OverflowException(string message)
```

Summary

Constructs and initializes a new instance of the `System.OverflowException` class.

Parameters

Parameter	Description
<i>message</i>	A <code>System.String</code> 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.OverflowException.Message` property of the new instance using *message*. If *message* is `null`, the `System.OverflowException.Message` property is initialized to the system-supplied message provided by the constructor that takes no arguments. The `System.OverflowException.InnerException` property is initialized to `null`.

OverflowException(System.String, System.Exception) Constructor

```
[ILAsm]
public rtspecialname specialname instance void .ctor(string message,
class System.Exception innerException)

[C#]
public OverflowException(string message, Exception innerException)
```

Summary

Constructs and initializes a new instance of the `System.OverflowException` class.

Parameters

Parameter	Description
<i>message</i>	A <code>System.String</code> 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.
<i>innerException</i>	An instance of <code>System.Exception</code> that is the cause of the current <code>Exception</code> . If <i>innerException</i> is non-null, then the current <code>Exception</code> was raised in a catch block handling <i>innerException</i> .

Description

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

[*Note:* For information on inner exceptions, see `System.Exception.InnerException`.]