

# 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:* 1.0.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 IL instructions throw **System.OverflowException**:

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

- 1 • sub.ovf.<type>
- 2 • newarr
- 3 ]

#### 4 **Example**

5

6 The following example demonstrates an error that causes a  
7 **System.OverflowException** exception.

8

9

[C#]

```
10 using System;
11 public class OverflowExample {
12     public static void Main() {
13         int i = 400;
14         byte b = 0;
15         try {
16             checked { b = (byte)(i); }
17         }
18         catch (OverflowException e) {
19             Console.WriteLine("Error caught: {0}", e);
20         }
21     }
22 }
23
```

24 The output is

25

```
26 Error caught: System.OverflowException: Arithmetic
27 operation resulted in an overflow.
28     at OverflowExample.Main()
29
```

30

# 1 OverflowException() Constructor

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

## 6 Summary

7 Constructs and initializes a new instance of the  
8 **System.OverflowException** class.

## 9 Description

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

14  
15 The **System.OverflowException.InnerException** property is  
16 initialized to **null**.

17

# 1 OverflowException(System.String)

## 2 Constructor

```
3 [ILASM]  
4 public rtspecialname specialname instance void .ctor(string  
5 message)  
  
6 [C#]  
7 public OverflowException(string message)
```

### 8 Summary

9 Constructs and initializes a new instance of the  
10 **System.OverflowException** class.

### 11 Parameters

12  
13

| Parameter      | Description   |
|----------------|---|
| <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. |

14

### 15 Description

16 This constructor initializes the **System.OverflowException.Message**  
17 property of the new instance using *message*. If *message* is **null**, the  
18 **System.OverflowException.Message** property is initialized to the  
19 system-supplied message provided by the constructor that takes no  
20 arguments. The **System.OverflowException.InnerException**  
21 property is initialized to **null**.

22

# 1 OverflowException(System.String, 2 System.Exception) Constructor

```
3 [ILASM]  
4 public rtspecialname specialname instance void .ctor(string  
5 message, class System.Exception innerException)  
  
6 [C#]  
7 public OverflowException(string message, Exception  
8 innerException)
```

## 9 Summary

10 Constructs and initializes a new instance of the  
11 **System.OverflowException** class.

## 12 Parameters

13  
14

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

15  
16

## 16 Description

17 This constructor initializes the **System.OverflowException.Message**  
18 property of the new instance using *message*, and the  
19 **System.OverflowException.InnerException** property using  
20 *innerException*. If *message* is **null**, the  
21 **System.OverflowException.Message** property is initialized to the  
22 system-supplied message provided by the constructor that takes no  
23 arguments.  
24

25 [Note: For information on inner exceptions, see  
26 **System.Exception.InnerException**.]  
27