

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
7 [C#]
8 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 System.String 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

Parameter	Description
<i>message</i>	A System.String 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 System.Exception 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> .

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**.]