

System.StackOverflowException Class

```
[ILASM]
.class public sealed serializable StackOverflowException
extends System.SystemException

[C#]
public sealed class StackOverflowException: SystemException
```

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 execution stack overflows due to too many method calls.

Inherits From: System.SystemException

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.StackOverflowException** is thrown for execution stack overflow errors, typically in the case of a very deep or unbounded recursion.

The `localloc` IL instruction throws **System.StackOverflowException**.]

Example

The following example demonstrates an error that causes a **System.StackOverflowException** exception.

```
[C#]

using System;
public class StackOverflowExample {
    public static void recursion() { recursion(); }
```

```
1      public static void Main() {  
2          try {  
3              recursion();  
4          }  
5          catch(StackOverflowException e) {  
6              Console.WriteLine("Error caught: {0}", e);  
7          }  
8      }  
9  }  
10
```

11 The output is

12
13 Error caught: System.StackOverflowException: Exception of
14 type System.StackOverflowException was thrown.

15

1 StackOverflowException() Constructor

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

6 Summary

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

9 Description

10 This constructor initializes the
11 **System.StackOverflowException.Message** property of the new
12 instance to a system-supplied message that describes the error, such
13 as "The requested operation caused a stack overflow." This message
14 takes into account the current system culture.

15
16 The **System.StackOverflowException.InnerException** property is
17 initialized to **null**.

18

1 StackOverflowException(System.String)

2 Constructor

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

8 Summary

9 Constructs and initializes a new instance of the
10 **System.StackOverflowException** 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
17 **System.StackOverflowException.Message** property of the new
18 instance using *message*. If *message* is **null**, the
19 **System.StackOverflowException.Message** property is initialized to
20 the system-supplied message provided by the constructor that takes
21 no arguments. The
22 **System.StackOverflowException.InnerException** property is
23 initialized to **null**.

24

StackOverflowException(System.String, System.Exception) Constructor

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

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

Summary

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

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> .

Description

This constructor initializes the **System.StackOverflowException.Message** property of the new instance using *message*, and the **System.StackOverflowException.InnerException** property using *innerException*. If *message* is **null**, the **System.StackOverflowException.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**.]