

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 00]
- *Version:* 2.0.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` CIL instruction throws `System.StackOverflowException`.

]

Example

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

```
[C#]
```

```
using System;
```

```
1 public class StackOverflowExample {
2     public static void recursion() { recursion(); }
3     public static void Main() {
4         try {
5             recursion();
6         }
7         catch(StackOverflowException e) {
8             Console.WriteLine("Error caught: {0}", e);
9         }
10    }
11 }
12
13 The output is
14
15 Error caught: System.StackOverflowException: Exception of type
16 System.StackOverflowException was thrown.
```

StackOverflowException() Constructor

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

Summary

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

Description

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

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

StackOverflowException(System.String) Constructor

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

Summary

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

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 <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.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`.]