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;
public class StackOverflowExample {
    public static void recursion() { recursion(); }
    public static void Main() {
        try {
```

```
        recursion();
    }
    catch(StackOverflowException e) {
        Console.WriteLine("Error caught: {0}", e);
    }
  }
}
```

The output is

```
Error caught: System.StackOverflowException: Exception of type
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
message	A `System.String` that describes the error. The content of *message* 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
message	A System.String that describes the error. The content of *message* 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.
innerException	An instance of System.Exception that is the cause of the current Exception. If *innerException* is non-null, then the current Exception was raised in a catch block handling *innerException*.

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.]