

exception.cm

```
/*  
  
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    )  
  
*/  
  
// Copyright (c) 1994  
// Hewlett-Packard Company  
// Copyright (c) 1996  
// Silicon Graphics Computer Systems, Inc.  
// Copyright (c) 2009 Alexander Stepanov and Paul McJones  
  
namespace System  
{  
    public class Exception  
    {  
        public nothrow Exception(): message(), file(), line(0)  
        {  
        }  
        public nothrow Exception(const string& message_): message(  
            message_), file(), line(0)  
        {  
        }  
        public nothrow default Exception(const Exception& that);  
            // generate copy constructor although has user-defined  
            destructor  
        public nothrow default void operator=(const Exception& that);  
            // generate copy assignment although has user-defined  
            destructor  
        public nothrow default Exception(Exception&&);  
            // generate move constructor although has user-defined  
            destructor  
        public nothrow default void operator=(Exception&&);  
            // generate move assignment although has user-defined  
            destructor  
        public nothrow virtual ~Exception()  
        {  
        }  
        public virtual string ToString() const  
        {  
            string s = exceptionType;  
            if (!file.IsEmpty())  
            {  
                s.Append(" at ");  
            }  
        }  
    }  
}
```

```

        s.Append(file);
        if (line != 0)
        {
            s.Append(" ' line ");
            s.Append(ToString(line));
        }
        else
        {
            s.Append('\'');
        }
    }
    s.Append(":\n");
    s.Append(message);
    s.Append("\n");
    if (!callStack.IsEmpty())
    {
        s.Append(callStack);
    }
    return s;
}

public nothrow const string& ExceptionType() const
{
    return exceptionType;
}

public nothrow void SetExceptionType(const string& exceptionType_)
{
    exceptionType = exceptionType_;
}

public nothrow const string& Message() const
{
    return message;
}

public nothrow const string& File() const
{
    return file;
}

public nothrow int Line() const
{
    return line;
}

public nothrow void SetFile(const string& file_)
{
    file = file_;
}

public nothrow void SetLine(int line_)
{
    line = line_;
}

public nothrow void SetCallStack(const string& callStack_)
{
    callStack = callStack_;
}

```

```
    private string exceptionType;  
    private string message;  
    private string file;  
    private int line;  
    private string callStack;  
}
```