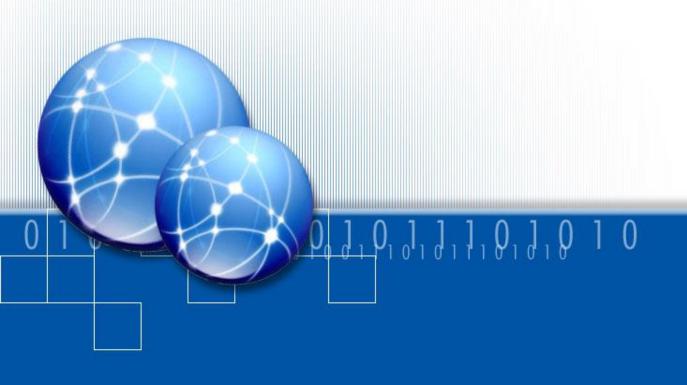


Exceptions & Error Handling



Topics

- Overview
- Where Exceptions Occur
- Exception Handling
- Global Exception Handlers

Overview

- No one is perfect.
- As developers, we create our software in a friendly environment where everything is set up to work perfectly.
- However, users will ultimately run software in a lessthan-perfect environment where anything can and will go wrong and flaws in your software will be exposed.
- Unless handled correctly, exceptions cause application errors.



Where Exceptions Occur

- Exceptions can occur anywhere in code.
- The most common thing that can go wrong is the user entering an invalid user name and password.
- There are some common situations you should always design your applications to detect and gracefully handle:
 - Bad input
 - Multiuser conflicts
 - Network outages
 - Corrupt or missing files
 - Crashes
 - Stress



Exception Handling

The safest bet is to assume you can't detect and handle every unexpected circumstance and that exceptions will inevitably occur.

Exception Handling (Cont.)

- Some basic do's and don'ts to handle the exception :
 - DOs
 - write Try...Catch or On Error GoTo exception handling on all database interactions.
 - report an error to the user explaining briefly what went wrong and what she should do next.
 - give the user information about who to contact when something goes wrong.
 - log full details of the exception.
 - DON'Ts
 - give too much information in the error message to the user.



Exception Handling (Cont.)

- Try...Catch or On Error GoTo
 - Which method you choose is mainly a matter of personal preference, although *Try...Catch* exception handling has an edge over *On Error GoTo* for several reasons.
 - You can mix and match the two types of exception handling, using On Error GoTo in one function and Try...Catch in another.
 - However, the Visual Basic compiler will not let you use both *On Error GoTo* and *Try...Catch* in the same function.



Global Exception Handlers

- Exceptions bubble up to the parent method.
- Putting an exception handler in Sub Main gives the effect of a global exception handler.
- Because of a problem in Visual Basic .NET 2002 and Visual Basic .NET 2003, some types of exceptions typically, COM interop— based exceptions—do not bubble up to the parent exception handler.
- Viewing the Event Log Remotely