

CBT NUGGETS
IT Certification Training Videos

Introduction to Programming with VB.NET


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30:19	<i>intro</i>	Intro to the Microsoft.NET Platform
39:05	<i>intro</i>	Intro to Visual Basic.NET
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49:43	<i>intro</i>	Intro to Building Web Applications
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29:09	<i>intro</i>	Intro to Object-Oriented Programming Concepts
40:43	<i>intro</i>	Intro to Data Access using ADO.NET
29:40	<i>intro</i>	Intro to Web Development using ASP.NET
28:28	<i>intro</i>	Setting IDE Options and Project Properties
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10:00	<i>intro</i>	Visual Basic.NET MCSD Certification Track

Meet Your Trainer

Garth Schulte
[Garth's Other Titles](#)
[Read Garth's Biography](#)

The screenshot shows a video player window titled "Intro to the Microsoft .NET Platform (30:19)". The main content is a slide titled "Overview of the .NET Platform" with the following handwritten text:

- What is the .NET Platform?
- What are the Goals of .NET?
- .NET Provides
 - * Language-Independent Programming Model
 - * Hassle-Free Interoperability between Technologies
 - * Simple Migration from Existing Technologies
 - * Full Support for Internet Standards-Based Technologies

Callout boxes provide additional context:

- Top-left: ".NET apps can now easily tap into all other MS Apps like SQL Server for database info or Exchange Server for e-mail info"
- Top-right: "MUCH Easier Web-based App Development"
- Bottom-right: "Full Support for XML, HTTP, SOAP"
- Left sidebar: "Can easily tap into older versions of SQL Server and Exchange Server"

The video player interface includes a "Normal Speed" dropdown, a "Start" button, and a "Paused" status. The Windows taskbar at the bottom shows the Start button, "America Online 9.0...", "CBT Nuggets Media...", "Microsoft Word", and the system clock at "10:02 AM".

SOME GOALS OF DOT NET Easier Windows-based App Development MUCH Easier Web-based App Development [now do NOT need 3rd party apps like Cold Fusion which was needed to convert older VB6.0 Apps to Web Apps
 Language independent programming means that code segments can be interchanged between different Dot Net languages, e.g. VB.Net code can be used in Visual C++.Net, and Java

The CLR is what allows for Language Independence [so VB and C++ and Java can interchange code. Also in pre.Net e.g. VB 6.0 before you could release a VB6 program you had to install "runtime files"]

Intro to the .NET Platform **The .NET Core Technologies**

- .NET Framework
 - * Provides a common set of program mable Services
 - * Based on the new Common Language Runtime
- .NET Building Block Services
 - * Distributed programmable Services available online & offline
 - * Services include notification, messaging, personalization, storage, calendar, directory & software delivery
- Visual Studio .NET
 - * High-Level Development Environment

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start CBT Nuggets Media Pl... Microsoft Word 10:31 AM

“runtime files” were things like the compiler, the code interpreter that had to be installed before the VB6 app, wasn’t a pleasant task. With CLR all the different languages will filter their code thru the CLR.

The image shows a screenshot of a video player window. The video is titled "Intro to the .NET Framework" and is paused. The main content area displays a slide with the following text:

- What is the .NET Framework?
- The Common Language Specification (CLS)
- .NET Framework is
 - * Based on Web Standards & Practices
 - * Extensible
 - * Simple to use!
 - * Supports Numerous Programming Languages

The video player interface includes a menu bar (File, Edit, Effects, Canvas, Window, Help), a playlist bar showing "Intro to the Microsoft.NET Platform (30:19)", and a control bar with play, stop, and volume buttons. The Windows taskbar at the bottom shows the Start button, open applications (CBT Nuggets Media Pl..., Microsoft Word), and the system tray with the time 10:49 AM.

Way back programs were monolithic; none could share code with other apps. The COM – Common Object Model did allow for code sharing but still programmers had to write wrap, manage, and clean up files so that the interchanged code could interact with one another. The CLS does all that automatically “under-the-hood”. The CLS are Common Language Specification that programmers need to adhere to to allow interoperability.

Extensible has to do with the fact that Microsoft has left the door open to view and modify the code for its Forms so that we can go in and modify or extend the code

The screenshot shows a video player window titled "Intro to the Microsoft .NET Platform (30:19)". The main content is a slide with the title "The .NET Languages" and a list of languages and tools. Handwritten notes in black ink are overlaid on the slide:

- Visual Basic .NET ^{RAD}
 - * Really Rapid Application Development Tool
 - * Substantial Language Innovations
- Visual C Sharp (C#)
 - * Streamlined Modern Day version of C++
- Managed Extensions C++
 - * Upgraded version of Visual C++
- J Sharp .NET (J#)
 - * Microsofts Java Implementation
- Third-Party Languages

The video player interface includes a menu bar (File, Edit, Effects, Canvas, Window, Help), a playlist, a progress bar, and a taskbar at the bottom showing the Start button and several open applications: America Online 9.0, CBT Nuggets Media, and VB.NET COACHING. The system clock shows 2:44 AM.

VB .NET IS A FULLY OBJECT ORIENTED LANGUAGE, JUST AS POWERFUL NOW AS C++

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Normal Speed

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Playlist: Intro to the Microsoft .NET Platform (30:19)

File Edit Effects Canvas Window Help

NET Framework Components **Intro to the Common Language Runtime**

- The CLR Simplifies Application Development
 - * Provides Robust & Secure Execution Environment
 - * Provides a Managed Environment
- CLR Components
 - * Code Manager
 - * Garbage Collection
 - * Security Engine
 - * Debug Engine
 - * Type Checker
 - * Exception Manager
 - * Thread Support
 - * Class Loader
 - * .NET Framework Class Library

Start | MetaCreations Painter... | Author: CBT Nuggets, Inc | 18:...

start | America Online 9.0 ... | CBT Nuggets Media ... | VB.NET COACHING ... | 2:47 AM

A MANAGED ENVIRONMENT PROVIDES COMMON SERVICES AUTOMATICALLY

Code Manager manages the code execution

Garbage Collection manages the lifetime of the code and prevents memory leaks, it correctly destroys Objects And Variables [when we are done with them to prevent memory leaks and circular references

Type Checker ensures type safety [so you don't put numerical data in lets say a character string variable by accident

Exception Manager provides error handling Thread support allows creating of multi-threaded apps

.NET Framework Class Library Integrates code with the Runtime

CBT Nuggets media layer - Microsoft Internet Explorer

Playlist: Intro to the Microsoft .NET Platform (30:19)

File Edit Effects Canvas Window Help

NET Framework Components

Data Access - ADO.NET Overview

- ADO.NET Provides XML Support & an improved Disconnected Programming Model
- Next Generation of ADO (ActiveX Data Objects)

ADO.NET Namespaces

```
graph TD; subgraph SystemData [System.Data]; DataSet; DataRow; DataTable; DataView; end; SystemXml[System.Xml]; SystemXmlSchema[System.Xml.Schema]; SystemXmlSerialization[System.Xml.Serialization];
```

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start | America Online 9.0 ... | CBT Nuggets Media ... | VB.NET COACHING ... | 2:59 AM

ADO is how we access data in VB 6; ADO.Net is used in VB.Net