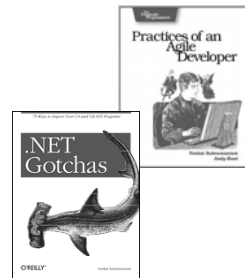# AJAX for .NET Programmers

Venkat Subramaniam

```
spkr.name = 'Dr. Venkat Subramaniam'
spkr.founder = 'Agile Developer, Inc.'
spkr.affiliated = 'University of Houston'
spkr.associated = 'Rice Univ. Continuing Studies'

spkr.cred = %w{Programmer Speaker Trainer Author}

spkr.nfjs = 'NFJS Speaker since 2002'

spkr.website = 'http://www.agiledeveloper.com'
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```

Abstract

Developers building application using .NET technologies have quite a few choices when it comes to developing AJAX applications.

In this presentation we will take a live code example oriented approach to developing AJAX application on the .NET platform. We will delve into a number of frameworks including ATLAS and discuss the pros and cons.

- We will Build *and* Learn
- Fully functional examples are developed from scratch
- We will spend most time in code
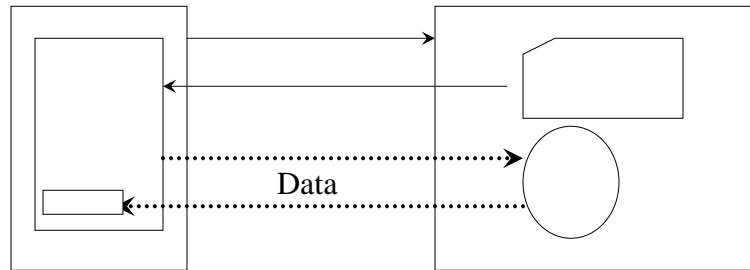
AJAX For .NET Programmers

- AJAX and .NET
- ASP.NET 2.0 out of the box
- AJAX.NET Pro
- Microsoft AJAX Library ("ATLAS")
- ASP.NET and Prototype
- Conclusion

Build *and* Learn: Set up

- We will build and learn

- A simple Web application that maintains my contacts/friends

- I can add friends and filter display

- Let's build it plain and simple – no frills
  - We won't sweat connecting to database or making it fancy – quick and dirty so we can get to AJAXing it soon
- We will find different ways to AJAX it in the rest of this presentation

AJAX and .NET

- It all started with Microsoft's XMLHttpRequest object!

Data

- Pretty cool idea, but...

AJAX and .NET...

- Cross-Browser compatibility issues

- Handling version of browsers is tedious job

- This is where frameworks or APIs come in

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What's interesting in ASP.NET 2.0?

- Normal operation: Postback clearly visible

- How about individual controls quietly making request to server to refresh only the control?

- Controls support a callback method

Build *and* Learn: ASP.NET 2.0 Callback

- You callback handler class implements ICallbackEventHandler

- A bit of Javascript to invoke that method asynchronously

- It works, but not real elegant

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AJAX.NET Professional

- Considered as First AJAX library for .NET
- Developed by Michael Schwar
- Very simple and easy to use
- Does not eliminate JavaScript completely, however
- Metadata based
- Drop a reference to an assembly, modify web.config to configure HttpHandler
- Declare your methods with special AJAXMethod attribute
- Register to expose class
- Tie it with client side JavaScript call
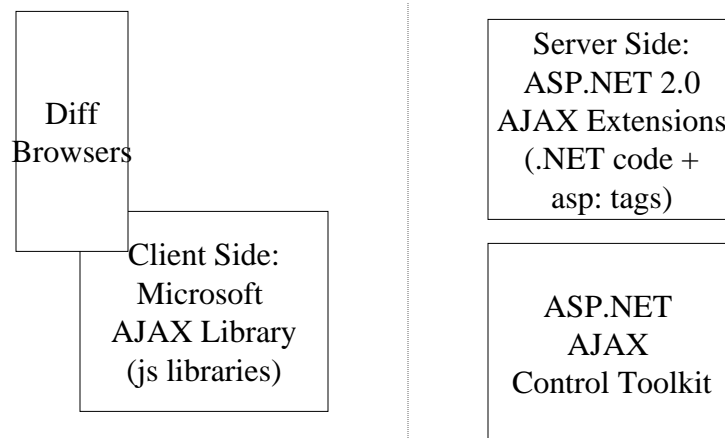
Build *and* Learn: ASP.NET Pro

- We will AJAXify our contact application using ASP.NET Pro

- We'll get it working, then tear it apart, and see what's going on behind the scenes

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Microsoft's AJAX

- Was code named ATLAS
- Recently renamed - client vs. server side

Diff Browsers

Client Side: Microsoft AJAX Library (js libraries)

Server Side: ASP.NET 2.0 AJAX Extensions (.NET code + asp: tags)

ASP.NET AJAX Control Toolkit

Server Side vs. Client Side

- Server Side
  - You may a few AJAX trips to get data
  - Hardly any Java script for you to write
  - Smart Server controls take care of it
- Client Side
  - You can make better use of client side capabilities
  - Involves JavaScript, but library support is provided

Build *and* Learn: ATLAS

- We will AJAXify our contact application using ATLAS

- We'll get it working, then tear it apart, and see what's going on behind the scenes

Build *and* Learn: Control Toolkit

- Various controls are available as part of AJAX Control Toolkit

- Let's visit some of the interesting controls that you can readily use

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Prototype

- Sam Stephenson's Prototype
- Thomas Fuchs's Scriptaculous
- Javascript on steroids

- Simple and Elegantly
  - shows how OO and powerful JavaScript is

- Mixing it with ASP.NET is a great combination

Build *and* Learn: Prototype and ASP.NET

- We will AJAXify our contact application using Prototype and Scriptaculous

- Issues with Mixing with ATLAS

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Quiz Time

Conclusion

- Different frameworks and options for .NET Developers
- AJAX.NET Pro is fairly simple and straight forward, but involves some work with javascript
- ATLAS is promising – server side and/or client side library
- I love prototype and scriptaculous and would use it with ASP.NET
- Need the flexibility to mix frameworks/APIs without collision

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References

1. AJAX.NET Professional
   http://www.ajaxpro.info

2. Microsoft AJAX Library and ASP.NET 2.0 AJAX Extensions - "ATLAS"

   http://atlas.asp.net

3. Prototype

   http://prototype.conio.net

4. Scriptaculous

   http://script.aculo.us

5. Download examples and code presented here from **http://www.agiledeveloper.com/download.aspx**

Thanks