

Using Inheritance in a Web Service with Apache and ASP.NET

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What Are We Doing Today?

- Simple Data Models
- `xsd:any/xsd:anyType`
- `xsd:string`
- And so on...

Demo

- With a few exceptions, this method is not needed.
- Exceptions: WS-Security, WS-Transaction are two good examples of `xsd:any` being a good idea.

What Else Then?

- `xsd:extension`
- `xsd:choice`
- In short, use XSD to create extensible types

Demo: .NET Web Service

- Inheritance happens in the .NET code
- Inheritance happens in the XML Schema
- Can go from XML to types code understands quickly.
- Client also can create hierarchy in code

Making it work well

- Design issues
 - Switch based off of type?
 - Define a new interface?
 - Other behavior?

Demo

- Switch based off of type

Different behavior executed based on type information

- Good part:
 - No class hierarchy to maintain
 - No all-encompassing interface to define
 - Straightforward to handle new types: just add a new branch in the if/switch code
- Bad part:
 - May not look as “elegant”
 - Expansion to a significant number of derived types may look like a hack

Demo

- Using well defined interface
- Using inheritance

Using interface/inheritance

- Use inheritance when you want some default behavior
- Use interface when no default behavior is obvious

Q & A

- Write me: sseely@microsoft.com
- Most up to date slides:
[http://www.scottseely.com/DevCon/slides.
zip](http://www.scottseely.com/DevCon/slides.zip)