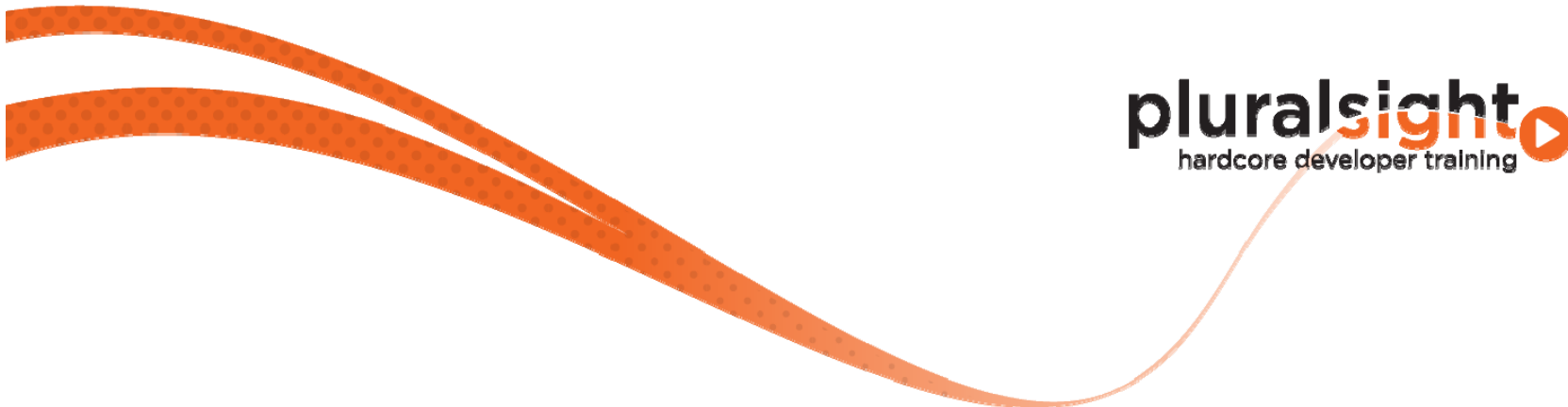


Building End-to-End Multi-Client Service Oriented Applications – *Angular Edition*

Module 09

Client Access

moving to the client side



Highlights

- **Client Contracts & Entities**
- **WCF Proxies**
 - SOAP Headers
- **Dependency Injection**
- **Service Factory**

Client-side Contracts

- **Already established client-side Entities**
 - Used to deserialize SOAP message into
- **Business service contracts work with business entities**
 - Need client-side service contracts
 - Will look just like business contracts, but return client entities
 - Can also have “Task-based” async operations

WCF Proxies

- **Wrap access to the Channel Factory**
 - Implement client service contract
- **Client uses them like normal objects**
- **Will put thread's identity name into SOAP header**
 - Remember service pulled it out
 - Custom base class will hide all the code
- **Exported through MEF**
 - Already abstracted to interface
 - DI-requirements already met

SOAP Header Usage

- **Proxy classes use “OutgoingMessageHeaders” collection**
 - Remember, services used “IncomingMessageHeaders”
- **Need to put current identity’s Name into header**
 - Will get it from current thread principal
 - In a desktop app, will be identity of desktop user
 - In a web app, will be identity established through the authentication scheme used (forms authentication will use user logged into app)
- **Want this passed with every call so service can pull it out later**
 - Don’t want to explicitly declare it in every operation
 - Don’t want client to have to do it manually
 - Answer: custom base class !

Service Factory

- **Abstract factory pattern (yet again)**
- **Allows obtainment of a proxy on-demand**
 - Injection of proxies may not accommodate all clients
 - MVC controller-actions are stateless
 - WPF ViewModels are stateful
 - Proxy may be left open unnecessarily
- **Factory class injected instead**
- **Same exact pattern used in data repository factory and business engine factory**

Summary

- **Nicely encapsulated client layer**
 - Included client-side contracts and entities
 - WCF service proxies and factory
 - All set up for DI
- **Unit tests confirmed DI access and connectivity to host**
- **Any client can now reference the client projects and access services**

End of module