

# The Architect's Master Class

## **Duration**

5 days

## **Instructor**

Juval Lowy

## **Class Limit**

30 students

## **Price**

On-site

Please contact SPC for pricing (contact information on page 2)

Public Training

\$3,250 (5 days)

\*Discount available for early registration

## **Materials Provided**

- Student manual containing the course slides
- Student handouts with class exercises

This five-day training course is entitled the *Architect's Master Class* (vs. the Architecture Master Class) because it is dedicated to the core body of knowledge required of today's architects; knowledge that transcends mere design patterns and architecture.

The core body of knowledge comprises of three elements: development process and project leadership skills, technology, and finally analysis and design. The seminar agenda reflects these three elements.

The first day is devoted to the accompanying service-oriented development process and the required project management skills.

The second and third days are an accelerate course in WCF, ensuring the architect is a qualified technical lead in all aspects of WCF, such as interface-based design and factoring, service oriented design, general design principal and patterns concerning reliability, data transfer, instance management scalability and throughput, availability and responsiveness, loosely coupled systems, fault propagation, transaction management, concurrency management and security scenarios.

In the fourth and fifth day the IDesign architect will explain the IDesign original approach to large system analysis and design and the IDesign Method™ for capturing the design decisions. The IDesign architect will also interactively design a system by soliciting requirements for an actual application, and proceeding in real time to design the system, outlining the architecture that addresses the requirements, discussing logical tiers, security, interoperability, scalability, transactions, and other aspects of a service-oriented application, followed in the last day by the students designing another system themselves.

Attendees will see how to approach rarely discussed topics such as allocation of services to assemblies, allocation of services to processes, transaction boundaries, identity management, authorization and authentication boundaries and more.

This workshop is a unique opportunity to learn from the IDesign architects, their experience from numerous design projects and insight on architecture, technology and its applications.

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## Instructor

Juval Lowy is a software architect and the principal of IDesign ([www.idesign.net](http://www.idesign.net)), specializing in .NET 3.0 architecture consulting and advanced .NET 3.0 training. Juval is Microsoft's Regional Director for the Silicon Valley, working with Microsoft on helping the industry adopt .NET 3.0.

His latest book is *Programming WCF Services* (O'Reilly 2007). Juval participates in the Microsoft internal design reviews for future versions of .NET and related technologies. Juval published numerous articles on .NET and is a frequent presenter at development conferences. Microsoft recognized Juval as a Software Legend as one of the world's top .NET experts and industry leaders.

## Intended Audience

This seminar is ideal for .NET architects, project leads or senior developers. The class relies on WCF as a reference model; prior knowledge of WCF is recommended.

## Outline

### The Architect

- Modern software systems
- Types of architects, architecture & technology
- Service-oriented programming

## Outline Cont'd

### Service-Oriented Development Process

- Project planning, estimation & tracking
- Documentation
- Requirement management & traceability
- Configuration management & quality control
- Design for performance
- Services simulation & emulation
- Peer reviews & development standards
- Metrics collection
- Visibility management

### Introduction to Service-Oriented

- What are services?
- Service-oriented architecture
- Service-oriented applications

### WCF Essentials

- Service-oriented programming
- Using WCF
- WCF architecture
- Implementation considerations

### Service Contract Design & Factoring

- Service contract design
- Contract factoring techniques
- Contract metrics

### Service-Oriented Design Patterns & Best Practices

- Data contracts versioning, data contract & data tables
- Instance management & throttling
- Operations and event management
- Transaction management & consistency
- Concurrent management, responsiveness & availability
- Security scenarios
- Service granularity

### Design and Architecture Case Studies

- Use cases analysis
- Assembly allocation
- Run-time processes design
- Identity management
- Authentication
- Authorization
- Transaction flow
- Synchronization
- Code-access security policy



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For more information on this or other SPC Springboard courses, please visit [www.spcspringboard.com](http://www.spcspringboard.com) or e-mail SPC at [info@spc.ca](mailto:info@spc.ca)

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