

**Architect's Master Class**  
**with Juval Löwy**

**December 10 – December 14, 2012**  
**Belgium (location TBD)**



## Overview

While many developers and managers have a clear idea regarding the characteristics and practices, and corresponding set of responsibilities of their own roles, the picture is often vague when it comes to **software architects**. What is the single most important task facing the software architect? What is the division of labor and responsibilities between the architect and the project manager? How much the architecture should be tied in to the particulars of the underlying technology used, or for that matter, for the specifics of the projects? What are the necessary skills and analysis tools employed by an architect? How do you validate the design before construction? How do methodologies such as service-orientation affect the design and development process? What are software architecture **best practices, guidelines** and **pitfalls**? How do you go about designing world-class systems? How do you make the transition from abstract design patterns and concepts to concrete development decisions? The class answers the above questions using a combination of frontal lecture and interactive and accelerated design sessions. Conducted in the style of a classic Master Class, **Juval Löwy** will provide the common foundation of modern service-oriented applications required by software architects.

Noteworthy is that this class is called the **Architect's Master Class** (as opposed to the Architecture Master Class) because it is dedicated to 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 class 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. Juval Löwy will interactively design a system by soliciting from the students 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. You 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.



## Format

The class uses a combination of frontal presentations, code demonstrations, and hands-on lab exercises to reinforce all of the concepts presented. The demos provide a code library to refer back to when building your own applications, and the labs help cement the key learning elements of the class using step-by-step procedures to accomplish the tasks covered.

## Target Audience

Any .NET architect, project lead or senior developer would benefit greatly from the class. The class relies on WCF as a reference model.

## Date & Location

December 10 – December 14, 2012 (5 days)

Belgium (location TBD)



## Teacher

Juval Löwy is the founder of [IDesign](#) and a seasoned software architect specializing in system architecture and large applications design. Juval helps IDesign customers design scalable, robust, reusable, and extensible applications, verifying that they meet the required quality, scalability, security, availability and throughput goals. Juval is Microsoft's [Regional Director](#) for the Silicon Valley, working with Microsoft on .NET and cloud adoption. Juval also participates in the Microsoft internal strategic design reviews for future versions of .NET and related technologies. Juval is a frequent speaker at the major international software development [conferences](#), where he presents his techniques and breakthroughs and he chairs the .NET track at the Dev Connections and SD West conferences. Juval published several bestsellers, and his latest book is [Programming WCF Services](#) (O'Reilly 2008). Juval published numerous [articles](#), regarding almost every aspect of developing with .NET. Microsoft recognized Juval as a Software Legend as one of the world's top .NET experts and industry leaders.



## Price

The cost for this intensive 5 day Master Class is **2999,- euro** (taxes not included). This price includes your participation to the Master Class, coffee/tea, lunch and the printed materials presented during the Master Class.

Payment in advance is required to book your seat for the Master Class. Limited places available: first come, first served. Registration is only complete and will be confirmed after payment. Transfer the total amount of your fees by bank transfer to the account of Sparkles: 733-0567754-43 (use your full name in the message) or use the IBAN code for international payment: IBAN BE 66 7330 5677 5443 (BIC code: KREDBEBB).

Cancellation is possible up to 3 weeks before the seminar - if received in writing. In this case, 25% of the total amount is charged for administration. Otherwise, the full registration fee is due, regardless of the reason of cancellation. Replacement is possible at no extra charge.



## Outline Architect's Master Class

### The Architect

- Modern software systems
- Types of architects
- Architecture and technology
- Service-oriented programming

### Service-Oriented Development Process

- Project planning
- Estimation and tracking
- Documentation
- Requirement management and traceability
- Configuration management
- Quality control
- Design for performance
- Services simulation and emulation
- Peer reviews
- Development standards
- Metrics collection
- Visibility management
- Avoiding Process Groupthink

### Introduction to Service-Orientation

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

### WCF Essentials

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



## Service Contract Design and Factoring

- Service contract design
- Contract factoring techniques
- Contract metrics

## Service-Oriented Design Patterns and Best Practices

- Data contracts versioning, data contract and data tables
- Instance management and throttling
- Operations and event management
- .NET Services Bus and cloud-assisted applications
- Transaction management and consistency
- Concurrent management, responsiveness and availability
- Security scenarios

## Service Granularity

- Every class as a service?
- Performance consideration and perspective
- WCF benchmarks
- InProcFactory and WCF Wrapper
- Beyond .NET and WCF

## Design and Architecture

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

## Vertical Slice

- Executing on the IDesign Method diagrams
- Building layers
- Employing design aspects
- Stress testing



## Registration Architect's Master Class with Juval Löwy

Send registration form to [pieter.gheysens@sparkles.be](mailto:pieter.gheysens@sparkles.be) or fax to +32 56 324372

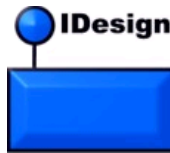
### Course Details

**Date:** December 10 – December 14, 2012 (5 days)

**Location:** Belgium (location TBD)

**Teacher:** Juval Löwy (IDesign)

**Price:** 2999,- euro (taxes not included)



### Registration Details

**Name:**

**Function:**

**Company:**

**Address:**

**ZipCode + City + Country:**

**Phone:**

**Fax:**

**Email:**

**Invoice for the attn. of:**

**Invoice address:**

**VAT number:**

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**Date, Name and signature:**

Invoice will be sent after registration. Payment details: KBC 733-0567754-43 or IBAN BE 66 7330 5677 5443 (BIC code: KREDBEBB). Cancellation is possible up to 3 weeks before the seminar - if received in writing. In this case, 25% of the total amount is charged. Otherwise, the full registration fee is due, regardless of the reason of cancellation. Replacement is possible at no extra charge.