



## TDWI In-Depth Education

Essential education. Immediate impact.

The 2012 European TDWI In-Depth Education Series offers a broad range of courses focused on the skills and techniques at the heart of successful business intelligence and data warehousing implementations. The individual courses will provide practical education that focuses on business critical topics.

Main Topic: **Data Modeling**

March 26<sup>th</sup> – 28<sup>th</sup>, 2012 • Munich

Instructor: John O'Brien

### Geared to

- Data architects
- Data modelers
- BI program and project managers
- BI/DW system developers
- Database developers

Take the  
**Early Bird Advantage**  
before  
**Feb. 24<sup>th</sup>, 2012**



## Registration form

Please fax the Registration form:

Fax: +49 (0) 2241 / 2341 199

Please write the information very clearly!

Last name \_\_\_\_\_

First name \_\_\_\_\_

Company \_\_\_\_\_

Department \_\_\_\_\_

Jobtitle \_\_\_\_\_

Street \_\_\_\_\_

Zip / City \_\_\_\_\_

Phone \_\_\_\_\_ Fax \_\_\_\_\_

Email \_\_\_\_\_ Valid Signature \_\_\_\_\_

### Conference Fees (plus VAT)

#### Registration Fees for TDWI Members

Package	Early Bird*	Regular
3 days	1.495 Euro	1.595 Euro
2 days	1.295 Euro	1.395 Euro

#### Registration Fees for Non-Members

Package	Early Bird*	Regular
3 days	1.795 Euro	1.895 Euro
2 days	1.395 Euro	1.595 Euro

\* Register before February 24<sup>th</sup>, 2012 and pay within two weeks after receiving the invoice and receive the Early Bird discount.

### Payment method

- Please bill my company (feasible for German participants only)  
 Please charge my credit card  Visa  Eurocard / MasterCard  American Express

Card Owner \_\_\_\_\_

Card Number \_\_\_\_\_ Exp. Date \_\_\_\_\_

All rates include course note, lunch and coffee breaks.

I accept the general terms and conditions (GTC) of SIGS DATACOM GmbH by registering here. Prior to this I read the GTC for conference and seminar participants at [www.sigs-datacom.de](http://www.sigs-datacom.de). I agree that SIGS DATACOM GmbH can inform me by e-mail about forthcoming events and may keep me updated with expert informations and free articles from the journals OBJEKTspektrum, JavaSPEKTRUM, BISPEKTRUM.  No I don't consent to that. In addition I agree that I will be informed about the products and services of the partner companies of SIGS DATACOM GmbH by e-mail at irregular intervals.  No I don't consent to that. I am aware that I can withdraw my consent in the future. I can do this both electronically or also by sending a letter to SIGS DATACOM GmbH, LindlaustraÙe 2c, 53642 Troisdorf, info@sigs-datacom.de

### Please choose your courses:

#### Monday & Tuesday, March 26<sup>th</sup> – 27<sup>th</sup>, 2012

- TDWI Data Modeling: Data Analysis and Design for BI and Data Warehousing Systems - Part 1
- TDWI Data Modeling: Data Analysis and Design for BI and Data Warehousing Systems - Part 2

#### Wednesday, March 28<sup>th</sup>, 2012

- TDWI Advanced Data Modeling Techniques

Instructor for all courses:

John O'Brien

Radiant Advisors



With over twenty years of experience delivering value through data warehousing and business intelligence programs, John O'Brien's unique perspective comes from the combination of his roles as a practitioner, consultant, and vendor in the BI industry. As a recognized thought leader in BI, John has been publishing articles and presenting at conferences in North America and Europe for the past ten years. His knowledge in designing, building, and growing enterprise BI systems and teams brings real world insights to each role and phase within a BI program. Today, John is providing research and advisory services that guide companies in meeting the demands of next generation information management, architecture, and emerging technologies.

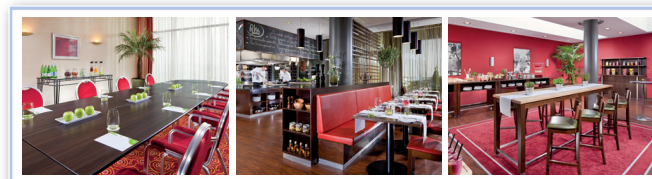
### Location:

Courtyard by Marriott Munich City Center  
Schwanthalerstr. 37  
80336 Munich, Germany

Reservation: + 49 (0) 89 - 36002 - 897 or  
e-Mail [cy.muccy.reservations@courtyard.com](mailto:cy.muccy.reservations@courtyard.com)

Room rate: 146,- € (incl. VAT, incl. Breakfast)

(The room rate is available until February 24<sup>th</sup> 2012. Please use promotion code "TDWI In-Depth". You can also check our direct hotel reservation link: <http://cwp.marriott.com/muccy/sigsdatacom>)



### Contact:

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Monday, March 26<sup>th</sup>, 2012

09.00 – 17.30

**TDWI Data Modeling: Data Analysis and Design for BI and Data Warehousing Systems – Part 1**

Business intelligence and data warehousing systems challenge the proven data modeling techniques of the past. From requirements to implementation, new roles, uses, and kinds of data demand updated modeling skills. The data modeler's toolbox must address relational data, dimensional data, unstructured data, and master data. For those with data modeling experience, this course extends their skills to meet today's modeling challenges. Those new to data modeling are introduced to the broad range of modeling skills needed for BI/DW systems. Those who need to understand data models, but not necessarily develop them, will learn about the various forms of models and what they are intended to communicate.

**You Will Learn**

- The role of business requirements in BI data modeling
- Differences in modeling techniques for business transactions, business events, and business metrics
- The role of source data analysis in data modeling
- Use of relational modeling techniques for data warehouse analysis and design
- Use of dimensional modeling techniques for data warehouse analysis and design
- Implications of unstructured data
- The roles of normalization and abstraction in data warehouse design
- The roles of identity and hierarchy management in data warehouse design
- How time-variant data is represented in data models
- Implementation and optimization considerations for warehousing data stores

**Geared To**

- Data architects; data modelers; BI program and project managers; BI/DW system developers

Tuesday, March 27<sup>th</sup>, 2012

09.00 – 17.30

**TDWI Data Modeling: Data Analysis and Design for BI and Data Warehousing Systems – Part 2**

Business intelligence and data warehousing systems challenge the proven data modeling techniques of the past. From requirements to implementation, new roles, uses, and kinds of data demand updated modeling skills. The data modeler's toolbox must address relational data, dimensional data, unstructured data, and master data. For those with data modeling experience, this course extends their skills to meet today's modeling challenges. Those new to data modeling are introduced to the broad range of modeling skills needed for BI/DW systems. Those who need to understand data models, but not necessarily develop them, will learn about the various forms of models and what they are intended to communicate.

**You Will Learn**

- The role of business requirements in BI data modeling
- Differences in modeling techniques for business transactions, business events, and business metrics
- The role of source data analysis in data modeling
- Use of relational modeling techniques for data warehouse analysis and design
- Use of dimensional modeling techniques for data warehouse analysis and design
- Implications of unstructured data
- The roles of normalization and abstraction in data warehouse design
- The roles of identity and hierarchy management in data warehouse design
- How time-variant data is represented in data models
- Implementation and optimization considerations for warehousing data stores

**Geared To**

- Data architects; data modelers; BI program and project managers; BI/DW system developers

Wednesday, March 28<sup>th</sup>, 2012

09.00 – 17.30

**TDWI Advanced Data Modeling Techniques**

Whether you are a business data modeler who represents data requirements and entities and relationships, or a physical data modeler more concerned with tables, columns, and indexes, you know that the hard stuff lies beneath the surface. Every data design, whether logical or technical, is challenged by one or more complex considerations—scalability, adaptability, performance, legacy and package databases, etc. Every data model raises questions. Advanced modeling techniques provide many of the answers.

**You Will Learn**

When, where, and how to apply advanced modeling techniques, including:

- Normalization and denormalization
- Abstraction, patterns, and universal models
- Generalization, specialization, and inheritance
- Time and time dependency in the data model
- States and state dependency in the data model
- Recursion for lists, trees, and networks
- Complementary models—process, state-transition, use cases, and event maps
- Advanced indexing and outer join optimization
- Data model validation and testing

**Geared To**

- Data modelers with some practical experience; data architects; database developers

