

Business Specifications and RM-ODP.

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This tutorial is based on substantial industrial experience in business and other specification discovery, structuring and representation. It emphasizes the commonality between various kinds of specifications as well as traceability between specifications used at different stages of the information management lifecycle. The approach to specifications presented here is neutral with respect to specific methodologies, technologies and tools and is based on concepts and constructs defined in international standards — Reference Model of Open Distributed Processing (RM-ODP) and General Relationship Model (GRM).

The material presented in the tutorial is not about traditional OO "A&D" or buzzwords. The tutorial audience will encounter useful and often elegant concepts based on good practice (in programming and in specifications), and solid underlying theory of interest and importance to all of us. The tutorial is not that unique: developments of the kind presented here are encountered in practice, described in international standards and sometimes even become new buzzwords. Whilst several years ago the concepts of pre- and post-conditions and invariants were considered inappropriate for business specifications (we often heard that "nobody could ever understand them"), now they are often used in various specifications, standards, and even "CASE tools". Users, including business SMEs (subject matter experts), do understand and successfully apply such concepts. Important insights presented in the tutorial have been successfully used in specification and programming, lead to better understanding and thus to delivering products that are what we want them to be (rather than what was hacked to be delivered to and often hated by the customer). These products are based on simple and elegant specifications approved by business users, and created with, or at times by, these users.

The tutorial contains examples from financial, insurance and other areas based on non-proprietary information: business texts published a long time ago. The business concepts described in these texts are the foundation of the specifications of the basics of the corresponding business domains and have been successfully used — many times — in my consulting work. These specifications have been presented to — and understood by — various customer audiences; this has successfully solved the problem of (mis)communication between, for example, business and IT specialists. The same approach has been successfully used to specify various architectures (known as "application architecture", "software architecture", "enterprise architecture", etc.) as well as the underlying technological infrastructure. The commonality of underlying concepts led to clear traceability between various specifications.

The tutorial includes an overview of the basic concepts of RM-ODP. Although this material is of significant practical use (for example, the OOPSLA99 workshop on behavioral semantics included several papers about using this standard in finance (Wall Street, Union Bank of Switzerland), information management (Sun), by consulting firms, and elsewhere, including business transformation, there are almost no texts that describe this material in a manner accessible to a non-specialist.

The tutorial material was presented, in various forms, to clients in finance, insurance, telecommunications, and other areas. The audiences included business analysts, subject matter experts, architects, senior developers. Some of this material was described in my book "Business specifications" as well as in numerous papers.

Haim Kilov is a Technical Director with Genesis Development Corporation. He has been involved in all stages of information system specification, design, and development. His approach to information modeling, widely used in financial, insurance, telecommunications, document management and other

areas, especially for business specifications, has brought demonstrable clarity and understandability to specifying businesses and systems. It was described in two books published by Prentice-Hall and in a significant number of other publications. He also edited two books on behavioral semantics of businesses and systems for Kluwer Academic Publishers. He has been the co chair and proceedings editor for all OOPSLA and two ECOOP workshops on behavioral semantics and has been a speaker, tutorial presenter and program committee member for many international conferences. He is a subject area editor of Computer Standards and Interfaces. He substantially contributed to several international standards on Open Distributed Processing and to the work of various OMG working groups and task forces. Haim Kilov is using and extending his approach to specifications in customer engagements, and does research and consulting in the areas of business specifications and information modeling.