

The SOPHIST Lecture Portfolio 2009 / 2010

Our Lectures, Tutorials & Workshops cover the following areas:

- > Requirements Engineering
- > Requirements Management
- > Business Management, Project Management, Business Processes
- > And further more subjects

Flexibility

Our lecture portfolio is 100 % flexible.

We gladly will adjust for you the content, duration and language of a lecture according to your wishes.

Contact us. We are looking forward to your request!

Contact

heureka@sophist.de
www.sophist.de

Fon: +49 (0)911 40 900-0
Fax: +49 (0)911 40 900-99

SOPHIST GmbH
Vordere Cramergasse 13
90478 Nuremberg
Germany

SOPHIST GmbH
General Manager: Christine Rupp,
Dipl. Information Technology (FH)
Roland Ehrlinger
Vordere Cramergasse 13
90478 Nuremberg
Germany

fon: +49 (0)9 11 40 900-0
fax: +49 (0)9 11 40 900-99

e-mail: heureka@sophist.de
Internet: www.sophist.de

Copyright © 2009 by SOPHIST GmbH

This publication is protected by copyright. All rights, also transferring to translation, reprint, as well as the reproduction of certain parts of the publication are reserved. It is prohibited to reproduce, reprint or spread any part of this publication neither by using electronic systems nor by employing any other method. This is valid for teaching purposes as well. It is necessary to obtain a permission in writing! The rights of third parties are not to be affected.

Content

Lectures in the area of Requirements Engineering	3
Requirements Engineering.....	3
Are Systems Engineers Complete Losers When It Comes to Communication?.....	3
Clairvoyance for connoisseurs – Identifying your client’s needs and documenting the same	4
Still specifying or are you already implementing?	4
From the Sentence to the Perfect Requirement	5
Ensuring usability, security and reliability: The easy way to software quality.....	6
Applying Agile Requirements Engineering to Conditions Unsuitable for Agile Development	6
Psychotherapy for System Requirements	7
Lectures in the area of Requirements Management	7
Change Management – Gambling or Calculable Process?.....	7
Lectures in the area of Business Management, Project Management and Business processes ...	8
Knowledge Transfer And Communication In IT Projects.....	8
Behaviour Patterns In Systems Development – How You Avoid Success-impeding Patterns Of Behaviour In Your Project	8
Lectures in other areas	9
Reusing project artifacts – Cutting time and effort involved with projects.....	9

Lectures in the area of Requirements Engineering

Title:	Requirements Engineering
Sub title:	n/a
Possible languages:	English, German
Keywords:	requirements engineering, natural language, system analysis, psychotherapy, Neuro Linguistic Programming, NLP
Level:	Beginner
Abstract:	A system manufacturer which fulfills its customer's real requirements is said to be successful. But how can these real requirements be obtained efficiently? For some decades now, the science of informatics, namely the software engineering branch, has produced numerous answers to that question. For reasons beyond the scope of this paper they have seldom hit the heart of the matter. This paper introduces an approach which was transferred from the discipline of psychotherapy to the field of requirements engineering. A set of rules was formed to assist the analysis and quality assurance of customer requirements represented in prose. The paper reviews the foundations of the approach, explains its details with different examples, and describes experiences made in industry.

Title:	Are Systems Engineers Complete Losers When It Comes to Communication?
Sub title:	n/a
Possible languages:	English, German
Keywords:	agility, communication, complexity
Level:	Beginner, Advanced
Abstract:	The systems development industry is frequently shaken by negative reports such as the mishaps and delays that plagued the Toll Collect system in Germany ¹ or cars that break down due to software defects. Many people wonder what it is that ails modern systems development. Why is it so hard to build systems that realize user requirements when our technology allows us to do almost anything? Are systems engineers losers when it comes to communicating about the requirements? Can the problem be solved by an agile process and direct communication between system users and developers? If so, which fields of knowledge must be added to an agile process in order to ensure that knowledge transfer works?

Title:	Clairvoyance for connoisseurs – Identifying your client's needs and documenting the same
Sub title:	n/a
Possible languages:	English, German
Keywords:	requirements engineering, clairvoyance
Level:	Beginner, Advanced
Abstract:	<p>A comprehensive understanding of what your clients and users need is the decisive factor in system development. Ever more frequently, architects and developers are granted the dubious pleasure of confronting requirement-donors and being responsible for ascertaining requirements. But do you know how to best identify and extract all the conscious, unconscious and subconscious requirements your users and stakeholders harbor? Modern requirements engineering methods offer a variety of alternatives to cumbersome interviews and lengthy specifications.</p> <p>When trying to galvanize the users and complete projects in “internet-time”, the correct and intelligent use of investigative techniques is a key competence. If the requirements are fragmentary, unspecific, unclear or just plain nonexistent – guess who gets to pay the bill: the architect. It does thus really pay off to actively warrant that all the requirements have been collected in a professional fashion, that the specification is thorough and the wordings exact.</p> <p>The knowledge collected must then be documented, in order to guarantee its readability, feasibility and serviceability. Using examples, the lecture will illustrate how to check if all the most important ideas of the stakeholders were accounted for in the specification and if the document is airtight or just another air bubble.</p>

Title:	Still specifying or are you already implementing?
Sub title:	How much requirements engineering is enough?
Possible languages:	English, German
Keywords:	requirements engineering
Level:	Beginner, Advanced
Abstract:	<p>How much requirements engineering does a project really need? And how much is too much? Especially architects love complaining about two types of specifications – which make life hard, but have become a common sight:</p> <p>sketchy, shallow specifications, which delineate the product-to-be-built altogether too vaguely and where architects have to try and best-guess what future users might desire, or</p> <p>all-encompassing, extremely detailed specifications, where there's so many constraints that the only viable solutions make life really hard for the involved</p> <p>When it comes to the level of comprehensiveness of a specification, worlds lie between what the classic process models deem appropriate and what an agile approach would prescribe. Thus when it's time to pick and choose, make sure you opt for a methodology that suits the risks and con-</p>

	<p>straints you have identified with your project.</p> <p>We believe that, during projects, the key risks are the best indicator for how much methodological drudgery is really necessary – once you’ve managed to minimize the hazards, you can stop. In a word: as little as possible but as much as necessary!</p> <p>Sadly this simple maxim is often neglected. When people specify, they use the wrong methods, the wrong notations and cause disarray rather than institute clarity. The lecture will demarcate the significant factors which influence the operating expenses during you project and which govern the selection of apt notations and methods of requirements engineering. Moreover, we will be taking an in-depth look at those focal points during the process where you – as an architect – are called-upon to question results or denote the proceeding course of action.</p> <p>The lecture will answer the following questions:</p> <ul style="list-style-type: none"> ▪ Why doe specifications today look like they do – and how may we turn that to good account? ▪ How can I, an architect, recognize a good specification? ▪ Where is my input sought-after and crucial?
--	--

Title:	From the Sentence to the Perfect Requirement
Sub title:	n/a
Possible languages:	English, German
Keywords:	requirements engineering
Level:	Beginner, Advanced
Abstract:	Nearly all of us requirements engineers have to cope with some 'quality' inherent to natural language: its ambiguity, incompleteness and inconsistency. However, in 9 out of 10 cases natural language is the only language both developers and customers speak and understand well. So natural language is very understandable. How can we get rid of the shortcomings without sacrificing the advantages? And how do we gain a better understanding and improved representation of the stakeholder needs? On which requirements representation do we base the system's acceptance? Results of research in linguistics and psychology were transferred to computer sciences, yielding a technique to find or even not to write ambiguous, incomplete and inconsistent requirements. The presented method not another approach to formally describe requirements but to work on natural-language requirements which are written down in a specification or which have been uttered by the stakeholder just now.

Title:	Ensuring usability, security and reliability: The easy way to software quality
Sub title:	n/a
Possible languages:	English, German
Keywords:	software quality engineering, usability, security
Level:	Beginner
Abstract:	Few people will deny that requirements regarding the usability, security or reliability of a software are vital for the success of the final product. In project reality however, the complete documentation of the functional requirements has the highest priority. As time and budget run out, quality aspects are often neglected or even ignored during the requirement specification phase. As a result, decisions on architecture and design of the software in later stages of the software development are often based on insufficient information, which ultimately leads to dissatisfied users. We have developed a procedure that allows you to identify all the quality requirements relevant for your software with minimal project time and budget. The key to a requirement specification that is complete on quality aspects is the reuse of quality requirements. We present the IVENA-process for the reuse of non-functional requirements that we have successfully applied and improved in many projects.

Title:	Applying Agile Requirements Engineering to Conditions Unsuitable for Agile Development
Sub title:	n/a
Possible languages:	English, German
Keywords:	agile processes, agile software development, best practices, time-to-market, requirements engineering, methodology, time-constrained requirements engineering, natural language analysis
Level:	Advanced
Abstract:	The requirements engineering (RE) performed when using agile processes is extremely successful in terms of efficiency. This article shows how and why 'agile RE' helps a great deal especially when system manufacturers have to rush to market. We start by exploring what is the heart of the matter of RE. This will lead to a discussion of the main RE-specific aspects of agile processes. Then we will examine the conditions which are often found in practice where some RE-specific agile practices cannot be fully accomplished, leading to poorer results concerning the question 'WHAT shall we code?'. Throughout the article we recommend approaches that offer efficiency. The most efficient one, the use of methods for analysing natural language that are derived from psychotherapy, are explained in greater detail. It is assumed that the basic principles of agile software development are known to the listeners.

Title:	Psychotherapy for System Requirements
Sub title:	n/a
Possible languages:	English, German
Keywords:	requirements engineering
Level:	Beginner, Advanced
Abstract:	<p>A system manufacturer which fulfills its customer's real requirements is said to be successful. But how can these real requirements be obtained efficiently? For some decades now, the science of informatics, namely the software engineering branch, has produced numerous answers to that question. For reasons beyond the scope of this paper they have seldom hit the heart of the matter. This paper introduces an approach which was transferred from the</p> <p>discipline of psychotherapy to the field of requirements engineering. A set of rules was formed to assist the analysis and quality assurance of customer requirements represented in prose. This session reviews the foundations of the approach, explains its details with different examples, and describes experiences made in industry.</p>

Lectures in the area of Requirements Management

Title:	Change Management – Gambling or Calculable Process?
Sub title:	n/a
Possible languages:	English, German
Keywords:	change management, traceability
Level:	Advanced, Basic knowledge in traceability / change management
Abstract:	<p>Without a proper basis for decision-making, changes on a running system often reminds of Russian roulette. The basis for a calculable change process is an existing traceability, the basis for traceability is a continuous and comprehensible development process.</p> <p>In order to make your change process calculable we present a way how to build the required basis. We show you how to achieve a continuous and comprehensible development process by using well-known techniques like (amongst others) the use case analysis. Starting with the analysis phase going on to building the system's architecture we show you which outcomes should be produced and how they can be used in the following phases. The central notation for this method will be the UML, used to build the analysis model as well as describing the system architecture. However the method is not restricted to software development but can be equally applied in system development. With the presented method we also close the – still existing – gap between analysis and design by consequently reusing the outcomes of one's development phase in the following phase.</p>

Lectures in the area of Business Management, Project Management and Business processes

Title:	Knowledge Transfer And Communication In IT Projects
Sub title:	n/a
Possible languages:	English, German
Keywords:	communication, knowledge transfer
Level:	Beginner, Advanced
Abstract:	Projects live and die by the transfer of knowledge. The tension between lower costs and higher quality leads pragmatists to the search for the optimal balance of the two. This session provides you with ways through the conflict between cost reduction and high-quality production. Here we will cover areas of risk management, stakeholder relationship management, requirements and communication in a session important to both Project Managers and Business Analysts.

Title:	Behaviour Patterns In Systems Development – How You Avoid Success-impeding Patterns Of Behaviour In Your Project
Sub title:	n/a
Possible languages:	English, German
Keywords:	patterns of behavior
Level:	Beginner
Abstract:	Regardless of the organisation you work for – you will always find classical patterns of behaviour that are cultivated. Some of these patterns are definitely success-impeding leading to projects that tend to end in failure. In this keynote Chris has prepared some of the patterns, determined their consequences and searched for ways out of this misery. Discover patterns of behaviour and then how to develop strategies to success.

Lectures in other areas

Title:	Reusing project artifacts – Cutting time and effort involved with projects
Sub title:	n/a
Possible languages:	English, German
Keywords:	reuse concept, system analysis
Level:	Beginner, Advanced
Abstract:	Ever been in the following situation? During a project you suspect, time and time again, that you've already solved a particular problem that has just come up - in the past. You just can't seem to remember when and during which project. A pity, because you end up solving the problem anew to forego a lengthy rummaging through old files. Would you have known where the data was filed or whom to ask, you would've reduced the time and effort involved with your current project. This is exactly where reuse comes in. During this presentation we'll have a look at different reuse concepts and their makeup. We'll see which artifacts are suitable for reuse, how to identify the same and how to format them for an easy reuse in subsequent projects. Furthermore, we'll delineate how to best introduce your personal reuse concept in a firm.

We are looking forward to present you our know-how as soon as possible!

Sincerely Yours

The SOPHISTS

Contact:
 heureka@sophist.de
 www.sophist.de

Fon: +49 (0)911 40 900-0
 Fax: +49 (0)911 40 900-99

SOPHIST GmbH
 Vordere Cramergasse 13
 90478 Nuremberg
 Germany