

# **Solving the Puzzle of Business and System Analysis**

*A Complete Curriculum*

**Presented by Hathaway & Associates, Inc.**  
16057 Tampa Palms Blvd. W., #197  
Tampa, Florida 33647  
(813) 973-3046  
Email: [training@thehathaway.com](mailto:training@thehathaway.com)

Version 2.0  
January 10, 2000



*An entirely blank page.*

# A Business and System Analysis Curriculum

<b>Table of Contents</b>	<b>Page</b>
A Business and System Analysis Curriculum	1
Why?	
Our Answer	
Instructional Optimization	
SNAP – the Skills Needs Assessment Process	
Who is Hathaway & Associates, Inc.?	3
An Overview of the Curriculum	4
Detailed Descriptions and Outlines:	
SBA 10 System Analysis: An Introduction to Techniques and Tools	6
SBA 15 Small Project Management	8
SBA 20 Defining Business and System Requirements	10
SBA 30 Analyzing and Improving Business and System Processes	12
SBA 40 Acquiring, Understanding, Documenting and Modeling Business Data	14
SBA 50 Accelerating the System Analysis Process (ASAP)	16
SBA 60 Testing Business and System Requirements	18
SBA 70 Developing Test Cases and Scripts	20
SBA 80 Managing and Leading a Business and System Analysis Project	**
SBA 100-Intense 3-4 Week Program That Merges All Seminars into a Workshop	
Instructors' Bios	23

\*\*In development and testing

*Blank on purpose.*

# **A Business and System Analysis Curriculum**

Presented by Hathaway & Associates, Inc.

## **Why?**

Why have a curriculum dedicated to Business and System Requirements?

According to the Standish Group's 1994 and 1997 CHAOS reports, the most significant contributing factors to project failure could be traced directly to requirements.

In a recent Sequent Computer Systems Inc. study of about 500 IT managers the most frequently named cause of project failure was poorly defined and changing requirements.

A summary of other studies on the dominant reasons that projects fail indicates that the three most common failure points in developing, enhancing or changing business systems today are

Incomplete and/or incorrect requirements (both business and system)

Incomplete or ineffective testing (often due to poor requirements)

Improperly managed projects (Either incompetent project management, or incomplete and/or incorrect requirements)

## **Our Answer**

Hathaway & Associates, Inc.'s new Business and System Analysis Curriculum is designed to specifically address these three most common failure points. This Curriculum is targeted specifically for System or Business Analysts or for those professionals who are engaged in this discipline.

The Hathaway and Associates, Inc.'s, Business and System Analysis Curriculum includes instruction in the following subjects:

Defining problems and opportunities

Defining business and system requirements

Analyzing and understanding existing business situations

Documenting and improving business and system processes

Documenting, analyzing and acquiring business data

Improving business processes (computer and non-computer)

Tracking requirements from initial development to implementation

Test planning, scripting and case development

Managing and leading a business and system analysis project

# **A Business and System Analysis Curriculum**

## **Instructional Optimization**

In addition to focusing on the three most common failure points, the curriculum also recognizes the need to optimize the training experience and the training costs. To do this, all seminars:

Are two to three days long. This has been found to be the most optimum duration from over a total of 300 person years (almost 5000 seminars) of instructional experience.

Are case study based.

Use the same case study. (This provides for continuity and deeper involvement of the participant.)

Appropriately limit the number of participants.

Focus on only one or two subjects.

Each seminar provides links to all the other seminars through a common language, case study and umbrella Business and System Analysis methodology.

## **SNAP (the Skills Needs Assessment Process)**

Each seminar in the curriculum can be tailored and optimized not only for your organization, but also, for a specific mix of participants in a particular seminar. The SNAP system uses two major steps to accomplish this optimization.

The first step allows your organization to pre-define the importance and set the desired participant learning targets for each of the objectives for each seminar. This is accomplished through a management/staff learning expectation survey. This allows us, with your help, to set expected learning outcomes.

The second step allows us (and you, if so desired) to determine the current knowledge or experience level of each potential participant. This is accomplished through a participant knowledge, self-evaluation survey. This allows us to tailor the seminar to account for the knowledge possessed compared to the desired target.

We believe this combination of seminar approach and fine tuning creates the most efficient learning environment possible and optimizes the participants' time and your investment.

# A Business and System Analysis Curriculum

## Who is Hathaway & Associates, Inc.?

---

Hathaway & Associates, Inc. is an international consulting firm with over 25 years of experience. We focus on topics related to the front end of successful business systems development:

- Requirements Definition
- Information Engineering/Quality
- Requirements Driven Testing
- Client/Server Concepts
- Process Improvement
- Early and Rapid Prototyping
- Quality Assurance and Testing
- Early Life Cycle Project Management

## We Provide Consulting Services . . .

---

You can use our expertise to improve your methods, techniques or understanding for:

- Shortening the Development Life Cycle
- JAD\* Facilitation
- JAD Facilitation Training
- Methodology Development or Purchase
- Reviewing Your Development Methodology
- Application Development Consulting
- Testing Consulting
- Project Coaching and Consulting

\*We call them ASAPs (Accelerated System Analysis Process)

## We Provide Training Services . . .

---

Some of the workshops and training seminars we offer include:

- **A Business and System Analysis Curriculum**
- Data Modeling
- Process Improvement
- Information Engineering
- Testing
- Client/Server Development
- Prototyping
- Various Other Modeling Techniques
- Object-Oriented Concepts
- And Over 200 Other Titles

All our programs are modular, so you can tailor our offerings to your specific requirements. Or, we can custom-develop a unique workshop for you. We offer our workshops on-site, or can train your trainers, certify them, and license your organization to use our materials.

## Who are the experts associated with Hathaway & Associates, Inc.?

---

You may not recognize the names of my associates. In fact, some of us have been paid not to publish our work, share our methods, or to consult with our customers' competitors. All of us are part of a network and for convenience are referred to as The Summit Group.

Tom Hathaway,	Hathaway & Associates	Jean Paul Thomas,	Thomas Enterprises
Daniel Myers,	Myers & Associates, Inc.	Greg Fouquet,	Fouquet Associates
Brenda Helms,	Myers & Associates, Inc.	Ayla Donalson,	Denali Consulting
Stacy Goff,	Goff Associates	Scott Goldfarb,	Q/P Management Group

Each of us has over 20-25 years IS experience. We are definitely not new kids on the block.

# A Business and System Analysis Curriculum

## An Overview

<b>Seminar Name</b> <i>the next column lists prerequisites</i>	<b>Pre</b>	<b>Days</b>	<b>Synopsis</b>
SBA10 System Analysis: An Introduction to Techniques & Tools  <i>This Seminar or its equivalent is a prerequisite for most other seminars</i>	na	2	This covers the four major topics of Problem/Opportunity Definition Requirements Definition Fundamentals of Process Modeling Fundamentals of Data Requirements Definition (Intro to Data Modeling) And gives the participant an immediately usable set of techniques.
SBA15 Small Project Management  Although there are no prerequisites, this seminar is more effective with at least SBA10.	na	2	This seminar addresses the issue of poor project management by presenting the fundamentals of project management for a typical sized business and system analysis project. It is, in essence, applied project management and is based on the idea that a business and system analysis project can be thought of as a small project within larger development project. It uses a relevant case study to present the material. It introduces a project management tool specific to small projects.
SBA20 Defining Business and System Requirements	SBA 10	2	Expands the fundamentals with additional and advanced techniques to help define the all-important requirements.
SBA30 Analyzing and Improving Business and System Processes	SBA 10	2	Expands the fundamentals with additional and advanced techniques. It includes techniques for developing process models, analyzing process models, improving the processes themselves and creating new and improved process models based on requirements.
SBA40 Acquiring, Understanding, Documenting and Modeling Business Data	SBA 10	2	Expands the fundamentals with additional and advanced techniques. It includes techniques for analyzing business data and for creating a business orientated data model that reflects business data usage and requirements.

# A Business and System Analysis Curriculum

## An Overview

Seminar Name <i>the next column lists prerequisites</i>	Pre	Days	Synopsis
SBA50 Accelerating the System Analysis Process (ASAP)	SBA 20 and SBA 30	2-3	This seminar teaches a set of techniques designed to reduce the time it takes to create a Requirements Definition Document. It does not teach a different set of techniques but instead teaches how to accomplish the techniques in a significantly shorter time (ASAP, As Soon As Possible). The extra day is devoted to a workshop that simulates an actual ASAP session.
SBA60 Testing Business and System Requirements  This course requires SBA20 or a <u>very</u> strong background in requirement definition techniques.	SBA 20	2	Expands the Requirements Definition seminar's techniques with additional and advanced techniques for tracking requirements throughout the development process. It includes techniques for testing requirements during both Design and Implementation.
SBA70 Developing Test Cases and Scripts	SBA 60	2	Expands the Tracking and Testing Requirements seminar's techniques with additional and advanced techniques for Planning, Scripting and developing Specific test cases throughout the development process. It includes techniques for testing requirements during coding.
SBA 80 Managing / Leading A Business / System Analysis Project	SBA 10-60	2-3	This seminar presents the fundamentals of project management in the context of a business and system analysis project. It is, in essence, applied project management. Because the participants have had all the previous courses, it uses the previous case studies to present the material. It includes MS project templates suitable for use in real world projects.
SBA100 Business and System Analysis "Boot Camp"		na	This is an intense 3-4 week program that merges all the seminars (except 15) into a seamless workshop. It is an "ASAP" version of the <b>Business and System Analysis Curriculum</b> .

# **SBA-10 System Analysis: An Introduction to Techniques and Tools**

## **Description**

---

**Duration: 2 days**

This seminar introduces all the basic concepts and techniques relevant to Business and System Analysis. It covers the four major topics of:

- Problem/Opportunity Definition
- Requirements Definition
- Fundamentals of Process Modeling
- Fundamentals of Data Requirements Definition (A brief Introduction to Data Modeling)

The program gives the participant an immediately usable set of techniques and builds the foundation for the more detailed and advanced concepts in the remainder of the curriculum.

## **Learning Objectives:** on completion of this seminar, successful participants will...

---

- Write clear, easy-to-understand problem statements
- Identify the difference between problems and symptoms
- Extract problem statements from written documents
- Clarify, rationalize and analyze requirements
- Use the 10 critical system questions as a check list for completeness
- Decompose requirements' sentences into the five types of requirements
- Write clear, unambiguous requirements sentences
- Prioritize requirements
- Identify high-risk requirements
- Document existing processes
- Develop process maps of existing situations
- Draw data model diagrams
- Construct a data model based on existing system documentation
- Use a data model to document how the business views its data

## **Target Audience**

---

Business process owners and managers, Business Analysts, System Analysts, Requirements Definition Specialists, Process Improvement Specialists and anyone specifically charged with managing and/or improving a process.

# **SBA-10 System Analysis: An Introduction to Techniques and Tools**

## **Table of Contents**

---

### **1. General Introduction**

- What is an Information System?
- What are the Critical Success Factors and Cost of Errors?
- When is Analysis and Design Finished?
- Documenting Questions
- The Importance of Graphical Communication

### **2. Problem and Opportunity Definition**

- Problem Definition
- Identifying Priority from a Problem Statement
- 10 Critical Questions

### **3. Modeling Processes**

- Process Models Graphic Conventions
- Creating a Process Model
- Simplifying Process Models

### **4. Modeling Data**

- Data Modeling Graphic Conventions
- Creating a Data Model
- Normalization Discussion
- E/R Diagrams – Summary
- Attributes of Entities and Their Definitions

### **5. Requirements Definition Part 1 - Natural Language**

- Natural Language
- Five Types of System Requirements
- Sources of Requirements
- Developing Requirements Statements
- Decomposing the Requirements for Understanding
- Drawing Models of Requirements
- Performance Requirements
- Constraints
- Identifying High Risk Requirements
- The Payback

### **6. Methodologies**

### **7. Bibliography**

# SBA-15 Small Project Management

## Description

Duration: 2 days

As mentioned earlier, one of the major causes of project failure is poor project management. You spend up to 75% of your time in project-related work. Much of this work consists of small projects that you don't normally manage as projects. Rather, you treat it as *work that needs to be done by the end of the month*. Thus, this unmanaged work just "happens". In this era of rapid responsiveness and quality improvement, letting small projects "happen" is no longer acceptable.

Can our project management methods help small projects in the same way that methods help larger projects? **Yes!** This case-oriented workshop shows how to apply basic, proven techniques to managing, understanding and coordinating small projects. At the same time, the techniques are fully compatible with our methods for larger projects. Although this is a general project management course, all the techniques are applicable to Business and System Analysis Projects.

**Learning Objectives:** on completion of this seminar, successful participants will...

- Define Project Management. Discuss the unique challenges of small projects, the skills needed to make small projects successful, and the methods that can *keep* them small
- Describe the 3D Project Life Cycle; discuss the purpose and benefits of each project phase. Begin the project with clear definition of the business need
- Begin planning the project by prioritizing multiple current projects. Tailor the Small Project WBS Template to create a work plan framework at an appropriate level of detail
- Estimate activity effort and duration using the Small Project Worksheet. Describe how to produce more accurate, useful estimates
- Schedule the project, using methods that work best for one-person and multi-person staffing
- Discuss the importance of involving others in appropriate project activities, and the challenges and strategies for doing so
- Describe the use of Quality Assurance Reviews and Change Control in small projects
- Describe the activities of the Design and Deliver Phases and discuss the value of each to the project
- Apply minimum-effort project tracking methods and evaluate project progress.
- Scale Small Project Management techniques for smaller or larger projects. Describe the benefits of applying these small project management techniques

## Target Audience

This workshop is for every professional who spends time on small projects, namely, those projects that take up to 360-720 work-hours of effort and fewer than three months to complete. *Many Business and Systems Analysis projects fit these criteria.* Although the workshop focuses on techniques for managing small projects, the techniques will be useful as your projects grow larger.

## **Table of Contents**

---

### **1. Defining the Project**

- The Challenges of Small Projects
- The 3D Life Cycle
- SP10 Size Project and Plan First Phase
  - Forecast Project Size and Evaluate Risks
- SP11 State the Problem or Opportunity
- SP12 Define Scope and Objective
- SP13 Understand the Current Environment
- SP14 Define Requirements for an Acceptable Solution
- Small Project Look Back/Look Ahead
- Small Project Road Map Progress
- Relating SP1 Define to the Basic 9 Results

### **2. Planning the Project**

- SP15 Establish Project Priority
- SP19 Review Phase Results and Plan Next Phases
- The SP2 Design Phase Activities
  - SP24 Develop a Test and Validation Plan
- Plan the Next Phases: as Easy as A, B, C!
- Plan Step A. Structure Next Phase
  - Structure With Re-usable Small Project WBS Templates
- Plan Step B. Estimate Phase Activities
  - Activity-Level Estimating
  - High/Low Consensus Improves Activity Estimating
  - Converting Effort to Duration
- Plan Step C. Schedule the Project
  - Scheduling With a Calendar and/or a Gantt Chart

### **3. Coordinating Results**

- Leading by Involving Others
- Quality Assurance Reviews
- Controlling Change
- The SP3 Deliver Phase Activities
  - Forgotten Activities: Testing, Documenting & Training
- Minimalist Project Tracking
- SP37 Customer Accepts Solution
- SP39 Evaluate Solution and Process
- Scaling the SPM Techniques for Larger Projects

### **Case Study**

#### **The Small Project Guide reference**

#### **Appendix: MiniDoc (for very small projects) and Bibliography**

# SBA-20 Defining Business and System Requirements

## Description

Duration: 2 days

---

Business and system requirements are the foundation upon which all systems are constructed. They are the key connection points between the business personnel who will use the system and the people who will develop the system. Unfortunately these two groups often speak different languages and think in different ways. The requirements are most often written or verbal and require interpretation and assumptions on the part of the developer. It is these very interpretations and assumptions that eventually lead to a system that “is not quite what the business expected.”

This course is designed to give you a proven set of techniques, methods and tricks to help you write clear, unambiguous, complete requirements. They apply whether you are from the business or development side of the house. There is also a set of techniques to help you evaluate requirements written by someone else. This set of techniques helps you to know what you know, know what you don't know, and reveal what you didn't know you didn't know.

**Learning Objectives:** on completion of this seminar, successful participants will . . .

---

- Write clear, easy-to-understand problem statements
- Identify the difference between problems and symptoms
- Extract problem statements from written documents
- Use a problem statement to help determine priority
- Describe the problem with language as a requirement definition technique
- Clarify, rationalize and analyze requirements
- Decompose requirements sentences into the five types of requirements
- Develop a list of questions about the previously written requirements for use in discussions with the customer
- Write clear, unambiguous requirements sentences
- Prioritize requirements
- Identify high risk requirements
- List requirements definition techniques
- Use vignette to describe detailed requirements
- Create an event/response model and identify roles
- Describe how prototyping can help define requirements

## Target Audience

---

Business process users and managers, Business Analysts, System Analysts, System Designers and anyone else involved in defining or deciphering business or system requirements.

# SBA-20 Defining Business and System Requirements

## Table of Contents

---

### 1. General Introduction

What is an Information System?

What are the Critical Success Factors and Cost of Errors?

When is Requirements Definition Finished?

Documenting Questions

### 2. Problem and Opportunity Definition

Problem Definition

Identifying Priority from a Problem Statement

10 Critical Questions

### 3. Requirements Definition Part 1 - Natural Language

Natural Language

Five Types of Requirements

Capturing the Requirements

Developing Requirements Statements

Decomposing the Requirements

Grouping Requirements

Extracting Requirements From a System Vision Statement

Performance Requirements

Constraints

Determining Priority of Requirements

Identifying High Risk Requirements

### 4. Requirements Definition Part 2 - Visible System Modeling

Graphical (Visible) Techniques

Logic Requirements

Creating an Event/Response Model

Prototyping as a Requirements Definition Technique

### 5. Case Study

### 6. Appendices

Appendix 1 – Technique Cross Reference

Appendix 2 – Possible Answers

Appendix 3 - Bibliography

# SBA-30 Analyzing and Improving Business and System Processes

## Description

Duration: 2 days

---

Business processes are the day to day drivers for most businesses. They are often the key connection points between the business and the customer. They are most often a combination of business operating procedures and supporting computer systems. Yet, they are usually undocumented, misunderstood, un-optimized, and inefficient.

This course is designed to give you a time proven set of techniques, methods, and tricks to help you analyze and improve both the business and system processes. These approaches will help you document what is really happening and increase your understanding of the actual business functions involved. With this firm foundation in place, other techniques will help you to optimize and improve what exists or to design a new system.

The seminar uses a blend of lecture (35%), exercises (25%) and a case study (40%) with high participant interaction.

**Learning Objectives:** on completion of this seminar, successful participants will . . .

---

- Document existing processes
- Develop process maps of existing situations
- Document each specific process using the most appropriate technique
- Capture imbedded business rules
- Use the process models to identify
  - problems and their locations
  - timing and timing conflicts
  - exceptions and how they are handled
- Communicate the operation of the process to other business personnel
- Develop and implement short-term improvements
- Develop a list of improvement and/or new design requirements

## Target Audience

---

Business process owners and managers, Business Analysts, System Analysts, Requirements Definition Specialists, Process Improvement Specialists and anyone specifically charged with managing and/or improving a process.

# **SBA-30 Analyzing and Improving Business and System Processes**

## **Table of Contents**

---

### **1. Documenting Business Processes**

Process Models (Graphical Conventions)

Documenting Processes (Techniques)

Developing Detailed Process Specifications

Capturing Business Rules

Two Special Presentation Techniques (Main Line and Wall Chart)

### **2. Analyzing Business Process (using process models)**

Overview

Functional Analysis

Do you understand the function?

Why do functions occur in the order they do?

Problem Analysis

Determining Where Problems are Located and How they are Related

Timing Analysis

When do functions happen?

How long do functions take?

Is there slack (idle) time?

Are there items in queues?

Exception Analysis

Finding and Documenting Special Situations and Rules

Information Analysis

What data does a process require?

Where does it come from?

Short Term Solutions

Applying What You Have Learned to Create Immediate Improvements

### **3. Long Term Solutions – An Overview of the Re-design Process**

### **4. Case Study**

### **5. Appendices**

Appendix 1 – Technique Cross Reference

Appendix 2 – Possible Answers

Appendix 3 - Bibliography

# SBA-40 Acquiring, Understanding, Documenting and Modeling Business Data

## Description

Duration: 2 days

Data represents the atomic level of today's information systems. Data is the building blocks upon which everything else depends. In a very real sense if you get the data right, the rest will follow. If you get the data wrong, the system may never recover. In order for the data to be right, it must reflect how the business thinks about and uses its data. This information exists in two primary locations; user views (reports, screens, etc.) of the system and in the minds of the business personnel. Often business personnel do not even know that they have this knowledge. Therefore, it is up to IT professionals to capture and document this 'data about data' in a meaningful way to the non-technical end user and also to systems personnel.

This course is designed to give you a time proven set of techniques, methods, and tricks to help you acquire, understand, document, and model business data from both a business and technical point view. This course will give you both an intuitive top-down approach to data modeling and a rigorous bottom-up approach (normalization). The course will show you how to study the information needs represented by an existing system and how to present this information to other people. The course also teaches you how to create a data design from requirements and how to modify an existing data design for new data requirements. Finally, the course looks at some advanced concepts to help you better understand the technical side of data modeling and presentation.

**Learning Objectives:** on completion of this seminar, successful participants will . . .

- Draw data model diagrams
- Construct a data model based on existing system documentation
- Analyze user views, (screens, reports, etc.) to modify a data model
- Place attributes based on the normalization test
- Define attributes (metadata or characteristics)
- Create a data model from requirements
- Modify an existing data model based on new requirements
- Evaluate a data model for full normalization and correctness
- Critique and review an existing data model
- Combine data and process models into a single, consistent model (requires some process modeling knowledge and is optional)
- Discuss how to modify a logical design for known constraints
- Discuss the impact of a network on data models
- Determine the data sources and identify conversion projects
- Discuss de-normalization as a way to meet real world constraints
- Discuss higher normal forms
- Develop data models using
  - Inheritance (using types and sub-types), Time sensitive data, Complex relationships
  - Entity life cycles

## Target Audience

Data Analysts, Data Administrators, Business Analysts, System Analysts, Requirements Definition Specialists, Business process owners and anyone specifically charged with managing, understanding and/or improving information use.

# **SBA-40 Acquiring, Understanding, Documenting and Modeling Business Data**

## **Table of Contents**

---

### **1. Creating a Data Model for the Business**

The Data Foundation  
Data Modeling Graphic Conventions  
Basic Modeling Techniques  
Defining the Entities  
Normalization  
Summary

### **2. Understanding (Using) the Business Data Models**

Analyzing User Views  
Modifying the Data Model for User Views  
Attributes and Their Characteristics

### **3. Designing a Data Model for the Application**

Modify a Current System Data Model to Become a New System Data Model  
Designing Keys  
Creating a New System Data Model from Scratch  
Summary

### **4. Physical Design Considerations**

Modifying a logical design for known constraints.  
Defining the impact of a network on data models.  
Determine the data sources and identify conversion projects.  
Discuss de-normalization as a way to meet real world constraints.

### **5. Advanced Concepts (optional)**

Use of Higher Normal Forms  
Developing Data Models Using

- Inheritance (using types and sub-types)
- Time sensitive data
- Complex relationships
- Entity life cycles

### **6. Appendices**

Appendix 1 – Technique Cross Reference  
Appendix 2 – Possible Answers  
Appendix 3 - Bibliography

# SBA-50 Accelerating the System Analysis Process

## Description

Duration: 2-3 days

Modern system development techniques often take too much time and promise a quality that many feel is unaffordable. Quality is often sacrificed to meet the deadline, and another maintenance nightmare is born. However, quality and rapid delivery do not have to be mutually exclusive choices. Quality is essential to the future, whereas time is the essence of the present.

This seminar addresses the tools and techniques that are used in concepts such as Joint Application Design (JAD) from IBM, Rapid Application Development (RAD) as defined by James Martin, or Accelerated Systems Analysis Process (ASAP™) by Myers & Associates. All of these approaches drastically shorten the time for crucial early project phases while increasing the quality of the early deliverables.

This seminar is based on the idea that the participant already knows how to accelerate the life cycle but has not had a chance to think about it. This seminar shows that there is nothing magical about the approach.

**Learning Objectives:** on completion of this seminar, successful participants will . . .

- Identify what causes traditional projects to take so long
- Be able to organize and schedule an accelerated session
- Determine personal strengths and possible weaknesses as a session facilitator
- Develop an action plan for overcoming personal weakness and for maintaining strengths
- Identify possible “trouble” participants and describe methods for dealing with them
- Evaluate proposed projects for suitability for applying accelerated methods
- Describe the use of drawing and other PC tools during an accelerated session
- Be able to organize the support equipment needed to perform an accelerated session
- Describe and defend the optimum facility for conducting accelerated sessions
- Be able to apply a variety of scheduling techniques to manage the working sessions
- Use a methodology in preparing accelerated sessions
- Discuss the importance and critical success nature of pre-sessions
- Use open issue, questions, and post-session task lists
- List the risks of accelerating the development processes and apply risk reduction approaches

## Target Audience

The target audience is systems analysts, business analysts, systems designers, systems and client managers and end users who are interested in expediting the process of defining, developing and delivering high-quality information systems.

# **SBA-50 Accelerating the System Analysis Process**

## **Table of Contents**

---

- 1. General Introduction and Expectations**
  - The promise of modern systems development approaches and their problems
  - The promises of accelerated techniques
  - Why do traditional projects take so long and how can a project be accelerated?
  - What are the risks of acceleration?
- 2. Methodologies and Project Selection**
  - Using a methodology to support acceleration
  - The value of early completion
- 3. Pre-ASAP Session Preparation**
  - The pre-session meeting and ASAP session participation selection
  - Session Pre-assignments and Pre-education (training)
- 4. Scheduling Techniques**
  - Zipper, overlap, split task and deliverable based
  - Scheduling split sessions
  - Adjusting the schedule on the fly
  - Using open issue and question list as scheduling aids
- 5. The ASAP Session (Facilitation/Support Team and Participant Behaviors)**
  - Leader:**
    - “Ideal” facilitator profiles
    - Identifying your strengths and weaknesses
    - Subject matter knowledge requirements
  - Support Person:**
    - Typical support tasks during a session
    - Subject matter knowledge requirements
    - Managing the facilitator
    - Facilitator/support interaction
  - Participants:**
    - Participants – the rest of the team
    - Striving for balanced session participation
    - Profiles of difficult participants and how to manage them
- 6. Other Uses of ASAP Techniques**
  - Acceleration and the Development Life Cycle
  - Prototyping and ASAPs
  - Identifying the right approach and the general deliverables for various sessions
  - Creating and managing work documents
- 7. Session Site, Equipment and “Stuff” Considerations**
  - Ideal site requirements
  - Miscellaneous Stuff and General Equipment
  - Essential Hardware & Software
- 8. Closing and Follow-up**
  - Clarifying and assigning open issues and creating the post-session task list
  - Evaluating the session
  - Document distribution
  - Possible post-session reactions
  - Maintaining project momentum
  - The risks revisited: How can they be eliminated or mitigated?



## SBA-60 Testing Business and System Requirements

### Description

---

**Duration: 2 days**

Testing is the most time-consuming activity in the system development life cycle. It often accounts for over 50% of the effort required to deliver new or upgraded technology. Effective test case identification and test planning can drastically reduce the time required to produce a solution that meets your quality standards. This seminar introduces the techniques and terminology of information system test planning and preparation. The topics are presented in non-technical language to eliminate need for an extensive information technology background.

Two philosophies underlie all the techniques presented in this workshop:

- a. Test an information system at the appropriate level of detail to reduce the risk of exposure caused by a potential failure.
- b. Testing does not follow system delivery, it is an integral part of the creative process and begins at Requirements Definition and permeates the entire system development process.

### **Learning Objectives:** on completion of this seminar, successful participants will...

---

- Evaluate how their organization tests information systems
- Plan testing for unit, integration and system test phases
- Identify when testing starts and finishes
- Evaluate business requirements for testability
- Prepare and conduct quality assurance walk-throughs
- Test requirements against business problems
- Define test cases from decomposed requirement statements
- Extract behavioral test cases from end-user documentation
- Create test plans to manage risk and reduce exposure
- Identify resources required for specific testing activities
- List 7 types of testing tools and describe their use
- Established the need for release, version, and configuration tests
- Prepare for stress, volume, and usability testing
- Evaluate the use of facilitated sessions in test planning

### **Target Audience**

---

Project Leaders, Business Analysts, Managers, End-Users or anyone involved in the system testing process who is interested in using the most effective ways to validate an information system.



## Table of Contents

---

### 1. Testing Information Systems

- The purpose of information system testing
- Major testing activities and deliverables
- Testing and system delivery methodologies
- A phased approach to testing

### 2. Initiating an Error Detection Process

- Conducting effective walk-throughs
- System requirements versus business problems
- System design validation
- Beware before you leap

### 3. Planning Test Execution

- Initiating and estimating testing
- Components of test plans
- Minimizing time without sacrificing quality
- Selecting the appropriate test cases
- When have you tested enough?

### 4. Identifying Test Cases

- Business models as a baseline
- Requirements based testing
- Behavioral tests from end-user documentation
- Testing business events

### 5. Managing the Test Environment

- Tools, techniques, and tricks
- Effective manual testing techniques
- Categories of automated testing tools
- Environmental influences on systems

### 6. Inflicting Change

- Setting priorities for you and your organization
- Designing the future

### 7. Case Study



## SBA-70 Developing Test Cases and Scripts

### Description

**Duration: 2 days**

Suitable testing practices and methods are the cornerstones of an effective testing environment. The testing environment has to integrate tools, techniques, technology, and training to support a testing strategy that makes sound business sense. This seminar covers the details of the techniques and terminology of information system testing. The topics are presented in non-technical language to minimize the need for an information technology background.

**Learning Objectives:** on completion of this seminar, successful participants will...

- Define a regression test environment suitable for their organization
- Use 3 coverage levels to determine system reliability
- Compute how many tests are needed to achieve desired coverage
- Plan test cases based on 10 different software error categories
- Develop test cases based on component logic
- Distinguish black box from clear box tests
- Evaluate drivers and stubs for piecemeal testing
- Create audience-centric test scripts
- Engineer test data with equivalence classes
- Minimize the number of test cases needed with boundary value analysis
- Assemble test cases into test sets
- Sequence test runs for optimal results
- Establish the criteria for user-friendly problem reports
- Determine data dependency tests from Entity/Relationship diagrams
- Validate the completeness of a set of test cases
- Defend the need for a common testing methodology
- List the elements of well-documented test cases

### Target Audience

Project Leaders, Business Analysts, Managers, End-Users, or anyone involved in the system testing process who is interested in using the most effective ways to validate an information system.



## Table of Contents

---

### 1. General Introduction

- Testable components
- Testing activities and deliverables
- Testing and the system development life cycle
- Phases of testing

### 2. Developing Behavioral Tests

- Dimensions of system behavior
- Defining behavioral testing
- Determining behavioral objectives
- Unit, integration and system behavior

### 3. Testing Component Structures

- Identifying structural tests
- Selecting coverage levels
- Stubs and drivers design
- Validating data model constraints
- Using defect clustering

### 4. Engineering Test Data

- Sources of test data
- Identifying equivalence classes
- Targeting error sources
- Designing for regression

### 5. Designing Test Scripts

- Testing and documentation
- Establishing the target audience
- Writing the script
- Connecting scripts and cases

### 6. Optimizing Test Execution

- Problem reporting and tracking
- Regression versus baseline testing
- Selecting regression tests
- Building test sets

### 7. Making a Difference

- Priorities for you and your organization
- Preparing for change

*A final page of blankness.*

## THOMAS E. HATHAWAY

President and founder of Hathaway & Associates, Inc. with over 25 years experience in software engineering, Tom's technical expertise covers facilitation, business analysis, system analysis, system design and testing. His extensive experience spans many industries, including insurance, energy, manufacturing, construction, banking, medicine, and telephony. He has presented hundreds of seminars and workshops to thousands of participants worldwide in all areas of his expertise.

Tom's focus is on tools and techniques for accelerating the delivery of information technology for the business community. He develops, teaches and applies methods to:

- ❖ *facilitate meetings and workshops*
- ❖ *define business problems and requirements*
- ❖ *model processes, data and user interfaces*
- ❖ *analyze, design and document information systems*
- ❖ *develop test strategies, test plans, and test cases*

for mission-critical information system projects. His facilitation style is relaxed. Whether presenting or facilitating, Tom expresses complex issues in understandable terms without talking down to his audience. His primary objective is effective communication.

Extensive, international experience coupled with natural interpersonal skills, high intelligence (MENSA member) and a wry sense of humor build a dynamic and informative facilitator and presenter.

Current clients include AT&T, Honeywell, Northwest Airlines, Federal Reserve Banks, State of Maine, CSX Transportation, Hughes Aircraft, McDonnell Douglas, Associates Financial Services, DeKalb Genetics, Crowe Chizek, General Communication, Fiserv, Cliffstar, MTS Communications, Chicago Bridge & Iron, Steelcase, Universal Card Services, and others.

## **DANIEL A. MYERS**

Dan Myers, President of Myers and Associates, Inc., is an international consultant in the field of system analysis and design. He has over 25 years experience in Information System Analysis/Design and System Development Methodologies. He has helped hundreds of companies\* bring their information systems to new levels of efficiency and productivity through consulting, training and methodology implementation.

Mr. Myers specializes in the front end of the system development process, with an emphasis on business system analysis, requirements definition and system design. His work as an information systems professional, manager of an Information Systems department, consultant for CIBAR and 18 years with his own company have given him extensive experience in designing, implementing and managing information systems. He has worked with numerous software vendors to help develop both their product and courses for their products.

Dan has a special interest in accelerating (compressing) the analysis and design process and in using computer tools to support this process. Watching clients' struggle with development requiring too much time led to his developing a high-speed, time compressed version of system development called the ASAP, Accelerated Systems Analysis Process (also known as JAD). He performed his first "JAD" session in 1976 and has successfully completed over 200 additional sessions (without a single failure). In addition he has taught many other IS professionals how to successfully perform JADs.

Dan is a practitioner and believer in the use of well-defined repeatable methods. He has been writing and improving system development methodologies since 1979. He is a co-author of the commercially available system development methodology, THE Guide. Dan wrote THE Guide imbedding Total Quality Management concepts and with his co-author created tailored, multiple project size versions. In addition, Dan completed work on 2000-Won!, a year 2000 date solution methodology in October, 1996. This methodology helped many companies attack the year 2000 problem.

Dan holds degrees in both Chemistry and Physics, has taught at the secondary and university levels and has been delivering IS seminars and speeches since 1975. He was a recipient of AAPT's "Outstanding Instructor" award for his work in developing computer assisted instruction materials. His work with methodologies and time compression has led to invitations to present at national and international conferences on tools, techniques and methodologies and their place in the industry.

\*List available upon request.

## **JEAN-PAUL THOMAS**

Jean-Paul Thomas is the founder of a Chicago-based firm that specializes in developing and implementing total business solutions. These solutions range from stand-alone desktop PC systems to LAN/WAN Client Server applications. His experience spans thirty years in the information technology industry.

In those years, Mr. Thomas has worked as a programmer, analyst, development manager, and internal consultant for several Fortune 500 companies. These experiences plus those gained through his own company in software development, hardware/network configuration and project management provide the foundation for consulting/training by someone who has practical experiences upon which to draw.

He has consulted in the areas of business process/strategy facilitation, rapid application development (RAD and JAD) techniques, and project management. His efforts in these areas range from facilitating international business deployment strategy to assisting companies in evaluating project management standards.

For the past two years Mr. Thomas has been involved the development, support and international rollout of a Y2K scanning product. During this period, he has also contributed technical expertise/review to nationally available Client Server and Project Management courses.

Clients include private industry, governmental agencies as well as educational concerns in the United States, Canada, South America and Europe.