

## Course Catalog

# **GLOBAL** EDUCATION SERVICES



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# An Introduction to Global Education Services

## Get the knowledge you need to succeed

Make each and every project a success with expert training from Software AG. Choose from a wide range of education and certification options to increase your skills and knowledge across the entire project life cycle. Train in a public classroom, at your site or online. We can even custom a training plan to meet your specific needs and goals, and to accelerate your project success. Take a closer look at the services we can offer your organization.

### **Training Needs Analysis: Identify skills and training requirements**

This service is designed to support you identifying the current skill set and training requirements of your teams. Global Education Services helps you:

#### ***Determine business requirements***

- Understand business strategies
- Identify the key projects, timeframes and resources
- Determine learning and appropriate certification requirements
- Identify the learning objectives and categorize objectives into key roles
- Determine timelines for meeting both the project and learning objectives

#### ***Assess current knowledge levels***

- Identify the current knowledge levels of the teams

#### ***Perform gap analysis***

- Compare current skills to the required knowledge level for project and overall strategy and build an appropriate training plan

#### ***Report training recommendations***

At the conclusion of the assessment, Software AG will present a proposed training plan to successfully meet the outlined objectives. The report includes recommendations on:

- Suggested role-based and optimized learning paths
- Appropriate training delivery methods
- Required certifications

### **Training: Gain knowledge and expertise**

Software AG training courses cover the core of all Software AG technologies, including best practices as well as product agnostic skills related to the Software AG portfolio. Our certified instructors are subject matter experts, having both practical and teaching experience. Software AG courses are designed to emphasize best practices and project-specific expertise. Individuals and organizations can easily identify relevant courses and plan learning paths through role and activity-based curriculum tracks.

Global Education Services offers a broad variety of delivery options, including:

- Standard public training
- Standard or customized private classroom training
- Public or private remote training courses (virtual classroom)
- Various eLearning options
- Mentoring workshops
- Education consulting services

You can combine any of these options to meet your individual needs and to make training as convenient and as efficient possible.

### **Mentoring: Establish self-sufficiency on the job**

Software AG provides hands-on training for organizations that want to bridge classroom learning with on-the-job execution. Following a formal training course, the instructor joins and guides the project team during the first days of project implementation. In a case study environment, students will learn to use the different Software AG software components together, as these software components are used in isolation on the formal standard courses, and students will gain realistic project experience.

Mentoring is ideal for customers to accelerate their Software AG products and technologies.

### **webMethods Post Training Support / Remote Coaching**

This service is a continuation of the delivery of our formal training offering. A team of experienced webMethods experts will support your webMethods team following the participation and completion of a webMethods training course for an agreed period of time. Our webMethods experts will support and clarify all questions that relate to the various content and exercises covered within the respective training course.

This service is available to your webMethods team via telephone or e-mail channels and other supporting tools may also be used (such as desktop sharing etc.).

### **Certification: Measure learning success**

As part of our continued commitment to building competency on Software AG technology, Software AG Global Education Services offers a number of certification paths focused on Software AG technology. The Software AG Certification Program objectively measures and validates a project member's knowledge and expertise gained on Software AG technologies and provides the following benefits:

#### ***For Project Team Members***

- Increases long-term career and professional opportunities
- Establishes credibility and differentiation among peers by measuring the knowledge and proficiency gained
- Provides industry recognition and endorsement as a Software AG Certified Professional
- Provides the individual with a Software AG-branded certificate to identify Software AG Certified Professionals

#### ***For Enterprises***

- Provides a management and auditing tool that objectively benchmarks, measures and validates role-based competency on Software AG technology
- Enables employee retention by facilitating long-term career planning and professional development paths
- Provides a baseline for hiring criteria
- Increases project team members' productivity

For further details please visit <http://www.softwareag.com/corporate/service/training/certification/default.asp>

## Methodology Seminars

### Think differently – Create innovation! An introduction to Design Thinking

**Description:**

Sound familiar? For years, you have been taking the same route to work. Then one day a colleague gives you a ride and you suddenly realize that a different route is actually much faster. The look outside the box opens up new possibilities in everyday life. But how can we bring new ideas into product development?

This training provides a first insight into the process of Design Thinking. Participants gather in teams to manage a defined challenge and learn about hands-on techniques and tools that help them to express their own inspiration and creativity. They also transfer the results into user-oriented concepts and furthermore into successful, innovative software concepts.

**Audience:**

Product managers, project/IT managers, developers, consultants

**Topics:**

At the end of this course, you will have:

- A general understanding of the Design Thinking approach and its phases
- Knowledge about innovative product concept development

**Prerequisites:**

None

**Duration:**

2 days

**Content:**

Innovative, open-minded and iterative product concept development with the Design Thinking approach which includes:

- Planning an innovative user-centered project
- Gathering insights from users
- Analyzing findings
- Creating innovative ideas with creativity techniques
- Creating prototypes
- Testing prototypes with users

### Communicating ideas and solutions! Sketching: Training to visualize easily and quickly

**Description:**

Images stick in the mind! Sketching is a quick and effective way to express thoughts and solutions to customers and teams. This training conveys the basics of sketching. No drawing experience is required! Participants learn how to draw simple objects as well as scenes and emotions with only a few lines. During the training, they create a set of objects for flipchart or whiteboard that can easily be integrated into their daily work.

**Audience:**

Product managers, project/IT managers, developers, consultants

**Topics:**

At the end of this course, you will:

- Have a basic repertoire of figures, symbols, objects and text boxes
- Be able to create your own sketched elements library
- Know how to best write on flipcharts and whiteboards
- Be able to draw basic workshop posters

**Prerequisites:**

None

**Duration:**

1 day

**Content:**

- Basic sketching techniques
- Sketching text boxes, arrows and objects
- Strategies to translate words into images
- Sketching people and emotions
- Translating situations into scenes
- How to best write on flipchart and whiteboards

## Innovate your product!

Adapting the Design Thinking approach to your challenge

### Description:

Need to innovate a product? Need to stay competitive? But you don't know where to start?

This training provides an insight into the Design Thinking approach and adapts all methods needed to innovate your own product. During the first day, participants will gather theoretical knowledge about the Design Thinking approach as well as what needs to be considered while planning their Design Thinking project. On the second day, they will be taught how to find out who the users are, about their insights as well as how to translate the findings in personas, usage scenarios and requirements. The third day offers knowledge about creating innovative ideas, how to translate them into UI paper prototypes and how to test them with users. The whole training balances theoretical input and hands-on experience.

### Audience:

Product managers, project/IT managers, developers, consultants

### Objectives:

At the end of the course, you will know how to:

- Define a product vision
- Gather user insights
- Translate the insights and document them in personas, usage scenarios and requirements
- Generate innovative ideas
- Create and test UI paper prototypes

### Prerequisites:

- No skills in sketching required
- Definition of a topic/challenge

### Duration:

3 days

### Content:

- Defining product vision
- Gathering insights from users and analyzing findings
- Learning sketching basics to create storyboards to visualize scenarios
- Learning design principles
- Using the Design Studio method to create UI prototypes
- Evaluate the UI prototypes with users

## Scrum Basics Training

### Description:

ScrumBasics Training gives you all the tools and information you need to get started with Scrum and to understand the benefits of being agile with Scrum. You will find out about the foundations of the Scrum framework, its roles, meetings and artifacts. The training also covers the three legs of empirical processes, inspection, adaption and transparency, as well as the five Agile values: focus, courage, openness, commitment and respect. All topics will be supported with best-practice examples and exercises throughout the course will help you gain hands-on experience.

### Audience:

Future ScrumMasters, team members (developers, testers, etc.), project/IT managers, consultants interested in the benefits of Scrum

### Topics:

At the end of this course, you will be able to:

- Run and participate in Sprint planning meetings, Daily Scrum meetings, Sprint Review meetings and Sprint retrospectives
- Know what makes a good ScrumMaster, product owner and team member
- Use Product and Sprint Backlogs as well as Burndown Charts

### Prerequisites:

None

### Duration:

2 days

### Content:

- General Knowledge: Agile Manifesto, Empirical Process, Agile Values
- Scrum Roles: ScrumMaster, Product Owner, Development Team
- Scrum Meetings: Sprint Planning, Daily Scrum, Sprint Review, Sprint Retrospective
- Scrum Artifacts: Product Backlog, Sprint Backlog, Burndown Chart, Product Increment

## The Process Improvement Experience Workshop

### Description:

The Process Improvement Experience is a must for organizations striving towards operational excellence and considering where to start. It is a must for business managers looking to find out what continuous improvement can do for their organization. The answer lies in this half-day workshop in which you will experience what business process improvement is all about and the benefits of continuous improvement.

The duration of the Process Improvement Experience is half a day. The workshop can be extended with more material to cater to your specific requirements. The ideal number of participants per group is 10 to 12. It is even possible to run multiple groups at the same time to bring a competitive element into play.

### Audience:

Anyone interested or engaged in process improvement, ranging from senior or middle management, team leads and quality managers to project managers, process consultants, business analysts and IT managers. Everyone in your organization takes part in a process. Potentially anyone can contribute to making process improvements. The power of this workshop lies in its simplicity and broad target audience. These two ingredients make the workshop of added value to your organization at all levels.

### Topics:

The workshop is particularly suited to create management awareness, support team building and jump start a process improvement initiative. Ideal as a kick-off for transformation programs, improvement projects or team building. The workshop has several learning objectives:

- Find out what is required to deliver continuous improvement
- Experience improving a business process based on Lean
- Understand the basics of Lean Thinking (business improvement theory) and possibilities in your organization
- Whole team is trained in process improvement principles
- Learning by doing, i.e., experiencing pragmatic examples, theory just as a summary

### Prerequisites:

None

### Duration:

4 hours

### Content:

In this workshop we make use of the basics of Lean Thinking. The core idea of Lean Thinking is about maximizing customer value while minimizing waste. We will investigate the seven different types of waste that occur and how to eliminate them. The Lean Toolbox consists of a number of methods and techniques that are aimed at simplifying and speeding up processes by mapping the value stream, identifying the processes that add value and eliminating the processes that add no value for the customer. The production process is subsequently organized so that the flow (of parts) through the process or system is as continuous as possible. We will discuss these Lean principles during the workshop and put them to practice.

### Outline of the workshop:

We lead you through the process of continuous improvement by playing a simulation game. Each participant represents a link in a supply chain, delivering assemble-to-order products to the customer. It is likely that your first attempt at simulating the supply chain will be chaotic. We, therefore, play three simulation rounds. After each simulation round, we provide you with feedback on the team's process performance. You will also learn tips and tricks on business process improvement based on Lean Thinking. By using our input you will begin to improve your process efficiency. After the third simulation round, your process should be a smooth running process—a process with flow.



## Lean Thinking Training

### Description:

What is Lean?

Lean teaches you a new way of looking at organizations. It is a method of improvement designed to eliminate waste and strip processes of any operations that do not add value. Lean allows an organization to make far more efficient use of materials and time, and in doing so, ultimately improving its ability to satisfy the customer demand. This leads to optimal operating results.

### Audience:

The training is suitable for anyone who is seeking to improve processes, such as a process manager or an executive looking for the best way to make improvements in the organization. The success of Lean is independent of the branch you are in and is proven whether you apply the methodology to profit or non-profit organization in the industrial or service sector. After the training you will be able to recognize and deal with waste in real-life situations.

### Topics:

Get Lean in two days. Learn to recognize, analyze, eliminate and prevent waste. In two days you will learn how Lean is best applied. You will use the theory behind this training in a way no book can teach you, i.e., in practice. Our trainers show you how to determine the value stream for the customer and various tools you can apply. You get started right away on a three-part simulation exercise. The course provides you with an immediate understanding of the obstacles and pitfalls you are likely to encounter and how to deal with them. It also emphasizes the power of Lean when it comes to application in your day-to-day work. You and your colleagues, or you and participants from different branches of the business are trained by the top trainers at the Lean Six Sigma Company. There is an exam at the end of the second day's training. After it is passed, the certificate is awarded. It is not surprising that many of the participants decide to follow the Six Sigma course after Lean. Where Lean eliminates waste, Six Sigma focuses on reducing variation and the ability to deliver a defect-free process.

### Prerequisites:

None

### Duration:

2 days

### Content:

- Lean philosophy, history and background
- Lean and the Theory of Constraints
- The Lean road map
- Practical simulation, part one
- Customer value add analysis
- Business value and non value add
- The eight types of waste
- Value-stream mapping
- One piece flow
- Cycle time, line balancing and talk time
- Practical simulation, part two

### Lean Tools

- Pull Systems and Little's law
- Kanban, safety stock and replenishment pull
- Standard operating procedures
- Practical simulation, part three
- Poka Yoke
- 5S and visual management
- Workplace organization
- SMED and set-up reduction
- Kaizen (Kaikaku)

## Lean Six Sigma Awareness Training (for Managers)

NOTE: PRIVATE, ON-SITE ONLY

### Description:

What should you know as a manager to successfully implement Lean Six Sigma? This half-day Lean Six Sigma training teaches you the basics of Lean and Six Sigma. Our goal is to help you understand what Lean Six Sigma means for you as a manager. The business aspects of Lean Six Sigma are discussed as well as the tools to facilitate and manage Lean Six Sigma projects.

What do you learn in Lean Six Sigma management awareness training?

At the end of the training, you'll know exactly what Lean and Six Sigma are. When people in your organization speak in Lean Six Sigma jargon, you'll know what they are talking about. But most importantly, you will understand the purpose of these two process improvement methods. Support from the organization is critical in Lean Six Sigma projects. Therefore, management should be involvement and support the projects. You will learn what this means for you during this training.

### Audience:

Anyone who comes into contact with Lean and Six Sigma—for example, managers who wants to know more about the methodology and managers whose input is expected in Lean Six Sigma projects. This awareness training guarantees the right knowledge. Any knowledge about Lean Six Sigma is not necessary. During training, we educate you on the background and philosophy of Lean Six Sigma, so you know where the origins of the methods. Furthermore, the training starts with the basics of Lean Six Sigma and the concepts are clearly explained and illustrated.

### Topics:

What does Six Sigma mean for your organization?

The added value of Lean Six Sigma is its focus on continuous process improvements based on customer requirements (internal or external). The power of Lean Six Sigma is the techniques that make it possible to improve processes based on facts and data in a clear project structure. Lean Six Sigma improvement projects contribute to reducing the operational costs with reductions of at least €100,000—but often, much more.

In summary, you'll learn about working with Lean Six Sigma to improve the quality and speed of processes, increase customer satisfaction and reduce operational costs.

What does it take for your organization to implement Lean Six Sigma?

An organization that considers working with Lean Six Sigma should train a number of specialists to Lean Six Sigma Black Belt and Green Belt. The Black Belts work on projects the most. Green Belts work on projects part time. Black Belts initiate projects based on the KPIs of an organization. For management, it is important that they approve the projects and ensure that the right projects are prioritized. A Lean Six Sigma implementation consists of roughly three phases. In the first phase, the Black Belts and Green Belts are trained. After that, the projects starts and is implemented and tested on the degree of success (phase 2). When the projects have demonstrated their value, then the broader roll out begins (phase 3).

### Prerequisites:

None

### Duration:

1 day

### Content:

Overview and Lean Six Sigma philosophy:

- Introduction Lean Six Sigma
- Differences between Lean Six Sigma philosophy and methodology
- Key concepts within Lean Six Sigma
- Lean way - 5 road map Womack - Value-added and non-value added activities, value stream mapping and flow
- Six Sigma DMAIC project structure
- Process simulation
- Responsibilities of the manager at Lean Six Sigma roll outs

In short, you will learn what Lean Six Sigma means so you can speak the same language as the specialists, and you will know what is expected from you as a manager.

**ARIS**  
COURSES

## ARIS

### The Digital Enterprise starts here

Leading companies use digital processes to differentiate their businesses. They start with ARIS to map and model processes that keep them highly responsive in ever-changing markets. Software AG's ARIS offers a truly collaborative process improvement environment. You can bring together stakeholders from anywhere to strategize and blueprint processes. Then, you can automate those processes using webMethods to transform your business into the Digital Enterprise.

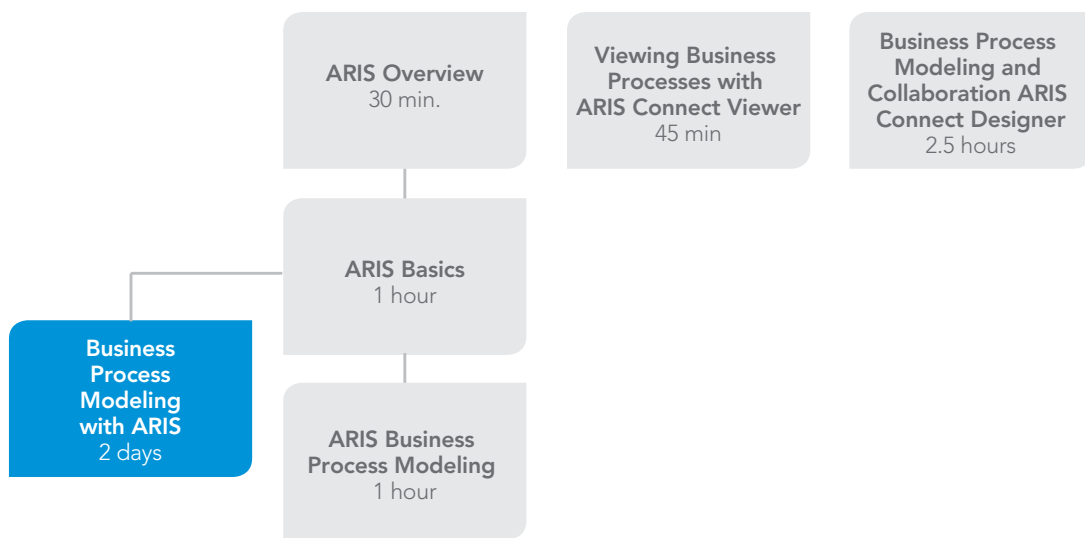
With ARIS, you can break down silos. Make your processes transparent, controlled, manageable and agile. Business and IT get the tools they need to collaborate for true end-to-end business and IT improvement, guided by governance. The results are tangible: lower costs, better quality, higher throughput and faster reaction times along with proactive error correction.

Leverage the four forces – mobile, social, cloud and big data – using ARIS to create new business opportunities:

- Improve processes without boundaries using social collaboration
- Consume, create, analyze and improve processes on mobile devices
- Scale up with demand via the cloud
- Make better decisions based on smarter analysis

Learn more about all the training options available for ARIS.

# Learning Path ARIS eLearning



### Legend:

- = eLearning
- = Classroom training

Go back!

## ARIS eLearning

### ARIS Overview

**Description:**

The purpose of this eLearning course is to introduce the student to BPM principles, concepts of business modeling, business modeling with ARIS and application of business processes. Business Process Management (BPM) not only improves profitability, it also assists in creating a competitive advantage for companies, helping to drive innovation and achieve a remarkable degree of enterprise agility. This module provides managers with a high-level overview and best practices of BPM and why its application in today's corporate environment is critical in achieving future success.

**Prerequisites:**

None

**Duration:**

30 minutes

**Content:**

- Definition and value of BPM
- Need for business modeling
- Explanation of the ARIS framework
- Traditional process mapping vs. process modeling
- Business process defined
- Benefits of ARIS

### ARIS Basics

**Description:**

The purpose of this eLearning course is to introduce the student to fundamentals of ARIS as a design platform. This is a common module for ARIS Designer, Architect, IT Architect and SOA Architect. Upon completion, you will understand the basics of the ARIS design platform and establish a baseline to start using ARIS in your business process, Enterprise Architecture (EA) or Service-Oriented Architecture (SOA) projects.

**Audience:**

Business analysts, business architects, enterprise architects, SOA analysts, SOA architects

**Prerequisites:**

ARIS Overview eLearning

**Duration:**

1 hour

**Content:**

- ARIS framework
- ARIS modules
- ARIS design platform basics
- Database and folder structure
- User and user groups
- Models and objects
- Baseline ARIS for modeling
- Introduction to printing, search and query

## Viewing Business Processes with ARIS Connect Viewer

### Description:

This course provides the student with an overview of ARIS Connect Viewer and its features for viewing the business process repository and collaborating on business processes throughout the business process lifecycle. At the end of the session, you will be able to effectively and efficiently use ARIS Connect Viewer for collaborating on process design and improvement across your social process network.

At the end of this course, you will be familiar with ARIS Connect Viewer and its functionalities for viewing and collaboration:

- Using portal features such as navigation, model views like diagrams, tables, RACI charts etc.
- Process and group based collaboration utilizing features such as posts, feeds, follows, etc.

### Audience:

Any process stakeholder such as business analyst, process specialist, process architect, process owner, BPM manager, project manager, etc.

### Prerequisites:

None

### Duration:

45 minutes

### Content:

This course will cover:

- Introduction to ARIS Connect Viewer: Purpose and Access
- ARIS Connect Portal
  - Viewing models in graphical, textual and table format
  - Sharing models and participate in process governance
  - Evaluating process repository: running pre-defined reports, search & find
- ARIS Connect Collaboration:
  - Using feeds – participate in process discussions across the social process network
  - Using groups – join groups to advance processes selected peer groups
  - How to collaborate – follow processes and stay up-to-date on process changes

## Business Process Modeling and Collaboration ARIS Connect Designer

### Description:

This course provides the student with an overview of Business Process Management, ARIS Methodology, and the most commonly used models. The student will explore ARIS Connect and its features for viewing, modeling and collaborating. At the end of the session, you will be able to effectively and efficiently use ARIS Connect for collaborating on process design and improvement across your social process network.

At the end of this course, you will be familiar with:

- The basics of Business Process Management and Modeling
- The ARIS Methodology, ARIS House and relevant model types
- ARIS Connect and its functionalities for:
  - Viewing using portal features such as navigation, model views like diagrams, tables, etc.
  - Modeling to quickly update, improve, redesign models
  - Process and group based collaboration utilizing features such as posts, feeds, follows, etc.

### Audience:

Any process stakeholder such as: business analyst, process specialist, process architect, process owner, BPM manager, project manager, etc.

### Prerequisites:

None

### Duration:

2,5 hours

### Content:

- Business Process Management and ARIS
- Viewing models in graphical, textual and table format using ARIS Connect portal features
- ARIS Connect modeling
- ARIS Methodology representing organization, function, data, product/service, and system view
- Process and group based collaboration utilizing ARIS Connect collaboration features such as posts, feeds, follows, etc.

## ARIS Business Process Modeling

**Description:**

This course provides the student with the best, most commonly used business process modeling methods with ARIS. At the end of the session, you will be able to recognize business process modeling constructs and concepts of business process architecture and apply ARIS for business process modeling.

**Audience:**

Business analysts, business architects, process owners, project managers

**Prerequisites:**

The following courses are required as prerequisites:

- ARIS Overview eLearning
- ARIS Basics eLearning

**Duration:**

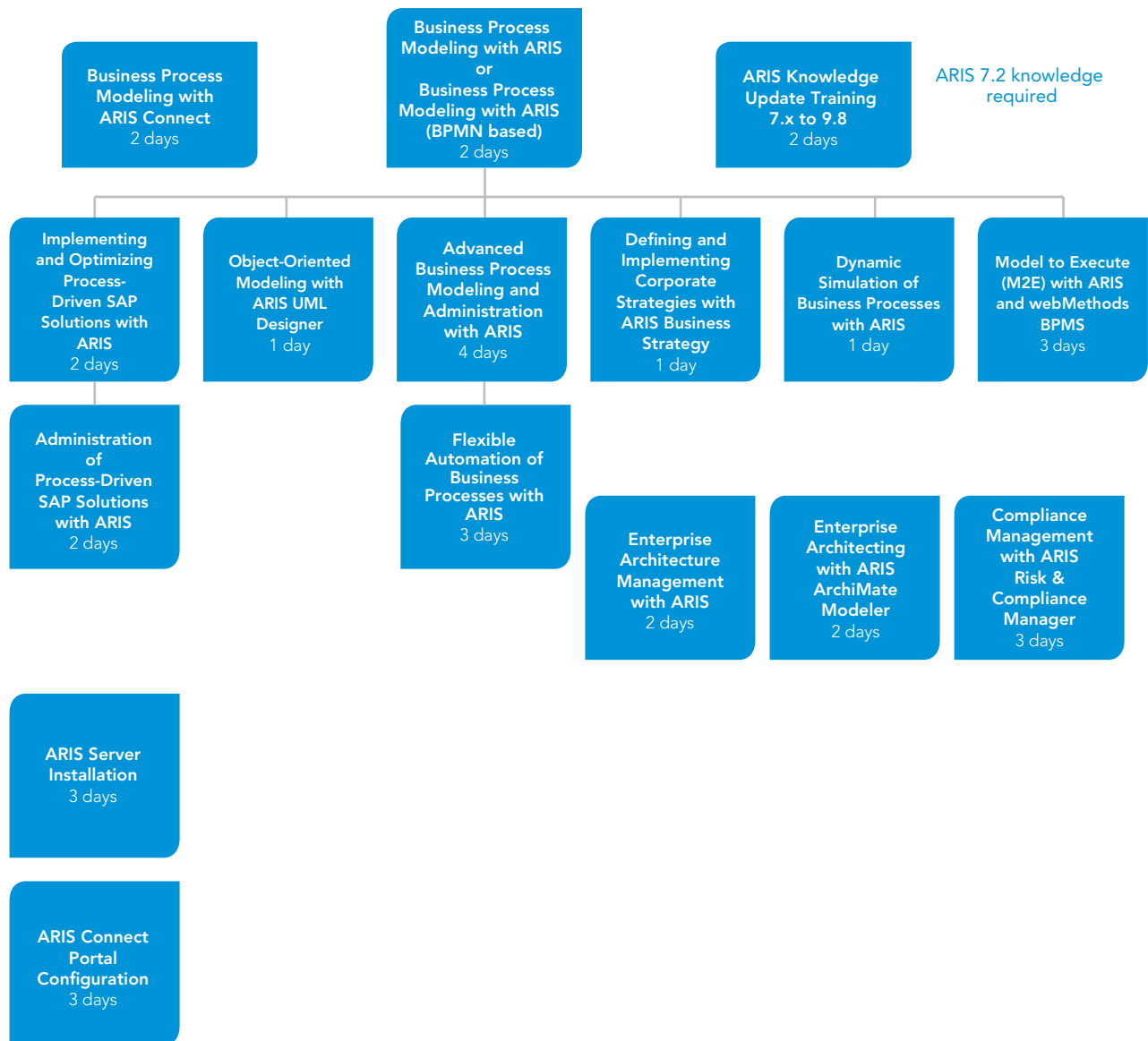
1 hour

**Content:**

- Introduction to ARIS
- Business architecture
- Model business dimensions: value chains, process flows, function allocation diagrams, organizational chart and locality model
- Introduction to printing, search and query



# Learning Path ARIS



## ARIS Courses

### ARIS Knowledge Update Training 7.x to 9.8

**Description:**

ARIS 9 combines 20 years of Business Process Analysis (BPA) experience with the latest technology trends. ARIS 9 also opens up process improvement to anyone. It's now easier to use, smarter to run and more powerful to improve processes. This course provides you with all information to use and administer ARIS 9 successfully based on your ARIS 7 skills. You'll learn about all the new and enhanced features of ARIS 9 and get a detailed understanding of ARIS Connect, which unlocks the power of social collaboration for business and IT improvement.

**Audience:**

Users working with ARIS to create business process models; users working with ARIS Architect to do quality assurance and advanced data handling tasks (senior modelers or power users); users working with ARIS Architect to set up ARIS database(s) and doing customization of ARIS configuration (filters, semantic checks, reports, etc.), ARIS administrators.

**Prerequisites:**

Good knowledge of ARIS 7.x

**Duration:**

2 days

**Content:**

- ARIS 9 architecture: client and server changes
- New user interface
- Modeling changes- New symbols- Enterprise BPMN™
- Evaluations changes- Queries and ad hoc analysis- Spreadsheets- Reports and macros- Semantic checks
- Administration changes- User management console- Flexible meta model- User and license administration
- Import/export
- ARIS document storage
- ARIS Connect portal
- ARIS Connect administration
- Process-centric collaboration in ARIS Connect

### Business Process Modeling with ARIS Connect

**Description:**

Business process modeling is about creating and maintaining process documentation and doing evaluations. This course provides you with the necessary knowledge needed to create process documentation in ARIS Connect. In workshops you will learn to create various ARIS models in accordance to the ARIS modeling rules. Using this knowledge will allow to a clean and good-looking business process landscape.

**Audience:**

Users working with ARIS Connect to create business process models

**Topics:**

At the end of this course, you will be able to:

- Use ARIS Connect functionality for your modeling work
- Describe complex business information in a logical and understandable way using the ARIS methodology
- Describe all relevant additional information used in a process model

**Prerequisites:**

Basic computer handling skills

**Duration:**

2 days

**Content:**

- BPM and ARIS
- ARIS Connect introduction
- Different model types: organizational chart, VACD, product service tree, EPC, BPMN, technical terms and IE data model
- Collaboration
- Creating process models in accordance to ARIS modeling rules
- Optimizing readability of model graphics

## Business Process Modeling with ARIS

### Description:

Business process modeling is about creating and maintaining process documentation and doing evaluations (queries, reports, etc.). This course provides you with the necessary knowledge needed to create process documentation in ARIS. In workshops you will learn to create various ARIS models in accordance to the ARIS modeling rules. Using this knowledge will allow to a clean and good-looking business process landscape.

### Audience:

Users working with ARIS Designer/Architect to create business process models

### Topics:

At the end of this course, you will be able to:

- Use ARIS functionality for your modeling work
- Describe complex business information in a logical and understandable way using the ARIS methodology
- Structure and describe all relevant additional information used in a process model

### Prerequisites:

Basic computer handling skills

Extensions:

The following courses are proposed for continuing education:

- Advanced Business Process Modeling and Administration with ARIS

### Duration:

2 days

### Content:

- BPM and ARIS overview
- Introduction to ARIS Designer/Architect
- Model types: organizational chart, VACD, product service tree, EPC, BPMN, technical terms and IE data model, etc.
- Creating process models in accordance to ARIS modeling rules
- Optimizing readability of model graphics
- Testing and evaluating models

## Business Process Modeling with ARIS (BPMN-based)

### Description:

Business process modeling is about creating and maintaining process documentation and doing evaluations (queries, reports, etc.). This course provides you with the necessary knowledge needed to create process documentation in ARIS. In workshops you will learn to create various ARIS models in accordance to the ARIS modeling rules. Using this knowledge will allow to a clean and good-looking business process landscape.

### Audience:

Users working with ARIS Designer/Architect to create business process models

### Topics:

At the end of this course, you will be able to:

- Use ARIS functionality for your modeling work
- Describe complex business information in a logical and understandable way using the ARIS methodology
- Structure and describe all relevant additional information used in a process model

### Prerequisites:

Basic computer handling skills

Extensions:

The following courses are proposed for continuing education:

- Advanced Business Process Modeling and Administration with ARIS

### Duration:

2 days

### Content:

- BPM and ARIS overview
- Introduction to ARIS Designer/Architect
- Model types: organizational chart, VACD, product service tree, EPC, BPMN, technical terms and IE data model, etc.
- Creating process models in accordance to ARIS modeling rules
- Optimizing readability of model graphics
- Testing and evaluating models

## Advanced Business Process Modeling and Administration with ARIS

### Description:

Learn anything about BPA with ARIS that goes beyond model creation. This course enables participants to fit into two closely related roles: The knowledge of advanced business process modeling techniques qualifies people to work as process architects, while knowledge of administration features qualifies attendees to be successful as ARIS administrators. These roles have fuzzy boundaries. Several topics are touched by both and often it is the same people occupying these roles. Even in organizations with different persons occupying the two roles, collaboration and efficiency increase if both have knowledge of each other's tasks and workflows. Advanced modeling and administration procedures are perfectly supported by ARIS Architect and ARIS Server's administration portal. Using the expert-grade knowledge provided during this course, you will get a clean and valuable business process landscape. But, most important, you get there faster. Please refer to the audience section for a list of major topics covered by either role.

### Audience:

**Process Architects:** Persons responsible for establishing and maintaining process architecture, quality assurance, visualizations of hidden information and data exchange. **ARIS Administrators:** Persons responsible for administration or creation of licenses, access rights, functional permissions, conventions (filters, templates) and online publishing.

### Topics:

At the end of this course, you will be able to:

- Fulfill the role of process architect as described
- Fulfill the role of ARIS administrator as described

### Prerequisites:

The following courses are required as prerequisites:

- Business Process Modeling with ARIS

### Extensions:

The following courses are proposed for continuing education:

- Flexible Automation of BPM Processes with ARIS Process Governance

### Duration:

4 days

### Content:

- Refresher of BPM and ARIS
- Advanced modeling techniques
- Import and export of models
- Versioning
- Release cycle management
- Mini workflows
- Setting up the ARIS project database
- Keeping the database clean
- Running reports and macros
- Creating reports and macros
- Spreadsheets
- Queries and ad-hoc analysis
- Semantic checks
- Modeling project and conventions
- ARIS configuration
- ARIS Connect administration
- User management
- Statistics

## Defining and Implementing Corporate Strategies with ARIS Business Strategy

**Description:**

In order to survive in an increasingly dynamic market, enterprises must link business processes to their evolving corporate strategies. Design, implementation and controlling a business strategy are challenging tasks for every organization. You need efficient management processes to apply your company's strategies and strategic objectives in your daily business. ARIS Business Strategy is a component of ARIS platform and supports you by handling those tasks. It provides decision support tools, such as balanced scorecards, SWOT analysis and strategy allocation plans. To make strategy design and implementation successful, you need to keep your top-level management informed on a regular basis. ARIS Business Strategy integrates MashZone so managers can visualize corporate strategy effectiveness and relevant metrics using dashboards. You can control and analyze your strategic goals and KPIs designed with ARIS Business Strategy immediately by using MashZone. This course will help you to apply the visibility of the ARIS repository to the strategic view of a company. The top-down approach, from strategy to processes, will enable you to support management decision-making based on the content and relationships generated in ARIS. You will learn all necessary modeling requirements for setting up a business strategy system in your company using ARIS Business Strategy.

**Audience:**

Users working with ARIS Business Strategy to define and analyze the company's strategy

**Topics:**

At the end of this course, you will be able to:

- Define business strategies and business models using ARIS Business Strategy
- Understand the relationships between business strategies, tactics, objectives and KPIs
- Know how to set up a Balanced Scorecard to support strategy implementation
- Know how to use MashZone to keep management up-to-date

**Prerequisites:**

- Basic computer handling skills
- Basic ARIS modeling skills

**Duration:**

1 day

**Content:**

- Basics for business strategy management
- Procedure to develop business strategies and business models with ARIS
- Reports for business strategy evaluation
- MashZone

## Enterprise Architecture Management with ARIS

### Description:

Learn how to successfully manage IT complexity and reduce IT operations costs. Corporate business processes are underpinned by complex IT environments. Over time many of these environments become increasingly diverse and difficult to manage. An Enterprise Architecture (EA) describes this complex system of corporate IT resources and establishes standards for creating and updating it. This course covers detailed method conventions for designing and managing an EA that you can instantly apply to your own work environment. You will be able to successfully build content in the ARIS repository and establish relationships with content from other architecture views. You will know how to address important issues, such as, detecting system redundancy, identifying IT requirements, building up and planning IT landscapes, creating IT system life-cycle reports, and analyzing the impact of business process changes on the relevant IT systems.

### Audience:

Persons in charge of design and management of enterprise IT architectures

### Topics:

At the end of this course, you will be able to:

- Build and manage an EA
- Establish relationships with content from other architecture views
- Address important issues respecting your IT landscape

### Prerequisites:

- Experience in IT architecture management
- Basic skills in business process modeling with ARIS is helpful

### Duration:

2 days

### Content:

- Introduction to Enterprise Architecture Management (EAM)
- EAM with ARIS
- Designing an EA
- Analyzing an EA
- Planning and managing an EA
- Sharing an EA

## Enterprise Architecture Management with ARIS for ArchiMate

### Description:

Organizations and their IT systems landscape need to be adapted faster and more often. Supporting this process of change in a consistent way requires an enterprise-wide architecture management. ARIS for ArchiMate is a Web-based, multi-user solution for EA that can support the collaborative work of architecture teams of various sizes, from a single architect to globally distributed teams. This course provides you with the necessary knowledge needed to create architecture descriptions in ARIS, based on the ArchiMate notation. In exercises you will learn to use and extent content from ArchiMate models in other notations. This knowledge will allow to create and evaluate clear architecture descriptions.

### Audience:

Users working with ARIS Architect to create architecture descriptions

### Topics:

At the end of this course, you will be able to:

- Maintain ArchiMate models in ARIS
- Use ArchiMate together with other methods
- Manage the ARIS repository
- Support projects with ARIS
- Evaluate content in ARIS

### Prerequisites:

- Expertise as architect
- Basic knowledge of ArchiMate
- Basic skills in business process modeling with ARIS is helpful

### Duration:

2 days

### Content:

- About EA
- Introduction to ARIS
- ArchiMate 2.0 primer
- Modeling in ARIS for ArchiMate
- Analyses and reports

## Object-Oriented Modeling with ARIS UML Designer

**Description:**

Our focus is on taking you from process models to executable applications. All business software serves the same purpose: to provide the best possible support for corporate processes. Close cooperation between user departments and IT staff is, therefore, key to the success of software projects, whether they involve adapting packaged software or developing custom solutions. To facilitate this kind of cooperation, ARIS UML Designer combines conventional business process modeling with software development. The result is a seamless, integrated approach to developing business applications, covering every stage from process analysis to system design. ARIS UML Designer is the first tool to speak the language of business processes and that of software development. Because it supports the entire software development process, there is no need for extra steps outside this process. With ARIS UML Designer, all process modelers and UML modelers work with an integrated software product. Users access process model data and UML content via a Web browser, thereby enabling processing and change management within a multi-user environment. Students will acquire the basic skills essential to creating models with ARIS UML Designer.

**Audience:**

Systems analysts, software developers and IT staff who use ARIS for requirements analysis and design purposes

**Prerequisites:**

Basic knowledge of object-oriented principles and UML

The following courses are required as prerequisites:

- Business Process Modeling with ARIS

**Duration:**

1 day

**Content:**

- ARIS method overview
- Process and object-oriented modeling concepts
- Modeling with ARIS (review of basic knowledge): processes, organizational structure; occurrence versus definition level
- UML (review of basic knowledge) and UML integration with ARIS
- UML modeling with ARIS
- The UML package tree and global settings
- The stereotype concept
- Architectures and project procedures
- Data exchange and reporting

# Implementing and Optimizing Process-Driven Management for SAP Solutions with ARIS

NOTE: PRIVATE, ON-SITE ONLY

## Description:

ARIS for SAP Solutions and SAP® Solution Manager are perfect tools to close the gap between business requirements, business process design and the implementation of an SAP solution. The interaction of ARIS for SAP Solutions and SAP Solution Manager supports companies throughout the entire SAP life cycle, from strategy and requirements analysis, through blueprint to configuration, testing, training and roll out. Business processes are documented using ARIS for SAP Solutions and analyzed within the context of the SAP system environment. After the analysis of the relevant process areas the detailed processes are synchronized with SAP Solution Manager. Thus the correct mapping of the user requirements in the SAP environment can be ensured and any non-standard features are identified. SAP Solution Manager also contains reference content which can be synchronized to ARIS and re-used for modeling processes. This enables cost savings and fast implementation of your SAP solution.

## Audience:

Business architects, business users

## Topics:

At the end of this course, you will be able to:

- Implement and optimize your SAP solution. Gain a clear view of the relationship between your corporate processes and the configuration of your systems. Thanks to the integrated use of ARIS for SAP Solutions and SAP Solution Manager, you can ensure that the implementation your SAP solution will be documented according to consistent formal standards, from technical design and configuration through to testing
- Import process content provided by SAP Solution Manager into ARIS for SAP Solutions where it is transformed into complete end-to-end processes that reflect the business management view. Content that relates purely to configuration can be enhanced to include business information, such as manual operations and their description, executing roles and data and information used

## Prerequisites:

- Basic SAP skills are recommended
- Basic knowledge of SAP Solution Manager is desirable

## The following courses are required as Prerequisites:

- Business Process Modeling with ARIS (or equivalent knowledge)

## Duration:

2 days

## Content:

- Overview of SAP Solution Manager
- Structure of SAP reference models
- Introduction to functionality of ARIS for SAP Solutions
- Initial settings in ARIS for SAP Solutions
- ARIS attributes in the SAP environment
- Overview of Prime methodology for implementation of SAP systems
- Modeling of technical requirements
- Procedure: Data transfer ARIS <-> SAP Solution Manager



## Administration of Process-Driven SAP Solutions with ARIS

NOTE: PRIVATE, ON-SITE ONLY

### Description:

To implement the business requirements derived from their corporate strategy, companies need a fast and efficient way of mapping business processes and new business concepts to the SAP solution. ARIS for SAP Solutions enables enterprises to define business-driven requirements from a process perspective. These requirements can provide a common language between business and IT within the project. The bidirectional interface to SAP Solution Manager enables the models to be constructed on the basis of SAP reference content for a process-driven SAP Solution. ARIS for SAP Solutions has a great number of functionalities which can be used to synchronize relevant elements from SAP Solution Manager to ARIS and back again. You profit from cost savings and fast implementation of your SAP solution. In addition, global companies must coordinate their roll outs and synchronize these in the solution landscape. You roll out your defined global processes in ARIS and synchronize them to a global template project in SAP Solution Manager with all process documentations, BC sets and predefined test cases. Therefore, ARIS enables the implementation of global business processes and ensures flexibility and local requirements at the same time.

### Audience:

Business architects, business users

### Topics:

At the end of this course, you will be able to:

- Implement and optimize your SAP solution in a consistent, structured and process-oriented manner
- Detect and correct errors to enable a successful synchronization between ARIS and SAP Solution Manager
- Use the ARIS for SAP Solutions functionality to synchronize elements, e.g., keywords, end user roles and SAP shortcuts
- Publish content and define end-to-end scenarios as well as to handle change request management and the roll out of global processes
- Perform all tasks regarding the interaction of ARIS for SAP Solutions and SAP Solution Manager

### Prerequisites:

- Basic knowledge of SAP Solution Manager is desirable
- Basic SAP skills are recommended

The following courses are required as prerequisites:

- Business Process Modeling with ARIS (or equivalent knowledge)
- Advanced Business Process Modeling and Administration with ARIS
- Implementing and Optimizing Process-Driven SAP Solutions with ARIS

### Duration:

2 days

### Content:

- Interaction between ARIS for SAP Solutions and SAP Solution Manager
- Download and use of SAP reference content
- Modeling rules and conventions
- Transformation of process model into a configuration model
- Synchronization options and error handling
- Problems and solution around synchronization
- Publishing and transfer of ARIS Business Publisher content into SAP Solution Manager
- ARIS online guide
- Change request management
- Global template roll out
- Tips and tricks from project experiences

## Compliance Management with ARIS Risk & Compliance Manager

### Description:

The Workflow-Based Environment of the ARIS Solution for GRC

Organizations need to ensure - and be able to demonstrate - that their workflows meet a wide range of legal requirements and standards. The ARIS Solution for Governance, Risk and Compliance Management from Software AG offers customers a software tool for integrating current and future compliance requirements into their business processes. ARIS Risk & Compliance Manager is an intuitive software product that helps users to conduct tests by providing a corresponding workflow and all relevant information. It enables organizations to carry out the necessary compliance activity with maximum efficiency and can easily be extended to accommodate new legislation or standards. ARIS Risk & Compliance Manager also helps you to manage your operational risks. Detected high risks can be minimized by establishing controls and conducting tests. The integrated easy to use evaluation part generates automatically all necessary reports to show the actual status of the risk management. The risk assessments are also supported by a workflow which automatically sends emails to the responsible persons. High level controls from management can be covered with the easy to use survey module which is completely flexible for any kind of questionnaires. Cross-referencing policies with regulations, risks and processes, for example, helps you establish a better culture of compliance and reduce risk. Real-time response enables you to realize both detective and preventive GRC management with Software AG's complex event processing (CEP) engine. The Audit management module with fully integrated resources Management completes the portfolio of ARIS GRC.

### Audience:

Operational staff

### Topics:

At the end of this course, you will be able to:

- Use the ARIS Risk & Compliance Manager in the context of the operational risk management and initiate measurements to minimize risks
- Document internal controls with process orientation and perform tests of the controls/design
- Evaluate your processes and internal controls using standard reports and analyses
- Manage audit paperwork and schedule audit-related tasks and get support for time management and reporting.
- Administrate the ARIS Risk & Compliance Manager properly and will be able to set up the system using the ARIS Architect
- Use the issue or deficiency module for improvements and the survey and policy management for better compliance within your company

### Prerequisites:

Basic ARIS knowledge is required

### Duration:

3 days

### Content:

- Introduction to ARIS GRC
- Modeling conventions in general and for GRC specifics
- Modeling of compliance relevant data in ARIS Designer / Architect
- Using semantic check with compliance relevant data
- Data export from ARIS Architect
- Data import into ARIS Risk & Compliance Manager
- Administration of ARIS Risk & Compliance Manager
- Compliance testing and valuation
- Operational risk management including losses and incidents
- Issue management/deficiency management
- Audit management
- Survey management
- Policy management
- Sign-off management
- Continuous monitoring
- Regulatory change management

Go back!

## Dynamic Simulation of Business Processes with ARIS

### Description:

How do you establish efficient processes? How do you know what resources are required to execute a process or where bottlenecks will arise during process execution? How do you identify which process variants are better than others before they are actually implemented? How many resources do you need for new processes? These questions can be answered by analyzing the dynamic behavior of processes. This is where ARIS' process simulation capabilities come into play. By enabling evaluation of both executability and efficiency, the software supports decision-making in reengineering, benchmarking, and resource planning. ARIS allows both existing and new processes to be analyzed and improved. The application collects a variety of information during a simulation run that enables the behavior of processes to be assessed. The results are presented in the form of color animation, statistics and charts. Data provided includes throughput and wait times, total processing time, costs, weaknesses, as well as resource requirements and utilization. Simulation of business processes provides information about the executability of processes, process weaknesses, and resource bottlenecks. In the run-up to cost intensive process changes, the simulated process performance indicators can be used to evaluate various alternatives and carry out true-to-life benchmarking. The course covers possible application scenarios and the procedure for simulating your business processes.

### Audience:

Business architects, business users

### Topics:

At the end of this course, you will be able to:

- Configure process models for simulation
- Conduct simulation runs and experiments
- Interpret the results and identify optimization potential
- Increase the understanding of process correlations
- Perform capacity planning
- Analyze as well as optimize your business processes for better performance

### Prerequisites:

The following courses are required as prerequisites:

- Business Process Modeling with ARIS or equivalent knowledge

### Duration:

1 day

### Content:

- Introduction to ARIS Simulator
- The simulation process:
  - Prepare process models
  - Prepare simulation
  - Execute simulation
  - Analyze simulation results
  - Identify optimization potential
- Special topics (e.g., BPMN simulation, ERM attributes, risk simulation)
- Simulation summary and outlook

## Flexible Automation of Business Processes with ARIS

### Description:

Are you managing your business processes to achieve better performance, higher ROI or boost efficiency? Did you consider the processes of process management, already? With the knowledge gained during this course you will be able to boost your BPA / BPM processes without losing the required flexibility in your process design. Business (= "non-IT") users are enabled to turn their process documentation in ARIS into executable workflows; without programming. This includes modeling flexible dialogs, data and process flows, as well as handling status controls and escalations. Applying this knowledge will enable you to speed-up your process management lifecycle while at the same time the error rate is reduced. Attending this course you'll get there faster.

### Audience:

Persons in charge of design and management of BPM activities and members of the BPM team (Process Excellence Center, business/process consultants, etc.)

### Topics:

At the end of this course, you will be able to:

- Flexibly design processes and dialogs
- Realize automations with the help of pre-defined ARIS Web services
- Make your process models become executable workflow source code

### Prerequisites:

Experience in organizational or similar departments (optional)

The following courses are required as prerequisites:

- Business Process Modeling with ARIS (or equivalent knowledge)
- Advanced Business Process Modeling and Administration with ARIS (optional)

### Duration:

3 days

### Content:

- The process of process management
- Create and maintain processes for automated execution
- Design process flows, including automated activities and notifications
- Model dialogs in a flexible way
- Use pre-defined ARIS Web services for automatic execution
- Integrate relevant organizational structures and roles
- Map data flows
- Ensure quality with pre-defined semantic checks
- Transform theoretical documentation into real implementations
- Automatic generation of executable source code
- Execution of designed processes
- Status control and escalation

## ARIS Server Installation (Suitable for ARIS 9.7)

### Description:

After completion of the workshop, the participants will be able to install and setup an ARIS 9.7 server. This includes installations for single and multi-node servers. The information gained during this course should enable participants to understand also older installations of ARIS 9. The course does not cover administrative tasks like user management or backup handling.

### Objectives:

At the end of this course, you will be able to:

- Install and set-up an ARIS 9 Server (single and multi-node installation)

Software versions covered:

ARIS 9.7

### Audience:

Server administrators, ARIS administrators

### Prerequisites:

- Advanced knowledge of Windows operating system (command line, firewall, file handling)
- Administrative knowledge of ARIS (user account handling, modeling environment (optional))

### Content:

- Architectural basics and details
- Installation basics and details
- ARIS Cloud Controller (admin user interface)
- Set-up scripts
- Security
- High availability / scaling
- Connectivity
- Fine-tuning of manual installation
- Troubleshooting
- Updating ARIS Server
- ARIS Risk & Compliance Manager installation
- ARIS Publisher installation
- Installation on Linux®

### Duration:

3 days

## ARIS Connect Portal Configuration

### Description:

This training enables people with technical skills to adapt the look and feel of an ARIS Connect web portal. The portal of an ARIS Connect server could be customized by adapting the XML file-based configuration. This is a big advantage over programming-based approaches of other products. The course starts with lean examples and basic information about concepts, upgrade behaviour, tooling and best practices. Throughout the training the complexity of the delivered info and exercises will increase. In the end several hours are reserved for additional hands-on experience. Thus each participant could deepen his/her newly gained knowledge; learning based on common use cases.

### Objectives:

At the end of this course, you will be able to:

- adapt the look and feel of your ARIS Connect portal, by
- creating / adapting an XML-based configuration set of ARIS Connect
- modifying the active configuration set via Self-Service Configuration

### Audience:

- ARIS Administrators
- Intranet / Web Developers

### Prerequisites:

- Advanced knowledge of web technology: XML, HTML, CSS. (mandatory)
- Advanced knowledge of ARIS method: Interdependencies of model types, object types, etc. (mandatory)
- Advanced file handling skills of Windows operating system: Handling many files in several folder trees. (recommended)
- Knowledge of ARIS architecture. (optional)

### Content:

- Architectural Overview
- Tools and Best-Practices (demo)
- Views
- Layouts
- Components
- The "item" Component
- Wires and Signals
- Transformations
- Localizations
- Hierarchies
- Search Configuration
- Cascading Style Sheets (CSS)
- Self-Service Configuration

### Duration:

3 days

## Model-to-Execute (M2E) with ARIS and webMethods BPMS

### Description:

This workshop covers the Model-to-Execute (M2E) procedure from business process analysis (business blueprint) to solution design up to process implementation and automation based on the integrated ARIS and webMethods products. Participants learn through hands-on exercises how to enhance and transform a business process model (EPC) to a solution design (BPMN) in ARIS and to share it as a technical business process model with webMethods BPMS for implementation and execution. Using round-tripping, the modified and enhanced process model will be exchanged and synchronized between ARIS and webMethods. Moreover the enhanced concept of a comprehensive Solution Design (process, KPIs, UIs, data) sharing will be introduced and performed in practical exercises. This course is an intensive workshop; the course is based on an example business case that illustrates the features of the integrated ARIS and webMethods BPMS products. Exercises are designed to prepare students for self-sufficiency.

### Objectives:

At the end of this course, you will be able to:

- Enhance a business blueprint (EPC) in ARIS to gather business requirements for process automation
- Transform processes from EPC into BPMN and align them in ARIS
- Share the BPMN model with webMethods process developers (IT) and how to start implementation work in webMethods Designer
- How the business process model (EPC in ARIS) and technical process model (in webMethods) can be kept in-synch (aligned) during implementation featuring the merge view
- Perform a solution design sharing by exporting and importing a solution consisting of processes, KPIs, UIs and data

### Audience:

Business analysts, BPM architects, process engineers, software developers (process/integration)

### Prerequisites:

- ARIS knowledge according to the course Business Process Modeling with ARIS Business Designer
- Being familiar with general BPM concepts, e.g., as provided in Software AG's FREE book "BPM Basics for Dummies"
- Familiarity with the Eclipse™ IDE

### Content:

- M2E overview
- Process round-tripping - overview, installation & configuration
- Business blueprint > solution design transformation and alignment
- From ARIS BPMN solution design to webMethods BPMN implementation
- Process update, delegation, review and finishing
- Solution design sharing (process, UI, data, KPIs export - import)
- Documentation export-import and Process import into ARIS
- Updating ARIS Server
- ARIS Risk & Compliance Manager installation
- ARIS Publisher installation
- Installation on Linux®

### Methods:

- Lecture, presentation
- Hands-on workshop



### Duration:

3 days

# Learning Path ARIS Certification



### Legend:

-  = Certification
-  = Classroom training

Go back!

## ARIS – Certification

### ARIS Certified Business Process Administrator

#### Audience:

System administrators

#### Prerequisites:

The test assumes a general understanding of business process management / business process analysis. The questions cover the following ARIS Platform products: ARIS Designer/Architect and ARIS Design/Connect Server. This test is designed to check for skills and understanding of customization and management of an ARIS modeling environment.

#### Test Structure:

The certification test is practice-oriented and simulates situations typical for business process administration. It tests your ARIS knowledge in all areas that are important for usage, customization and management of your ARIS modeling environment.

The ARIS Business Process Administrator certification test is a Web-based multiple-choice test. This proctored examination is designed for the experienced ARIS user. It consists of about 50 multiple choice questions, which cover a range of ARIS methodology, client and server topics.

#### Preparation Guidelines:

Successful completion of the ARIS Business Process Administrator certification test requires a solid knowledge in using ARIS products as can be acquired through Software AG training courses plus practical experience.

While the suggested resources can assist you in preparing for the test, it is imperative that you have hands-on experience in modeling processes as well as customizing and managing the modeling.

No course completion is required to sit for this exam, but prospective examinees are strongly recommended to have completed the courses:

- Business Process Modeling with ARIS
- Advanced Business Process Modeling and Administration with ARIS

#### Duration:

3 hours

#### Test Topics:

Individuals who become ARIS Certified Business Process Administrators will have demonstrated knowledge and skills associated with the following subject areas:

- **ARIS BPA project**  
Project topics
- **Modeling**  
Modeling basics (how to use ARIS), modeling conventions, entry and library models, variants, generating models
- **Versioning**  
Versioning topics
- **Quality assurance**  
Backup and restore, reorganization, consolidation, semantic checks
- **Import and export**  
Import and export topics
- **Evaluations**  
Evaluation basics and commons, queries, reports and macros
- **Database Setup**  
Technical set-up of the database, group structure, level concept and model architecture, user management, access privileges management, LDAP integration
- **Configuration**  
Convention manual, method configuration, creating and managing filters, font formats and languages, creating and managing templates



## ARIS Certified Process Governance Expert

### Audience:

Experienced APG user

### Prerequisites:

The test assumes a general understanding of Process Governance as well as the underlying topic of Business Process Analysis / Business Process Management. The questions cover the following products:

- ARIS Process Governance including its features occurring in
- ARIS Designer/Architect
- ARIS Connect
- ARIS Process Administration
- ARIS Process Board
- ARIS Document Storage
- ARIS User Management Console

This test is designed to check for skills and understanding of usage, customization and management of an APG environment.

### Test Structure:

The certification test is practice-oriented and simulates situations typical for business process governance. It tests your ARIS Process Governance (APG) knowledge in all areas that are important for usage, customization and management of your APG environment.

The ARIS Certified Process Governance Expert certification is done web-based as multiple-choice test. This proctored examination is designed for the experienced APG user. It consists of about 50 multiple choice questions, which cover a range of APG topics. To pass the test and receive certification, you must score a 66% on the test within 180 minutes.

### Preparation Guidelines :

Successful completion of the ARIS Certified Process Governance Expert test requires a solid knowledge in using APG as can be acquired through Software AG training courses plus practical experience.

While the suggested resources can assist you in preparing for the test, it is imperative that you have hands-on experience in modeling governance processes as well as customizing and managing the process governance environment.

For topics covered in the test, please review the APG documentation delivered with its installation files.

No course completion is required to sit for this exam, but prospective examinees are strongly recommended to have completed the courses:

- Business Process Modeling with ARIS
- Advanced Business Process Modeling and Administration with ARIS
- Flexible Automation of Governance Processes with ARIS

### Duration:

3 hour

### Test Topics:

Individuals who successfully complete the ARIS Certified Process Governance Expert test will have demonstrated knowledge and skills associated with the following subject areas:

- **General knowledge of ARIS Process Governance**
  - Purposes
  - Main concepts
- **Develop governance process**
  - Design process
  - Design data flows
  - Design dialogs
- **Define and create organizational structure**
  - Define roles and involvement mode
  - Assign roles to tasks and notification
- **Process Administration**
  - Monitor active processes
  - Manage "failed" instances, unassigned tasks
- **Process stakeholders**
  - Use Process Board
  - Manage their tasks

## Aris Certified Risk & Compliance Manager

### Audience:

Experienced ARCM user

### Prerequisites:

The test assumes a general understanding of governance, risk and compliance. The questions cover the following products:

- **ARIS Risk & Compliance Manager**

This test is designed to check for skills and understanding of usage, customization and management of an ARIS risk and compliance environment.

### Test Structure:

The certification test is practice-oriented and simulates situations typical for risk and compliance management. It tests your ARIS Risk & Compliance Manager (ARCM) knowledge in all areas that are important for usage, customization and management of your ARIS risk and compliance environment.

The ARIS Certified Risk & Compliance Manager certification is done web-based as multiple-choice test. This proctored examination is designed for the experienced ARCM user. It consists of about 50 multiple choice questions, which cover a range of ARCM topics. To pass the test and receive certification, you must score a 66% on the test within 180 minutes.

### Preparation Guidelines :

Successful completion of the ARIS Certified Risk & Compliance Manager test requires a solid knowledge in using ARCM as can be acquired through Software AG training courses plus practical experience.

While the suggested resources can assist you in preparing for the test, it is imperative that you have hands-on experience in modeling risk and compliance structures as well as customizing and managing the ARIS Risk & Compliance Manager.

For topics covered in the test, please review the ARCM documentation delivered with its installation files.

No course completion is required to sit for this exam, but prospective examinees are strongly recommended to have completed the courses:

- Business Process Modeling with ARIS (optional)
- Compliance Management with ARIS Risk & Compliance Manager

### Duration:

3 hours

### Test Topics:

Individuals who successfully complete the ARIS Certified Risk & Compliance Manager test will have demonstrated knowledge and skills associated with the following subject areas:

- **General Topics**
  - General Topics
  - Capabilities of ARIS Risk & Compliance Manager
- **Modelling Conventions**
  - Process
  - Hierarchy
  - Organization
  - Users and User Groups
  - Sign-Off
  - Survey
  - Audit
  - Policy
  - Regulatory Change
- **Semantic Check and Export**
  - Semantic Check
  - Data Export Report
- **Administration**
  - Administration Topics
- **Modules**
  - Compliance Testing
  - Operational Risk
  - Issue
  - Survey

**ALFABET**  
COURSES

## ALFABET

### Plan and manage your enterprise transformation

Close the gap between business and IT. Alfabet transforms organizations by improving how they plan and optimize their IT portfolios.

With the Alfabet IT Planning & Portfolio Management Platform, you can increase your return on IT investments and reduce transformational risks by understanding when, where, how and why to make changes in your organization's IT portfolio.

Software AG's Alfabet Enterprise Architecture Management (EAM) Platform provides a collaborative platform for all stakeholders in IT, business and finance to understand their current IT landscape and plan for the future.

Better understand how effectively and efficiently IT supports business goals and where EAM processes can be improved. Against the backdrop of corporate governance, the Alfabet EAM Platform delivers the transparency and facilities needed to achieve targeted business outcomes.

Learn more about all the training options available for Alfabet.

# Learning Path **ALFABET**

## Methodology Training

**Alfabet  
Application  
Portfolio  
Governance**  
3 days

**Alfabet  
Technology  
Portfolio  
Governance**  
2 days

## Technical Training

**Alfabet  
eXpand**  
3 days

**Alfabet  
Reporting**  
2 days

## ALFABET Courses

### Alfabet Application Portfolio Governance

#### Description:

Upon completion, participants will have the knowledge required to successfully work with Alfabet on a methodological level regarding the classification and analysis all around the application portfolio. This includes the classification of applications regarding their business-, information- and technical architecture. Furthermore participants will learn how to assess application regarding various aspects in Alfabet.

The training consist of the parts:

- **Theory** - Introduction of motivation and goals, underlying concepts and meta model extracts, relevant roles, capabilities and processes of the IT organization
- **Reality check & mapping** - Analysis of practical examples documented in Microsoft® Visio®, PowerPoint® and/or Excel and mapping of the data with Alfabet concepts and model
- **Tool training** - Use of the consolidated data to document and plan pre-defined training scenarios. The methodology training data and examples are standard showcase data only

#### Audience:

ALFABET users with job positions like enterprise architect, domain architect, application owner, technology architect, program manager

#### Prerequisites:

Basic computer handling and possibly EA and business-IT management knowledge

#### Extensions:

The following courses are proposed for continuing education:

- Alfabet Technical Portfolio Governance

#### Duration:

3 days

#### Content:

- Business architecture portfolio management
- Application documentation
- Management of application portfolio structure
- Business-, information- and technical context of the application
- Application assessment and analysis
- Application life-cycle management
- Application governance

### Alfabet Technical Portfolio Governance

#### Description:

This course is focused on managing the enterprise technologies from a strategic point of view to a physical level which is a prerequisite for operationally running the enterprise IT. Participants will learn how to get transparency on the technologies that are used to run applications and on the different deployments of the IT systems at various locations. This training will enable life-cycle planning for different relevant technical entities in order to take the technology portfolio into the future.

The training consists of the parts:

- **Theory** - Introduction of: motivation and goals, underlying concepts and meta model extracts, relevant roles, capabilities and processes of the IT organization
- **Reality check & mapping** - Analysis of practical examples documented in Visio, PowerPoint and/or Excel and mapping of the data with Alfabet concepts and model
- **Tool training** - Use of the consolidated data to document and plan predefined training scenarios. The methodology training data and examples are standard showcase data only

#### Audience:

ALFABET users with job positions like technology architect, application owner

#### Prerequisites:

Basic computer handling and possibly EA and business-IT management knowledge

The following courses are required as Prerequisites:

- Alfabet Application Portfolio Governance

#### Duration:

2 days

#### Content:

- Component and platform documentation, definition of standards
- Component categories and types
- Platform architecture: different platform use-case modeling approaches
- Technology portfolio management
- Technology assessment, analysis, approval and road-map planning

## Alfabet eXpand

### Description:

eXpand is used to configure user profiles and functionality for Alfabet. The meta-model can be enhanced to reflect a Alfabet customer's unique information needs. Configured use-case based user profiles grant individual users different perspectives/views on the data stored in the Alfabet database. This course enables participants to work with eXpand, adjust existing user profiles or create new ones. Upon completion, participants will have the knowledge required to successfully create or edit Alfabet user profiles, create or edit profile guide pages, enhance the meta-model with custom properties, and display these properties on object views and in editors, as well as adjust object views and create object cockpits. Participants will also be able to transport configurations in their entirety or in parts between two databases or environments. Participants will also be able to successfully create or edit Alfabet guide pages, including menus and topics; download guide pages from an existing database and upload guide pages into the target database.

### Audience:

Alfabet users who will be working with eXpand

### Prerequisites:

- Basic computer handling and possibly EA and business IT management knowledge
- Participants should have worked with Alfabet (as a user or in a project), technical disposition (developer background would be optimal, but not a requirement)

### Duration:

3 days

### Content:

- Tour through Alfabet eXpand / overview
- Enhancing the meta-model (custom properties, enumerations)
- Creating & editing user profiles (custom editors, custom object views, working with view schemes and class settings)
- Guide page design
- Creating wizards
- Advanced profile configuration (custom selectors, custom explorers, etc.)
- Configuring stereotypes
- Overview over XML objects (status concepts, rights management, etc.)
- Practical exercises / case study (group assignment)
- Configuration quality recommendations (naming conventions & best practices)

## Alfabet Reporting

### Description:

Alfabet offers functionality that allows users of eXpand to write both tabular reports with the Alfabet Query Language or with native SQL. These tabular reports can be used to populate visual reports (such as trees, cluster maps, matrix reports or bar charts) with data from a Alfabet database. eXpand is then used to manage access rights to these reports or integrate them into existing user profiles. Upon completion, participants will be able to turn their tabular reports into visual reports. Furthermore, the course will give some insights into the quirks and pitfalls of writing queries for Alfabet working with native SQL.

### Audience:

Alfabet users who will be writing Alfabet reports, people who plan to be working with eXpand beyond beginner level

### Prerequisites:

- Basic computer handling and possibly EA and business IT management knowledge
- Participants should have beginner level knowledge in SQL, should have worked with Alfabet (as a user or in a project), technical disposition (developer background would be optimal, but not a requirement)

### Duration:

2 days

### Content:

- Working with the query builder
- AQL: joins, instructions
- Working with native SQL
- Creating visual reports
- Walk-through/best practices (using the class viewer to find references, etc.)
- Practical exercises
- Interpreting customer specifications

**ALFABET**



**MASHZONE**  
COURSES

## MashZone

### Transform business data quickly into interactive mashups

- Share knowledge and collaborate with colleagues
- View process monitoring results in a business-oriented way

Need to create graphical, easy-to-understand dashboards? Get into the zone: MashZone. You can create interactive mashups for evaluating a wide range of data from internal and external sources. Gain better insights for faster and more accurate decision-making.

# Learning Path **MashZone**

Dashboard  
Design based  
on MashZone  
1 day

**MashZone**

Go back!

## MashZone Course

### Dashboard Design based on MashZone

#### Description:

Create interactive dashboards by integrating heterogeneous data sources. MashZone enables you to create analytical dashboards by combining data from different sources. You can gain new insights by combining any source within your data feeds and apply various operators to calculate KPIs "on the fly." Using graphical editors only, you can present data feed results in appealing dashboards and charts within minutes. You may even add interactivity to present relevant information that supports the decision-making process in a context-based way.

#### Audience:

Users wishing to visualize data with MashZone

#### Topics:

This training will give you an in-depth introduction into the usage of MashZone. You will learn how to read from different sources, such as text files, Microsoft Excel, PPM or the Internet and enhance the results based on the embedded operator library. Based on this functionality, you will render the feed results through appealing charts and other display options, all using the visual composer. A number of different components will be illustrated in detail, e.g., charts, maps, tables, lists and many more. Finally, you learn how to filter results interactively. The training enables you to create astonishing and interactive dashboards based on your own data to share them with your colleagues.

#### Prerequisites:

- Computer-handling skills
- Understanding of data formats and data sources

#### Duration:

1 day

#### Content:

- MashZone overview
  - Goals of the application
  - Demonstration
- Doing analysis with MashZone
  - Navigation through existing dashboards
  - Collaboration: Search, re-use and rate MashApps
- Create dashboards with MashZone
  - Data sources
  - Feed editor
  - Visual composer
- Administration of MashZone
  - User management and rights
  - Backups: Import and export of mashups and data feeds
- The most important features will be developed together with the help of up-to-date examples

# WEBMETHODS COURSES

## WEBMETHODS

### Say “so long” to silos

For too long, traditional businesses have operated with inflexible, siloed IT systems. Digital Enterprises—including the majority of the Fortune 100—are changing that. They’re using scalable IT systems that work, thanks to webMethods.

webMethods enables you to quickly build agile apps that integrate all systems. You can automate, manage and monitor business processes that span across disparate applications and systems within the company and between companies (B2B). And only Software AG’s webMethods Integration Platform includes tightly integrated, market-leading and time-tested technology combined with a time-saving configuration-based approach and best practices based real-world deployments.

Power your Digital Enterprise with webMethods:

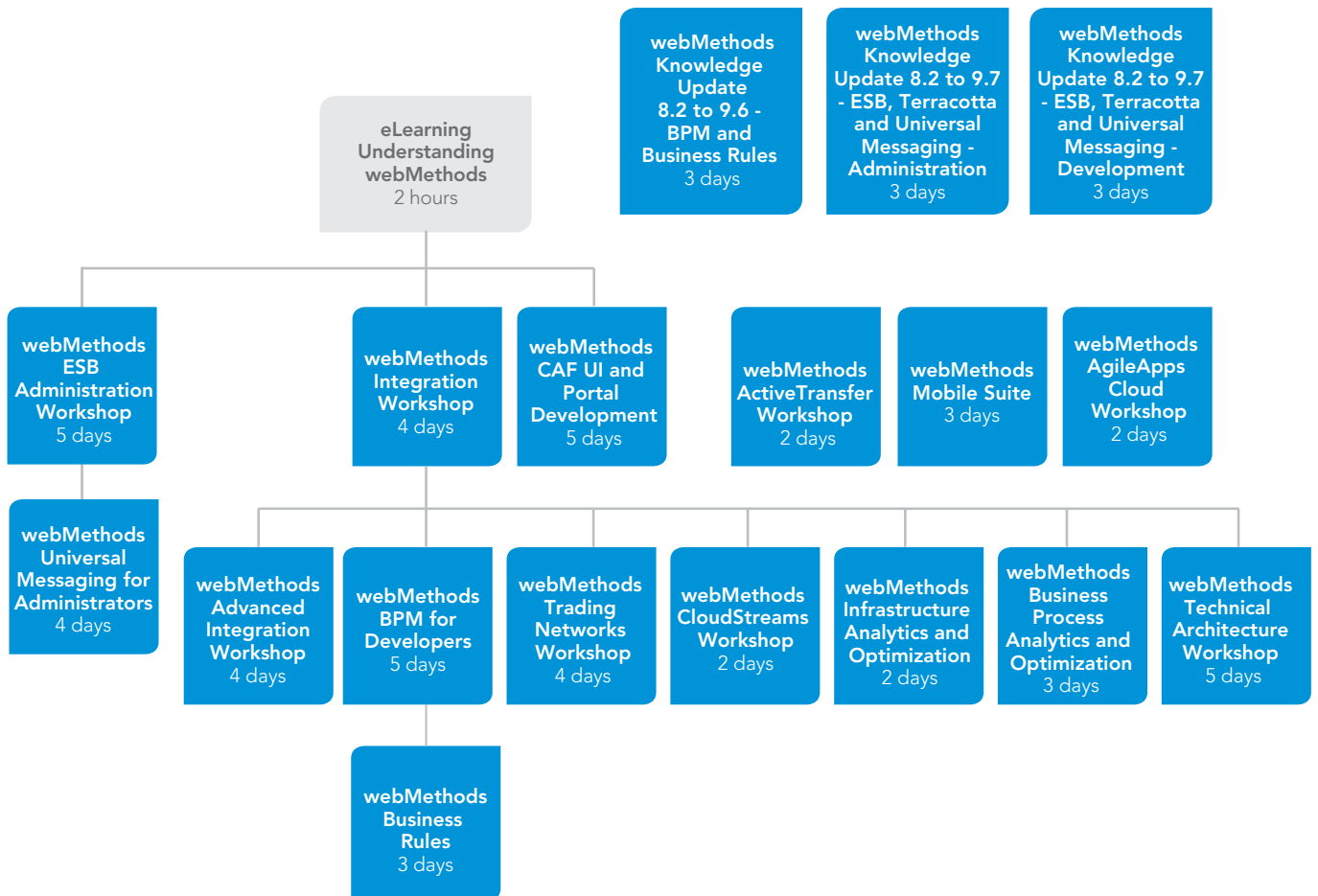
- Connect, integrate and mobilize all kinds of applications
- Integrate SaaS apps securely with ERP and other on-premise apps
- Improve B2B integration with a single gateway for trading partners
- Automate processes end-to-end across systems, removing duplicate steps
- Assure your processes run on consistent data

Learn more about all the training options available for webMethods.

# Learning Path WEBMETHODS

WEBMETHODS

webMethods 8.2 knowledge required



Go back!

## WEBMETHODS eLearning

### Understanding webMethods

**Description:**

Learn about which products are part of the webMethods product suite, what they are used for in different solution scenarios and gain a first impression on how to work with them.

**Audience:**

Application developers, BPM developers, business analysts, business architects, business users, IT architects, project managers, system administrators, system programmers, systems analysts, Web (service) developers

**Topics:**

Have a basic understanding of the webMethods products, of their main functions and of some technical concepts.

**Prerequisites:**

A basic understanding of SOA and BPM

**Duration:**

2 hours

**Location:**

eLearning

**Content:**

The following topics regarding the products are covered:

- What it is and what it is good for
- Some first technical information
- What does it look like
- How do you benefit from using the product



## WEBMETHODS Courses

### webMethods Knowledge Update 8.2 to 9.6 - BPM and Business Rules

**Description:**

Release 9.6 of the webMethods product suite is another significant step in combining cloud, mobile, and social technologies with automated business processes and the agility needed to fully power your digital enterprise. In this course, participants will be provided with detailed technical information on features that were released for webMethods BPMS in 9.0, 9.5 and 9.6. A summary will also be provided of enhancements made to the webMethods Business Rules for 9.0, 9.5 and 9.6. Hands-on exercises will be conducted in addition to lecture and demonstrations using 9.6.

**Audience:**

webMethods developers, webMethods administrators

**Topics:**

At the end of this course, you will be able to:

- Understand the new and enhanced capabilities that were released for BPMS in webMethods 9.0, 9.5 and 9.6
- Understand key enhancements made in webMethods Business Rules 9.0, 9.5 and 9.6

**Prerequisites:**

Experience with webMethods BPMS 8.x

**Duration:**

3 days

**Content:**

- Improved process modeling and extended BPMN support (BPMN sub-process)
- Messaging and Universal Messaging support
- Improved and enhanced process debugging
- EDA support and predefined EDA events
- Process stages and milestones
- Task engine enhancements and Open Presentation Layer (OPL)
- Mobile support (mobile process monitor, mobile task inbox)
- Enhanced process auditing and archiving
- webMethods Business Rules enhancements

### webMethods Knowledge Update 8.2 to 9.7 - ESB, Terracotta and Universal Messaging - Administration

**Description:**

In this course, participants will be provided with technical information on key administration features that were released for ESB, Terracotta and Universal Messaging in 9.0, 9.5, 9.6 and 9.7. A summary will also be provided of enhancements made to the entire webMethods suite, new products and other enhanced products for 9.0, 9.5, 9.6 and 9.7. Hands-on exercises will be conducted in addition to lecture and demonstrations using 9.7.

**Audience:**

webMethods administrator, webMethods developers

**Topics:**

At the end of this course, you will be able to:

- Understand the enhanced administration capabilities that were released for ESB, Terracotta and Universal Messaging in webMethods 9.0, 9.5, 9.6 and 9.7
- Understand key enhancements made suite-wide and for various other products

**Prerequisites:**

Experience with webMethods BPMS 8.x

**Duration:**

3 days

**Content:**

- webMethods ESB enhancements:
  - WS-RM and WS-addressing enhancements
  - JSON™ support
  - OAuth and SFTP client support
  - Universal messaging
  - Usability enhancements
  - Various security enhancements
  - Support for continuous and reliable operations across DB outages
  - Broker
  - Relocation of storage files from old to new location
  - Multi-instance Integration Server
- Summary of new and enhanced webMethods products
- Summary of webMethods suite-wide enhancements
- webMethods Integration Server & Terracotta-IS clustering using Terracotta Server Array
- webMethods Universal Messaging overview and enhancements
- webMethods integration Server & Universal Messaging—connect IS to Universal Messaging provider for Java® Message Service (JMS), configure basic authentication and set up a Universal Messaging cluster

## webMethods Knowledge Update 8.2 to 9.7 - ESB, Terracotta and Universal Messaging - Development

### Description:

In this course, participants will be provided with technical information on key development features that were released for webMethods ESB, Terracotta and Universal Messaging in 9.0, 9.5, 9.6 and 9.7. A summary will also be provided of enhancements made to the entire webMethods suite, new products and other enhanced products for 9.0, 9.5, 9.6 and 9.7. Hands-on exercises will be conducted in addition to lecture and demonstrations using 9.7.

### Audience:

webMethods developers

### Topics:

At the end of this course, you will be able to:

- Understand the new and enhanced development capabilities that were released for ESB, Terracotta and Universal Messaging in webMethods 9.0, 9.5, 9.6 and 9.7
- Understand key enhancements made suite-wide and for various other products

### Prerequisites:

Experience with webMethods 8.x

### Duration:

3 days

### Content:

- webMethods ESB enhancements:
  - WS-RM and WS-Addressing enhancements
  - JSON support
  - OAuth and SFTP client support
  - Universal Messaging
  - Usability enhancements
  - Terracotta support
  - Various security enhancements
  - Service development plug-in enhancements
- Summary of new and enhanced webMethods products
- Summary of webMethods suite-wide enhancements
- webMethods Integration Server & Terracotta - service results caching, custom cache managers & caches, caching with BigMemory (off-heap), Ehcache Search API and Enhanced XML parser
- webMethods Universal Messaging overview & enhancements
- webMethods Integration Server & Universal Messaging: using Universal Messaging provider for JMS, support for IS native (IData) publish/subscribe and provider filtering

## webMethods Integration Workshop

### Description:

This course is meant for someone who is new to webMethods and ESB (webMethods Integration Server) development. It introduces the webMethods brand within the Software AG Digital Business Platform. Participants learn through hands-on exercises how to develop/debug and monitor integration solution services using Software AG Designer and My webMethods Server (MWS). The concept of the data pipeline is introduced and students learn to use mapping tools and flow services to move XML documents and flat-file data into and out of Integration Server. Students are also introduced to messaging, the Integration Server Java® API and the Web service capabilities of the Integration Server. Students also learn about webMethods adapters. The adapter for Java® DataBase Connectivity (JDBC®) is covered in detail. In the last section of this course, students have a chance to use the services they developed within an automated webMethods Business Process Management Suite (BPMS). This gives them a small taste of what's possible using webMethods BPMS. Exercises are designed to prepare students for self-sufficiency.

### Audience:

Application developers

### Topics:

At the end of this course, you will be able to:

- Describe the architecture and components of the Software AG Digital Business Platform
- Explain the interaction of services and the data pipeline
- Use built-in services and webMethods adapters to perform integration tasks
- Develop custom packages and services to perform business logic
- Create services using the webMethods Flow and Java languages
- Create de-coupled integrations via publish-subscribe messaging
- Send and receive data over the Internet
- Orchestrate services using a business process model

### Prerequisites:

- Object-oriented development experience strongly recommended but not required
- 1 to 2 years experience in software development, preferably Java

- Solid hands on experience working with the Eclipse IDE
- Familiarity with XML

The following courses are required as prerequisite:

- Understanding webMethods (eLearning)

### Extensions:

The following courses are proposed for continuing education:

- webMethods Advanced Integration Workshop
- webMethods BPM for Developers
- webMethods Trading Networks Workshop
- webMethods Business Rules
- webMethods Technical Architecture Workshop
- webMethods ESB Administration Workshop

### Duration:

4 days

### Content:

- webMethods overview
- Using Software AG Designer
- Introduction to services
- Document types
- Flow services
- Mapping
- Java services
- Monitoring services
- Invoking services and XML processing
- XSLT services
- Flat file handling
- Web services
- REST services
- Messaging using JMS
- webMethods messaging
- Adapter for JDBC®
- Overview of Business Process Management (BPM)

## webMethods Advanced Integration Workshop

### Description:

In this follow-up to the webMethods Integration Workshop, participants are introduced to the many advanced features of webMethods Integration Server (IS) and messaging providers (Universal Messaging and Broker). This course will enable a participant to go beyond basic webMethods development and take advantage of more advanced features/capabilities built into IS, Designer and messaging providers. It will also go deeper on Java® services, error handling for Flow and Java, flat-file processing and using publish/subscribe in integration solutions. Participants will also learn how to optimize and configure services for performance and scalability using various techniques, including caching. Finally, advanced Web services will be covered. Participants will learn through instructor lecture, discussion and hands-on exercises.

### Audience:

webMethods ESB developers

### Topics:

At the end of this course, you will be able to:

- Develop services using Java® and Software AG Designer
- Perform error handling and debugging in both Flow and Java services
- Optimize services for performance
- Explain exactly-once processing when subscribing to documents from a message provider
- Explain the publish/subscribe mechanism
- Explain how to use filters when subscribing to IS documents
- Explain Java Application Programming Interfaces (API) to Universal Messaging using Java® Message Service (JMS)
- Perform processing on delimited and fixed length flat files
- Explain the use of caching and enhanced XML parsing on the Integration Server
- Discuss the various parameters for optimizing and securing internal integrations
- Explain and use advanced Web services features
- Overview and use of the application platform

### Prerequisites:

- webMethods skills as provided in the course "webMethods Integration Workshop"
- Object-oriented development experience (Java)
- Experience with Web development, HTML and XML

The following courses are required as prerequisite:

- Understanding webMethods (eLearning)
- webMethods Integration Workshop

### Extensions:

The following courses are proposed for continuing education:

- webMethods Technical Architecture Workshop
- webMethods Certified ESB Developer

### Duration:

4 days

### Content:

- webMethods architecture overview
- Advanced Java services
- Service error handling and debugging
- IS client to messaging providers
- webMethods messaging triggers - filtering
- Service performance and parameters
- Exactly-once processing and error handling
- Using Java and JavaScript with Universal Messaging provider for JMS
- Advanced flat-file handling
- ESB performance – caching and enhanced XML parsing – Terracotta
- Advanced Web services

## webMethods BPM for Developers Workshop

### Description:

This course introduces webMethods BPMS within the Software AG webMethods suite. Participants learn through hands-on exercises how to either to enhance an imported logical business process model or to implement a technical business process model from scratch. The process model will be enhanced in Designer by adding underlying invoked services and business rules. Moreover, the students will implement automated business processes that require User Task execution. Deployed processes will be tested and executed. Their execution will be monitored using My webMethods and Business Console. Additionally, the class covers more advanced topics such as Quality of Service settings, Task User Interface development, and starting processes from various sources. At the end of this course, students will be able to model, execute, debug, and monitor business processes across the extended enterprise. This course is an intensive workshop; the core of the course is a set of representative example business cases that illustrate the features of webMethods BPMS. Exercises are designed to prepare students for self-sufficiency.

### Audience:

Process developers, process engineers, process administrators, process architects

### Topics:

At the end of this course, you will be able to:

- Rapidly build BPMN-compliant business processes using Software AG Designer
- Import and enhance or design process models
- Debug, deploy, run and monitor business processes
- Work with joins, parallelism and correlations
- Event handling
- Leverage user tasks and assign them to users, groups or roles
- Implement robust processes using exception handling
- Start and version business processes
- Maintain BPM and user task-related metadata in an SOA registry/repository

### Prerequisites:

- Being familiar with general BPM concepts, e.g., as provided in Software AG's FREE book "BPM Basics for Dummies"
- 1 to 2 years experience in software development, preferably Java
- Familiarity with the Eclipse IDE

The following courses are required as prerequisite:

- Understanding webMethods (eLearning)
- Attending the webMethods Integration Workshop is strongly recommended

### Extensions:

The following courses are proposed for continuing education:

- webMethods Business Process Analytics and Optimization
- Certified BPM Developer

### Duration:

5 days

### Content:

- Introduction to BPM
- Planning and starting development
- Introduction to process modeling and execution
- User Task activities
- Process administration and monitoring
- Parallelism and joins
- Message handling, correlation and reuse
- User Task development and refactoring
- User Task customization, events, assignments and administration
- Permissions and User Task Management
- Processes error and timeout handling
- Invocation of webMethods Business Rules
- Starting business processes
- Process metadata
- Team development and process versioning
- Process simulation (optional)
- Introducing Business Process Analytics and Monitoring (BAM) (optional)

## webMethods ESB Administration Workshop

### Description:

Participants will learn installation, updating, configuration of important components of the webMethods ESB: specifically Integration Server (IS), My webMethods Server and Universal Messaging. The course is designed to enable a participant to undertake both one-time and day-to-day administration duties from development to production.

### Audience:

Administrators; also beneficial to developers

### Topics:

At the end of this course, you will be able to:

- Describe the components and architectures of the webMethods ESB platform
- Understand how to use the Software AG Installer and Update Manager applications for product and fix installations and initial configuration
- Use tools for administering and monitoring Integration Server, Universal Messaging and My webMethods Server
- Performance tuning options for the ESB
- Perform troubleshooting tasks for the Integration Server
- Understand recommended day-to-day operations
- Understand version control under webMethods
- Understand the use of the asset build environment
- Deploy projects using webMethods Deployer

### Prerequisites:

- Application/system administration experience
- Familiar with middleware products and solutions

The following courses are required as prerequisite:

- Understanding webMethods (eLearning)

### Duration:

5 days

### Content:

- webMethods Overview
- Installing the webMethods ESB
- ESB startup and shutdown
- Update manager
- Basic configuration
- IS packages
- IS instance management
- Logging and audit
- Securing the infrastructure
- Universal Messaging - architecture and management
- Managing webMethods messaging triggers
- Performance tuning
- Troubleshooting Integration Server
- Day-to-day operations
- Version control
- Asset build environment
- Application staging and deployment

## webMethods Universal Messaging for Administrators

**Description:**

It course covers all the key topics required by webMethods customers who have to administer Universal Messaging with webMethods products (e.g., Integration Server). Participants will learn through instructor lecture, discussion and hands-on exercises.

**Objectives:**

At the end of this course, you will be able to:

- Install and configure webMethods Universal Messaging
- Administer Universal Messaging
- Connect the webMethods Integration Server (IS) to Universal Messaging (webMethods Messaging)
- Connect the webMethods IS to Universal Messaging provider for JMS
- Monitor and deploy Universal Messaging
- Configure Universal Messaging for basic authentication and authorization
- Configure Universal Messaging for secure connections (one-way and two-way SSL)
- Configure Universal Messaging clusters
- Configure Universal Messaging zones for message interest propagation
- Optimize performance
- Use the Universal Messaging Admin API and example applications

**Audience:**

- webMethods administrators

**Prerequisites:**

- webMethods skills as provided in the course webMethods ESB Administration Workshop

**Duration:**

4 days

**Content:**

- Overview of Universal Messaging
- Installation
- Administration and configuration
- Connecting webMethods IS to Universal Messaging (webMethods Messaging)
- Connecting webMethods IS to Universal Messaging provider for JMS
- Monitoring and deployment
- Security: basic authentication and authorization
- Security: IS to Universal Messaging - secure connections Universal Messaging (SSL)
- Clustering
- Zones
- Performance, tuning and other recommendations
- Administration API

## webMethods CAF UI and Portlet Development Workshop

### Description:

This course is a workshop on developing web UIs with webMethods Composite Application Framework (CAF) as stand-alone web pages or portlets running on My webMethods Server (MWS). Students will learn to use controls/tags from the palette and to connect them with data sources such as Web Services. Advanced chapters will cover input validation, Ajax controls and internationalization. Specific topics such as navigation, customization and portal server administration are handled in separate sections for stand-alone web applications and portal deployment. Finally, with OpenCAF, shell and portlet development can be JSF facelet-based, making it easy to adopt prevailing design principles (e.g. Single-Page Application, Responsive Web Design) by integrating with popular UI frameworks such as AngularJS and Bootstrap.

### Audience:

BPM developer, Portal developer, Web (Service) developer

### Topics:

- Develop web UIs with webMethods Composite Application Framework (CAF)
- Configure and run web pages and portlets in My webMethods Server (MWS)
- Customize and personalize CAF applications in MWS

### Prerequisites:

- Understanding of internet applications, HTML, CSS and JavaScript
- Java programming skills

The following courses are required as prerequisite:

- Understanding webMethods
- webMethods Integration Workshop
- webMethods BPM for Developers

### Extensions:

The following courses are proposed for continuing education:

- webMethods Certified CAF Developer

### Duration:

5 days

### Content:

- webMethods CAF Overview and Concepts
- Using Software AG Designer
- Creating projects, views and portlets
- Using simple and complex controls (including Ajax)
- Connecting to web services
- Data Binding, Managed Beans and Content Providers
- Actions and Data Flows
- Input validation
- Client-side functionality with JavaScript
- Internationalization
- Navigation in stand-alone Web applications
- Portal Administration & Permissions Management
- Inter-portlet communication (linking and wiring)
- Portal Personalization (skins, shells, rules)
- JSF facelet-based implementation of shells and views (OpenCAF)
- Connecting to OSGi services with webMethods Application Platform



## webMethods CloudStreams Workshop

**Description:**

In this workshop the participant will learn about webMethods CloudStreams through instructor lecture, hands-on exercises and discussion. The workshop begins with an overview of the webMethods product suite. This is useful for attendees who are new to webMethods. After the webMethods intro, the key aspects of CloudStreams are covered in various topics and hands-on exercises. This course uses the CloudStreams Salesforce® Provider as an example in the slides and exercises, however additional information is provided on some of the other available providers. Even though Salesforce is used in the slides and exercises as the "cloud provider," this workshop will be beneficial no matter which CloudStreams Cloud providers you will be using. This course is an intensive workshop. Exercises are designed to prepare students for self-sufficiency.

**Audience:**

webMethods developers and architects

**Prerequisites:**

- Experience with webMethods ESB (Integration Server) service development as provided in the course webMethods Integration Workshop
- Salesforce development experience (optional)

**Duration:**

2 days

**Content:**

- webMethods product suite overview
- Cloud integration scenarios
- CloudStreams architecture, install and configuration
- CloudStreams connectors and connector services
- Working with streaming providers
- Virtual services and policies
- CloudStreams analytics dashboard

## Building Applications in the webMethods AgileApps Cloud

### Description:

webMethods AgileApps Cloud is a lightweight Business Process Management (BPM) and application Platform-as-a-Server (aPaaS) that allows subject matter experts, as well as developers, to visually build and deploy process-driven, web-based, database application solutions in weeks rather than months. This course shows you how to create a webMethods AgileApps Cloud application within minutes by using one of the many pre-built application templates. If you have a spreadsheet, you can directly import the data from it to automatically create an application. You will also learn how to create new webMethods AgileApps Cloud applications from scratch by creating objects and customizing their forms. Finally, you will learn how to create a workflow process model using the drag and drop process editor.

### Audience:

- Subject matter experts
- Application developers

### Topics:

At the end of this course, you will be able to:

- Create new AgileApps Applications from an Excel document, from a template and from the wizard
- Manage permissions for Users, Roles, and Teams
- Customize object forms and assign the forms to Roles
- Create Process Models to implement workflows and approvals
- Create custom email templates and document templates
- Manage and monitor application data
- Understand some of the advanced topics, such as invoking Web Services, using the Java API and publishing and subscribing to Application Packages.

### Prerequisites:

- Very little data modeling is required
- Browser skills are required
- Basic knowledge of HTML is helpful

### Extensions:

The following courses are proposed for continuing education:

- webMethods Certified AgileApps Consultant

### Duration:

2 days

### Content:

- Introduction to webMethods AgileApps Cloud
- Creating Applications and Defining Objects
- Defining User Access to an Application
- Customizing a Form
- Building a Process Model
- Defining Business Rules
- Customizing Email and Document Templates
- Integrating Web Services and Using Custom Java Classes
- Managing and Monitoring Data
- Deploying webMethods AgileApps Cloud

## webMethods Mobile Suite

### Description:

This course focuses on the visual development of cross-platform mobile apps with webMethods 9.7 Mobile Suite. Hands-on exercises are provided in addition to lecture and demonstrations. A scenario used in part of the hands-on exercises is a bookstore app. Users of the app will be able to browse the book catalog, view details and submit ratings for books. The student will develop the bookstore app visually, working with the outline editor of the mobile development perspective in Software AG Designer. Powerful UI concepts and a MVC-based app-architecture will be covered. Using Mobile Administrator, the bookstore app will then be built for Android® and iOS® on a remote centralized build environment, and deployed on an Enterprise App Store. Doing so will allow users to install the app on real devices using the Enterprise App Store Client. Other Mobile Administrator capabilities like Mobile App Management (MAM) and Mobile Device Management (MDM) will be covered as well. A third Mobile Suite component covered in this training is the Enterprise Gateway Server, which is about DMZ-level security. The student will learn using the rules framework provided in Enterprise Gateway Server to protect the internal resources against various kinds of threads and attacks.

### Audience:

Mobile app developers, mobile app administrators, mobile device administrators

### Topics:

At the end of this course, you will be able to:

- Visually develop cross-platform mobile apps with webMethods Mobile Development
- Use Mobile Administrator to set up an Enterprise App Store, deploy and manage apps, and manage mobile devices
- Setup and configure remote build nodes for Mobile Administrator
- Use Enterprise Gateway Server to setup protection against DoS attacks and other sort of threats at DMZ-level

### Prerequisites:

- Java programming skills
- Being familiar with Software AG Designer
- Basic knowledge of Java ME is helpful but not required

### Duration:

3 days

### Content:

- General overview of webMethods Mobile Suite 9.7
- Mobile Administrator and the Enterprise App Store
- MAM and MDM
- Mobile development perspective in Designer
- Structure of a mobile project
- Outline editor and the Application Model (AML)
- UI concepts (pane configurations, views, templates, services, data-sources)
- MVC architecture
- Offline data synchronization
- Mobile solution for webMethods BPMS: the Mobile Task Inbox
- DMZ-level security with Enterprise Gateway Server

## webMethods Technical Architecture Workshop

### Description:

This course exposes the experienced integration architect to best practice architectural principles for the webMethods suite. The class starts with describing key architectural framework principles to execution of the webMethods platform. Participants will learn and understand the webMethods Reference Architecture. The participant will also explore many key features and aspects of the webMethods ESB, BPMS and asset management to deliver a highly available and performant enterprise architecture.

### Audience:

Enterprise and solution architects with a background in object-oriented software development, application integration, XML messaging and the webMethods suite, whose role is to design and implement integration solutions with the webMethods suite.

### Topics:

At the end of this course, you will be able to:

- Develop an architecture framework
- Describe solutions architectures utilizing the webMethods suite
- Design scalable and performing architectures with the webMethods suite
- Understand the operational and deployment requirements in the webMethods suite
- Understand key concepts in asset governance

### Prerequisites:

- Experience with the webMethods platform, especially ESB components such as Integration Server and Broker
- Some Java experience including development and JVM knowledge
- Experience with XML messaging, Web services and application integration
- Understanding of computer networking and administration

The following courses are required as prerequisite:

- Understanding webMethods (eLearning)
- webMethods Integration Workshop
- webMethods ESB Administration Workshop

### Duration:

5 days

### Content:

- Overview of the webMethods distributed architecture
- Architecting in the ESB: Integration Server and messaging
- Architecting with BPM
- Distributed design and deployment
- Operational aspects of key components

## webMethods Business Process Analytics and Optimization

### Description:

This hands-on workshop provides information on how to use webMethods Optimize for Process to monitor and analyze business processes. This workshop includes an introduction to the Optimize architecture and components, including My webMethods Server (MWS), Data Collectors, Analytic Engine, and the Optimize Database. The workshop also covers usage of the Optimize web UI, creation of KPIs, Dimensions, Rules and Actions. The workshop also covers Closed Loop Analytics and the use of webMethods Business Console (for some process monitoring and Closed Loop Analytics). This course does not go into details on installation of the product, however important configuration steps are covered.

### Audience:

- Process Developers
- Process Administrators
- Process Analysts
- Operational Staff

### Prerequisites:

- Being familiar with general BPM concepts, e.g. as provided in Software AG's FREE book "BPM basics for Dummies"
- Attending the course "webMethods BPM for Developers" is helpful

### Duration:

3 days

### Content:

- Introduction to BAM and webMethods Optimize
- Architecture and Startup
- Optimize Environments
- MWS and Optimize UI Overview
- Business Process Management Overview
- Business Process Monitoring
- Events, KPIs and Dimensions
- Rules and Alerts
- Configure Web Service Actions
- External Business Processes
- Closed Loop Analytics
- Improving the Long-Term Performance of a Process
- Advanced Topics
- Best Practices

## webMethods Infrastructure Analytics and Optimization

### Description:

This hands-in workshop provides an administrator perspective on using webMethods Optimize for Infrastructure to monitor webMethods components such as Integration Server, Messaging provider (Universal Messaging or Broker), Terracotta Server Array, etc. This workshop includes an introduction to the Optimize architecture and components, usage of the Optimize web UI, managing/deploying Optimize environments and creation of KPIs, rules, actions, and user defined Overviews.

### Audience:

- Administrators
- Operational Staff

### Prerequisites:

Attending the "webMethods Integration Workshop" is recommended

### Duration:

2 days

### Content:

- Introduction to BAM and webMethods Optimize
- Architecture and Startup
- Optimize Environments
- Optimize User Interface Overview
- Discovery, Assets and Monitored Components
- Events, Dimensions and Key Performance Indicators (KPIs)
- Rules and Alerts
- Configure Web Service Actions
- Advanced Topics
- Best Practices

## webMethods Trading Networks Workshop

### Description:

Participants will learn Trading Networks concepts and configuration, including profiles, document types, and processing rules. The course discusses monitoring, use of Trading Networks with business processes, and advanced topics such as gateway services, custom delivery methods, and queues. In addition, all Trading Networks configuration properties are covered, and a method for using Trading Networks services in flow is discussed. There is also an optional appendix on webMethods EDI.

### Audience:

- Trading Networks administrators
- Integration Server developers with Trading Networks responsibility

### Topics:

At the end of this course, you will be able to:

- Describe the concepts of a trading network
- Understand how to create partner profiles, document types, and processing rules
- Use administrative tools across the Integration Server and MWS
- Deploy Trading Networks projects using webMethods Deployer
- Understand performance options for the Integration Server and Trading Networks
- Create and use gateway services
- Implement Trading Networks security features
- Build custom services for delivery, data transformation, and duplicate checking
- (optional) Setup EDI document types, process inbound and outbound EDI documents, and use TN to process EDI documents

### Prerequisites

- webMethods Integration Workshop
- Understanding webMethods (eLearning)

### Duration:

4 days

### Content:

- Trading Networks concept overview
- Trading partners
- Partner on-boarding
- Document types
- Processing rules
- Monitoring Trading Networks
- Trading Networks and business processes
- Gateway services
- Delivery and queues
- Custom options
- Trading Networks security
- Trading Networks performance
- Deployment
- Trading Networks properties and services

## webMethods Business Rules

### Description:

This course introduces webMethods Business Rules within the Software AG webMethods suite. Participants learn through extensive hands-on exercises how to implement various business rules to be invoked from webMethods BPMS processes and user tasks, but also starting and affecting business processes. The students will first create, validate and test webMethods Business Rules standalone in Designer, then—after successful deployment—invoke rules from webMethods BPMS. Moreover, they will use the Rule Management Console running in My webMethods for instant rule modifications. At the end of this course, students will be able to create, test, deploy and execute webMethods Business Rules in conjunction with webMethods BPMS processes, User Tasks and IS services. This course is an intensive workshop; the core of the course is a set of representative examples that illustrate the features of webMethods Business Rules. Exercises are designed to prepare students for self-sufficiency.

### Audience:

Developers, architects

### Topics:

At the end of this course, you will be able to:

- Rapidly build webMethods Business Rules projects using Software AG Designer
- Create, test, validate and deploy Business Rules projects
- Invoke Business Rules from webMethods BPMS processes
- Start processes from Business Rules actions
- Queue user tasks from Business Rules actions
- Control (cancel, join, suspend, resume) running processes from Business Rules actions
- Work with rule maintenance applications
- Create and use rule metadata in a CentraSite registry/repository
- Invoke decision entities from user tasks and IS services

### Prerequisites:

- Being familiar with general BPM concepts, e.g., as provided in Software AG's FREE book "BPM Basics for Dummies"
- 1 to 2 years of experience in software development, preferably Java
- Familiarity with the Eclipse IDE
- Attending the webMethods Integration Workshop and the webMethods BPM for Developers class is strongly recommended

### Duration:

4 days

### Content:

- Introducing webMethods Business Rules
- Creating simple decision tables
- Rule sets
- Rule execution, validation and inference
- Build-in functions
- Internal event rules
- Service and new data actions
- Deployment to Integration Server and My webMethods Server
- Working with the Rule Management Console (RMC)
- BPM invokes business rules
- Business rule interacts with BPM - process actions
- External event rules and event models
- Business rules invoked from BPM user tasks and other resources
- Business rule metadata
- Logging

## webMethods ActiveTransfer Workshop

### Description:

This course introduces webMethods ActiveTransfer for Managed File Transfer (MFT). MFT is a process that ensures protected internal and external data transfers in a centralized system for B2B, Application to Application (A2A), cloud-based or ad-hoc environments. Collaboration is the most common reason for transferring files. With a greater reliance on partners, companies are exchanging more files with partners every year. Participants will learn through lessons and intensive hands-on exercises how to create ActiveTransfer servers and set up users to do secure file transfers using various protocols. Students will also prepare scheduled and/or event-driven transfers and post-processing actions and alerts. They will also learn how to use advanced features, such as throttling, acceleration and IP security. Moreover, participants will configure a specialized ActiveTransfer Gateway server using the gateway feature to enable internal ActiveTransfer server to process requests from external clients using a variety of protocols. Additionally, participants will monitor, audit and analyze file transfers.

### Audience:

- Anybody dealing with administration and control of file transfers
- webMethods Trading Networks administrators
- Integration Server developers with Trading Networks responsibility

### Topics:

At the end of this course, you will be able to:

- Use ActiveTransfer to do secure managed file transfers
- Control and manage inbound and outbound file transfers
- Transfer files using HTTP, HTTPS, FTP, FTPS, SFTP, SCP and WebDAV
- Create and control ActiveTransfer servers
- Manage ActiveTransfer users
- Prepare post-processing actions and alerts
- Do scheduled and event-driven transfers
- Set up ports with-in ActiveTransfer gateway
- Implement security features for ActiveTransfer file transfers
- Use advanced file transfer features, such as acceleration of transfers
- Monitor file transfers
- Use MWS for centralized administration and monitoring
- Perform analytics using dashboarding
- Use the Web client for file transfers
- Find important information in the log file and do troubleshooting
- Understand high-availability configurations

### Prerequisites

- Understanding file transfer protocols

### Duration:

2 days

### Content:

- ActiveTransfer overview
- Configuring and managing ActiveTransfer servers
- Managing ActiveTransfer users
- Managing events - post-processing actions and alerting
- Scheduled and event-driven transfers
- Centralized monitoring
- Dashboarding and analytics
- ActiveTransfer gateway
- Securing transfers
- Advanced features, such as acceleration and throttling
- Monitoring and logging



# Learning Path

## WEBMETHODS Certification

**WEBMETHODS**  
Certified BPM  
Developer

webMethods  
Integration  
Workshop  
4 days

webMethods BPM  
for  
Developers  
5 days

webMethods  
Optimize for  
Process  
2 days

webMethods  
Certified BPM  
Developer  
3 hours

**WEBMETHODS**  
Certified ESB  
Developer

webMethods  
Integration  
Workshop  
4 days

webMethods  
Advanced  
Integration  
Workshop  
4 days

webMethods  
Certified ESB  
Developer  
3 hours

**WEBMETHODS**  
Certified CAF  
Developer

webMethods  
CAF UI and Portal  
Development  
4 days

webMethods  
Certified CAF  
Developer  
3 hours

**WEBMETHODS**  
Certified AgileApps  
Consultant

Building Applications  
in the webMethods  
AgileApps Cloud  
2 days

webMethods  
Certified AgileApps  
Consultant  
3 hours

**WEBMETHODS**  
Certified ESB  
Administrator

webMethods ESB  
Administration  
Workshop  
5 days

webMethods  
Certified ESB  
Administrator  
3 hours

**WEBMETHODS**

**Legend:**

- = Certification
- = Classroom training

Go back!

## WEBMETHODS Certifications

### webMethods Certified BPM Developer

#### Description:

This proctored examination is designed for the experienced webMethods BPM developer. It consists of 50 multiple choice questions across a range of BPM and Business Activity Monitoring (BAM) development topics. Examinees are allowed 180 minutes to complete the exam.

#### Audience:

BPM developers, development administrators, IT architects, system administrators, system programmers, systems analysts, Web (service) developers

#### Topics:

The test is designed to test for skills of how to implement, execute and monitor technical business processes by using webMethods BPMS in an organization.

#### Prerequisites:

The scope of the test is webMethods BPMS. The test assumes a general understanding of Java, XML, Web services and internet technologies, as well as specialized knowledge of BPM/BAM development.

While the suggested resources can assist you in preparing for the test, it is imperative that you have hands-on experience developing and/or maintaining BPM projects since this is a practice-oriented test.

No course completion is required to sit for this exam, but prospective examinees are strongly recommended to have completed the following course(s):

- webMethods Integration Workshop
- webMethods BPM for Developers
- webMethods Optimize for Process
- A solid knowledge in using webMethods BPMS and practical experience

#### Duration:

3 hours

#### Language:

English

#### Test Topics:

- General webMethods and BPM topics: architecture, suite and ARIS interoperability, setup, etc.
- Common Software AG Designer: perspectives, views, editors, etc.
- BPM processes: development, supported BPMN notation and syntax, process execution, debugging, build and upload, process logging, versioning, import/export, data mapping, etc.
- BPM user tasks: user task development, usage of the task editor, MWS deployment, user task execution and monitoring, user task type administration, etc.
- Integration Server and Broker: supplementing IS services, important packages, publishing documents, BPM implementation layer, process engine administration
- My webMethods Server: MWS Monitor for processes and user tasks, task engine administration, server environments, etc.
- Metadata: Handling of local metadata, shared process and task metadata, CentraSite Active interoperability
- webMethods business rules: simple business rules, rule deployment, rules management console in My webMethods
- Blaze rules: Simple business rules, rule deployment, rules maintenance applications in My webMethods
- Process simulation: creating and running simulations, simulation re-sources, embedded optimization
- Business process activity monitoring using webMethods Optimize for Process
- Optimize components and startup, events, KPIs and dimensions, rules and alerts, process monitoring and improvement, prediction

## webMethods Certified ESB Developer

### Description:

The certification test is practice-oriented and simulates situations typical for a webMethods ESB developer. The webMethods Certified ESB Developer certification is a web-based multiple-choice test. This proctored examination is designed for the experienced webMethods ESB developer. It consists of about 60 multiple choice questions, across a range of ESB development topics. To pass the test and receive certification, you must score a 66% on the test within 180 minutes.

### Audience:

experienced webMethods ESB developer

### Topics:

The test assumes a general understanding of Java, Web services and Internet technologies, as well as specialized knowledge of ESB development.

The test is designed to test for skills of how to develop integration solutions in your organization using the webMethods ESB.

### Prerequisites:

Successful completion of the webMethods Certified ESB Developer test requires a solid knowledge in using webMethods ESB as acquired through Software AG training courses plus practical hands-on experience.

While the suggested resources can assist you in preparing for the test, it is imperative that you have hands-on experience on real webMethods ESB development projects.

### Product Documentation:

<http://communities.softwareag.com> - This site contains a repository of code samples, articles, tips & tricks and tutorials. <http://documentation.softwareag.com> - This site contains the webMethods product documentation. Focus on webMethods 9.9 documents related to ESB development. (E.g. Service Development Help, Web Services Developers Guide, Publish-Subscribe Developer's Guide, etc....)

No course completion is required to sit for this exam, but prospective examinees are strongly recommended to have completed the courses:

- webMethods Integration Workshop
- webMethods Advanced Integration Workshop

### Duration:

3 hours

### Language:

English

### Test Topics:

Individuals who successfully complete the webMethods Certified ESB Developer test will have demonstrated knowledge and skills associated with the following subject areas:

- **General Integration Topics**  
Architecture, Infrastructure, Setup, Standards, etc.
- **Service Development**  
Flow Services, Java Services, Pipeline, Flat Files, Debugging, Logging/Auditing
- **Messaging**  
Messaging patterns (publish/subscribe, point to point), Topics, Queues, Channels, webMethods Messaging, JMS
- **Development Toolset**  
Designer, webMethods Monitor
- **Integration Objects**  
Document Types, Services, Specifications, WEB Services, Triggers
- **Adapters**  
Architecture, Adapter Services, Adapter notification

## webMethods Certified ESB Administrator

### Description:

The certification test is practice-oriented and simulates situations typical for a webMethods ESB administrator. The webMethods Certified ESB Administrator certification is a web-based multiple-choice test. This proctored examination is designed for the experienced webMethods ESB administrator. It consists of about 60 multiple choice questions, across a range of ESB development topics. To pass the test and receive certification, you must score a 66% on the test within 180 minutes.

### Audience:

experienced webMethods ESB administrator

### Topics:

The test assumes a general understanding of Web services and Internet technologies, as well as specialized knowledge of ESB administration.

The test is designed to test for skills of how to administer the webMethods ESB in an organization. Administration involves: installing, configure, managing, monitoring and tuning.

### Prerequisites:

Successful completion of the webMethods Certified ESB Administrator test requires a solid knowledge in using webMethods ESB as acquired through Software AG training courses plus practical hands-on experience.

While the suggested resources can assist you in preparing for the test, it is imperative that you have hands-on experience on administering webMethods ESB products.

### Product Documentation:

<http://communities.softwareag.com> - This site contains a repository of code samples, articles, tips & tricks and tutorials. <http://documentation.softwareag.com> - This site contains the webMethods product documentation. Focus on webMethods 9.9 documents related to ESB administration. (E.g. Integration Server Administrator's Guide, Audit Logging Guide, Monitor User's Guide, etc....)

No course completion is required to sit for this exam, but prospective examinees are strongly recommended to have completed the course:

- webMethods ESB Administration Workshop

### Duration:

3 hours

### Language:

English

### Test Topics:

Individuals who successfully complete the webMethods Certified ESB Administrator test will have demonstrated knowledge and skills associated with the following subject areas:

- webMethods Overview
  - Components of the ESB
  - What are the administration and monitoring tools
  - Role of the webMethods Database
  - Role of Command Central
- Installing the ESB
  - Use of installer – Empower vs. Image
  - Installer command line usage
  - Use of Database Component Configurator (options)
  - How to view installation history
- ESB Startup and Shutdown
  - Start and Stop the webMethods ESB components
  - Quiesce mode
- Update Manager
  - Installation
  - Scripting and using images
- Basic Configuration
  - Configure Integration Server using Administrator Interface
  - Configure Integration Server using Command Central
  - Configure Integration Server to Connect to Universal Messaging
- IS Packages
- IS Instance Management
  - Create and Delete new instances
  - Package deployment and configuration
  - Operation of instances including starting, stopping, and logging
- Logging and Auditing
  - Integration Server logging
  - Configure for Database logging
  - Integration Server Auditing

## webMethods Certified CAF Developer

- Securing the Infrastructure
  - The four Pillars of Security: Authentication, Authorization, Confidentiality and Integrity
  - User and Group Management
  - External Authentication Providers
  - Access Control Lists
  - Integration Server Ports
  - SFTP
- Universal Messaging (UM) – Architecture
  - Architecture – realm servers
  - Architecture – clustering
  - Use on ninstancemanager
  - Use of Enterprise Manager
- Managing webMethods Messaging and JMS Triggers
  - Configuration of Messaging Engine (UM or Broker)
  - Configuration of JMS components (triggers, JNDI, connections, etc)
  - Administration of messaging components (enable, disable, etc)
- Performance Tuning
  - Administrator Performance Tuning
  - Developer Support
- Troubleshooting Integration Server
  - Review log files
  - Review statistics
- Day to Day Operations
  - Archiving
  - Other Day to Day Operations (Notifications, Directory Cleanups, Scheduler, Security Checks)
- Version Control (Configuration and architecture of version control)
- Asset Build Environment
  - Repository-based Development / Deployment Process (high level)
  - Asset Build Environment (steps)
  - Build Properties
- Application Staging and Deployment
  - Deployer Setup (Pointing at environment or ABE, Aliases, creating builds, checking dependencies)
  - Deployer Execution (Command Scripts, Rollback, Checkpoints, Mapping)
- Integration Server Clustering with Terracotta Server Array
  - High-level features of Terracotta
  - The role of Terracotta Server Array in an Integration Server cluster
  - Enabling clustering in Integration Server

### Description:

This proctored examination is designed for the experienced webMethods CAF developer. It consists of 50 multiple choice questions across a range of CAF development topics. Examinees are allowed 180 minutes to complete the exam.

### Audience:

Application developers, business user, data dictionary administrators, database administrators, development administrators, IT architects, project managers, system administrators, system programmers, systems analysts, Web (service) developers

### Topics:

The test is designed to test for skills of how to implement webMethods CAF applications in an organization.

### Prerequisites:

The scope of the test is webMethods CAF. The test assumes a general understanding of Java, Web services and Internet technologies, as well as specialized knowledge of CAF development.

No course completion is required to sit for this exam, but prospective examinees are strongly recommended to have completed the following course(s):

- webMethods CAF UI and portlet development
- A solid knowledge in using webMethods CAF
- It is imperative that you have hands-on experience developing and/or maintaining CAF projects since this is a practice-oriented test

### Duration:

3 hours

### Language:

English

### Test Topics:

- General CAF topics: architecture, environment, setup, standards, etc.
- Designer GUI: perspectives, views, editors, etc.
- Managed beans
- Content providers
- General portlet development: controls, scripts, converters, validators, actions, etc.
- AJAX (Asynchronous JavaScript and XML)
- Security
- Page navigation and navigation rules
- Using Cascading Style Sheets (CSS)
- Web application development & deployment
- My webMethods server page development
- My webMethods server administration
- CAF APIs: JSFEL / CAF.Model API
- Internationalization
- CAF events and notifications

Go back!

## webMethods Certified AgileApps Consultant

### Description:

This proctored examination is designed for the experienced AgileApps Cloud user. It consists of about 40 multiple choice questions, which cover a range of AgileApps Cloud topics. Examinees are allowed 180 minutes to complete the exam.

### Audience:

Experienced AgileApps Cloud user

### Topics:

The test is designed to check for skills and understanding of developing and using the webMethods AgileApps Cloud platform.

### Prerequisites:

The test assumes a general understanding of webMethods AgileApps. It is designed to check for skills and understanding of developing and using the webMethods AgileApps Cloud platform.

No course completion is required to sit for this exam, but prospective examinees are strongly recommended to have completed the following course(s):

- Building Applications in the webMethods AgileApps Cloud
- A solid knowledge in using AgileApps
- It is imperative that you have hands-on experience with AgileApps projects since this is

### Duration:

3 hours

### Language:

English

### Test Topics:

Individuals who successfully complete the webMethods Certified AgileApps Consultant test will have demonstrated knowledge and skills associated with the following subject areas:

- End User
  - Agent Portal
  - Cases
  - Service Portal
- Application Builder
  - Applications
  - Objects
  - Forms
  - Business Rules
  - Processes
- System Administrator
  - Architecture
  - Access
  - Data Management and Monitoring
  - Application Branding

**PROCESS PERFORMANCE MANAGER**  
**COURSES**

## PROCESS PERFORMANCE MANAGER

- Automatically discover end-to-end processes across different systems
- Monitor and analyze process performance and structure
- Identify and roll out best practices and optimization measures

What can't be measured can't be optimized. So measure, then optimize with Software AG Process Performance Manager (PPM). Use Software AG PPM to assess process speed, cost, quality and quantity automatically and to identify optimization opportunities. See results on a [MashZone](#) dashboard.

**Used for:**

process monitoring; process mining; process benchmarking; KPI monitoring; data analytics

Learn more about all the training options available for PPM



# Learning Path

## Process Performance Manager



PPM

### Legend:

 = Classroom training

Go back!

## PPM Courses

### Analyzing Processes with PPM

**Description:**

Learn how to analyze processes with Process Performance Manager (PPM).

PPM is a software solution for measuring, analyzing and visualizing live business processes. Performance dashboards created with MashZone provide a unified view on processes, accompanying performance measures and achievement of business objectives. Performance dashboards provide a coherent starting point for various in-depth impact analyses of process performance.

For example, process mining makes it possible to automatically identify factors that influence measures of interest. Furthermore, monitoring approaches with embedded alert mechanisms pay the process owners attention to processes not fulfilling objectives. PPM comes up with process chains and communication graphs revealing operational and organizational structure. By measuring indicators like delivery performance and drilling down to underlying processes, PPM provides an objective decision-making at both strategic and operational level and paves the way for continuous process improvement from the business perspective. According to the principle, nothing can be improved, unless it has been measured! Intuitive user interfaces support simple and flexible configuration of appealing charts and tables showing measure values etc. Live analytics supports easy-to-use filter bars, multi panel analyses and interactive filtering. This training teaches you the basic principles and the procedure model of process performance management. You learn how to use predefined performance dashboards in MashZone and reports and how to configure your first own analyses. By means of a running example (sales processes), you experience a complete root-cause analysis. Starting from measure evaluation (process cycle time, delivery performance etc.), you proceed with identifying influencing factors (sales organization, customer, material etc.) for interesting measures, up to in-depth views on processes in the course of their execution (feedback loops, execution paths complexity and probability).

**Audience:**

Business analysts

**Prerequisites:**

None

**Extensions:**

The following courses are proposed for continuing education:

- Advanced Process Analysis with PPM
- Advanced Reporting with PPM

**Duration:**

1 day

**Content:**

- Process Performance Management - Overview: process intelligence and performance management, process warehouse, running example 'United Motors Group,' quick start PPM
- PPM - Introduction: graphical user interface, navigation, analysis elements (measure, dimension, filter, display settings), analysis development, favorites and clipboard, help tools
- Performance Analysis & Optimization Process:
  - "What?" - measure evaluation and assessment (use of enterprise performance dashboards, alerting with easy mining)
  - "How?" - identifying influencing factors (use of management views and reporting)
  - "Why and who?" - identifying the process structure (process instance list)
- Summary, outlook, Q&A

## Advanced Process Analysis with PPM

### Description:

Utilize the advanced features of PPM to analyze your processes. PPM is a software solution for measuring, analyzing and visualizing live business processes. Performance dashboards created with MashZone provide a unified view on processes, accompanying performance measures and achievement of business objectives. Performance dashboards provide a coherent starting point for various in-depth impact analyses of process performance. For example, process mining makes it possible to automatically identify factors that influence measures of interest. Furthermore, monitoring approaches with embedded alert mechanisms pay the process owners attention to processes not fulfilling objectives. PPM comes up with process chains and communication graphs revealing operational and organizational structure. By measuring indicators like delivery performance and drilling down to underlying processes, PPM provides an objective decision-making at both strategic and operational level and paves the way for continuous process improvement from the business perspective. According to the principle, nothing can be improved, unless it has been measured! Intuitive user interfaces support simple and flexible configuration of appealing charts and tables showing measure values, etc. Live analytics supports easy to use filter bars, multi-panel analyses and interactive filtering. This training briefly introduces basic knowledge acquired from introductory PPM training. Based on this, you will learn more advanced process analysis techniques, among others process instance controlling, process mining, ABC analysis and organizational analysis. Furthermore, you become familiar with administration tasks (user management). By means of a running example (sales processes), you experience a complete root-cause analysis, starting from measure evaluation, you proceed with identifying factors that impact process efficiency, up to an in-depth view on organizational communication patterns. You will learn how advanced process analysis techniques can be used to drill down measures (delivery performance, etc.) to interesting factors in terms of dimensions (sales organization, customer, material, etc.) and communication patterns (who does what?, who delegates to whom?).

### Audience:

Advanced business analysts

### Prerequisites:

The following courses are required as prerequisites:

- Analyzing Processes with PPM

Extensions:

The following courses are proposed for continuing education:

- Advanced Reporting with PPM

### Duration:

1 day

### Content:

- Briefing on PPM
- Performance Analysis & Optimization Process:
  - "What?" - measure evaluation (management of planned values and alarm values, instance controlling, user-defined measures (online))
  - "How?" - identifying influencing factors (top-flop evaluation, process mining, ABC analysis, data analytics)
  - "Why and who?" - reveal organization structure (introduction to organizational analysis, communication analysis with communication graph, activity analysis with relation explorer)
  - PPM administration (user management, access privileges, factory calendar, favorite management)
- Summary, outlook, Q&A

## Advanced Reporting with PPM

### Description:

Prepare appealing dashboards and reports.

PPM is a software solution for measuring, analyzing and visualizing live business processes. Interactive dashboards created with MashZone provide a unified view on processes, accompanying performance measures and achievement of business objectives. Dashboards indicate weak points and provide a coherent starting point for various in-depth impact analyses of process performance. This training teaches how to publish business-relevant data available in PPM or other external sources in dashboards. Furthermore the training covers the use of an report-editor for creating and emailing performance reports such as (PDF, Microsoft® Excel®).

### Audience:

Advanced business analysts

### Topics:

At the end of this course, you will be able to:

- Transform business-relevant data quickly and easily into interactive dashboards
- Create your own custom dashboard using a simple drag-and-drop interface
- Drill down to detailed information via the interactive visualization options to display relationships between different data
- Combine business-relevant data into documents and distribute and email documents in your organization

### Prerequisites:

The following courses are required as prerequisites:

- Analyzing Processes with PPM
- Advanced Process Analysis with PPM

### Duration:

1 day

### Content:

- Briefing on PPM
- Introduction to the creation of dashboards using MashZone
- Reporting using PPM Report Editor
- Summary, outlook, Q&A

## PPM Customizing using Customizing Toolkit (CTK)

### Description:

During this course you will learn about the components of a typical PPM system architecture. Also, how to set-up a PPM infrastructure for your customization. Creating "process warehouses" is covered as well as data extraction from 3rd party systems via CSV, JDBC or SAP extractor. Finally PPM-specific process consolidation and analysis is covered.

### Audience:

Advanced Business Analysts

### Prerequisites:

- PPM skills as provided in the course "Analyzing Processes with PPM"
- Attending the training course "Advanced Process Analysis with PPM" is recommended
- Attending the training course "Advanced Reporting with PPM" is recommended

### Duration:

4 days

### Content:

- PPM Architecture and Installation
- PPM Customizing in a nutshell
- PPM Requirements Engineering
- CTK Navigation and Settings
- Data Sources - Introduction and Concept
- CSV-2-PPM Extractor
- JDBC-2-PPM Extractor
- SAP-2-PPM Extractor
- Data Import and Process Consolidation
- Process Architecture
- Measures and Dimensions
- Organizational Analysis

### Methods:



- Lecture, presentation
- Group discussion
- Hands-on workshop

# Learning Path

## PPM 9.8 Certified Expert



### Legend:

-  = Certification
-  = Classroom training

# PPM Certification

## Process Performance Manager Certification

### Audience:

Experienced PPM user

### Prerequisites:

The test assumes a general understanding of Process Performance Management. The questions cover the following products:

- PPM (Process Performance Manager)

This test is designed to check for skills and understanding of using and setting-up a PPM environment.

### Test Structure:

The certification test is practice-oriented and simulates situations typical for process performance management. It tests your PPM knowledge in all areas that are important for usage, customization and management of your PPM environment.

The PPM Certified Expert certification is done web-based as multiple-choice test. This proctored examination is designed for the experienced PPM user. It consists of about 50 multiple choice questions, which cover a range of PPM analysis, architecture, planning and customization topics. To pass the test and receive certification, you must score a 66% on the test within 180 minutes.

### Preparation Guidelines:

Successful completion of the PPM Certified Expert test requires a solid knowledge in using PPM as can be acquired through Software AG training courses plus practical experience.

While the suggested resources can assist you in preparing for the test, it is imperative that you have hands-on experience in analyzing and evaluating processes with PPM. You should have hands-on experience about customizing PPM to your needs, too.

For topics covered in the test, please review the PPM documentation delivered with its installation files.

No course completion is required to sit for this exam, but prospective examinees are strongly recommended to have completed the courses:

- Analyzing Processes with PPM
- Advanced Process Analysis with PPM
- Advanced Reporting with PPM
- PPM Customizing using Customizing Toolkit (CTK)

### Duration:

3 hours

### Test Topics:

Individuals who successfully complete the PPM Certified Expert test will have demonstrated knowledge and skills associated with the following subject areas:

- **Analysis in PPM**  
analysis topics
- **Infrastructure**  
architecture
- **Planning**  
administration, planning, usage
- **Positioning**  
usage
- **Technical Customizing**  
administration, data extraction, hierarchies, measures & dimensions, merges/typification, planning, XML-import

**SERVICE-ORIENTED ARCHITECTURE**  
COURSES

## SOA & API MANAGEMENT

### Quickly assemble applications and increase asset re-use

Capture business capabilities as re-usable services. Rapidly assemble new applications and service-enable existing ones. Automate cross-domain processes and integrate systems. Do all of this with our Service-Oriented Architecture (SOA) and SOA governance technology. We also can guide you on how to plan and implement SOA programs.

SOA is used for multi-channel integration, enabling process automation and building new applications quickly. Use SOA from Software AG to:

- Build new applications faster without jeopardizing quality
- Quickly automate cross-domain business processes
- Govern the life cycle of services and associated policies

Learn more about all the training options available for SOA and API management.



# Learning Path

## SOA Governance (CentraSite, Mediator, Insight, API)

SOA Governance  
with CentraSite  
ActiveSOA  
3 days

webMethods  
Insight  
4 days

SOA Runtime  
Governance with  
webMethods  
Mediator  
2 days

API Management  
with webMethods  
Platform  
3 days

SOA

## SOA Courses

### SOA Governance with CentraSite ActiveSOA

**Description:**

CentraSite ActiveSOA is a powerful, open and standards-based SOA registry and repository that allows customers to manage and govern their SOA environment. In this course, attendees will learn how to use CentraSite functionality to implement SOA governance in their organization.

**Audience:**

SOA architects, SOA librarians and SOA developers

**Prerequisites:**

- Sound knowledge of information processing
- Understanding of Web services and SOA concepts
- Programming concepts, e.g., Java
- For advanced chapters, XML, XML Schema and XQuery knowledge is helpful

**Extensions:**

The following courses are proposed for continuing education:

- SOA Runtime Governance with webMethods Mediator
- API Management with webMethods Platform
- webMethods CentraSite Certified SOA Governance Professional (CERT - SOA)

**Duration:**

3 days

**Content:**

- SOA governance concepts
- Organization model (organizations, groups, users, roles)
- SOA command center (browse, search, create assets, import assets)
- Asset types (create custom asset types)
- Active life cycles (life-cycle stages and states, state transitions)
- Active policies (policy scope, policy action templates: approval)
- Runtime governance (consumer-provider relationship)
- Consuming assets (consumer registration, asset navigator)
- Eclipse™ support
- Reporting (create custom report templates)
- webMethods suite integration

### SOA Runtime Governance with webMethods Mediator

**Description:**

webMethods Mediator is a service intermediary that enforces the runtime policies you create in CentraSite ActiveSOA. Virtualizing shared services makes it easy to change your SOA. Combined with CentraSite ActiveSOA, Mediator provides end-to-end governance of all services from development to runtime. Mediator supports an organization to easily grow and evolve shared services, service consumers and providers. Processing steps allow protocols, message formats or service locations—without impacting consumer-provider relationships—to be changed to adapt rapidly. The same service can even be made available to new applications over a different protocol or security standard—without costly recoding. In this course, attendees will learn how to use Mediator functionality to implement SOA runtime governance in their organization.

**Audience:**

SOA architects, SOA librarians and SOA developers

**Prerequisites:**

- Understanding of Web services and SOA concepts
- CentraSite ActiveSOA skills as acquired in the course SOA governance with CentraSite ActiveSOA
- Programming concepts, e.g., Java
- For advanced chapters, webMethods Integration Server knowledge is helpful

**Duration:**

2 days

**Content:**

- CentraSite ActiveSOA concepts recap
- Runtime governance
  - Mediator architecture and configuration
  - Target-type
  - Target
- Virtual services
  - Virtualization phases
  - Create endpoint alias
  - Configure message flow
  - Publish virtual API
- Runtime policies
  - Request
  - Logging
  - Security
  - Routing
  - Throttling
  - Monitoring
  - Response
- Consumption of Virtual APIs (Consumer Provider Relationship)

## webMethods Insight

**Description:**

This course teaches how to monitor the service activity of an SOA. Within the course the student will learn how to create runtime policies that map to service level agreements, all of which help administrators and stakeholders of the enterprise SOA to achieve success in deploying their business use cases. The students will learn how to use message fields of service messages to track and report service activity. The course describes how to use dimensions for monitoring the service activity and how to configure stabilizers for custom behavior of your service network at runtime. During the training the students will describe a business process in Insight and monitor the service activity of this business process.

**Audience:**

SOA developers, SOA architects

**Topics:**

At the end of this course, you will be able to:

- Understand runtime management and governance concepts
- Install and configure Insight products
- Monitor SOA service traffic
- Understand and demonstrate Insight features, including monitoring, policy, root cause analysis, business reporting
- Identify and troubleshoot common problems

**Prerequisites:**

- Understanding of SOAs
- Manage components of a distributed application
- Manage server components in Windows
- Start, stop and configure a Java-based application server
- Describe and have experience with common messaging protocols used by distributed applications
- Describe and have experience with applications that consume and provide services
- Programming concepts, e.g., Java

**Duration:**

4 days

**Content:**

- webMethods Insight concepts
- Installing webMethods Insight
- Configure a service network
- Monitoring your service network
- Managing policies and auditing
- Watchdogs
- Using message fields and flow fields
- Using dimensions
- Creating and monitoring business processes
- Stabilizers
- Integration of Insight with other webMethods products
- Common problems and troubleshooting
- Configuring and managing agents for third-party SOA platforms

## API Management with webMethods Platform

**Description:**

APIs are the published interface to a company's services. Use cases for APIs include the provision of mobile, Web and cloud applications and enabling third-party developers to create new apps and mashups. The design, implementation, publication, operation maintenance and retirements of APIs need API management. This training helps participants to define the companies APIs and set up runtime policies such as access, authentication, monitoring, logging and making the APIs available to internal and external. Software AG's API management platform is modular and designed to support all API management initiatives. Using CentraSite, participants create APIs from their services and document them. APIs are virtualized with webMethods Mediator for loose coupling. To expose the APIs to partners and third-party developers, students will add an API portal, which provides good documentation, code samples, test capabilities and collaborative features. The APIs will be published there. All capabilities in webMethods API-Portal are based on their CentraSite API definition. For runtime mediation and collection of metrics for analytics, participants add monitoring options and security-related necessities, such as enforcement of API keys and SLAs. Students will use the self-registration feature of API-Portal for access to the APIs. In this course, students will learn how to use the webMethods platform with CentraSite, Mediator and API-Portal functionality to implement API management in their organization.

**Objectives:**

At the end of this course, you will be able to:

- Define and create APIs in CentraSite
- Create virtual APIs
- Use API-Portal as provider
- Use API-Portal as consumer
- Use API-Portal as administrator
- Customize API-Portal

**Audience:**

Software architects, developers

**Prerequisites:**

- Understanding of services, SOA and REST APIs is helpful
- CentraSite Active SOA and Mediator knowledge is helpful

**Duration:**

3 days

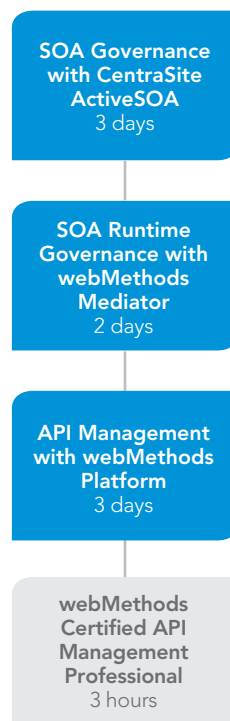
**Content:**

- API and API management introduction
- Definition and documentation of APIs
- API runtime governance
- API-Portal administration
- API-Portal as provider
- API-Portal as consumer
- Customization of API-Portal

# Learning Path



## WEBMETHODS

### Certified API Management Professional



SOA

#### Legend:

-  = Certification
-  = Classroom training

Go back!

## SOA – Certification

### webMethods Certified API Management Professional

#### Audience:

Experienced API Management user

#### Prerequisites:

The test assumes a general understanding of how to manage the entire process of planning, designing and exposing APIs to internal and external developers, partners and other consumers. The questions cover the following products:

- CentraSite
- webMethods Mediator
- API Management with webMethods Platform

This test is designed to check for skills and understanding of how to manage the entire life cycle of APIs and how to expose APIs to internal and external consumers.

#### Test structure:

The certification test is practice-oriented and simulates situations typical for API Management projects. It tests your CentraSite, Mediator and API Management knowledge in all areas that are important for managing and governing your API Management projects and for achieving control and transparency across all API related resources.

The webMethods Certified API Management Professional certification is done web-based as multiple-choice test. This proctored examination is designed for the experienced API Management user. It consists of about 50 multiple choice questions, which cover a range of CentraSite, webMethods Mediator and API Portal topics. To pass the test and receive certification, you must score a 66% on the test within 180 minutes.

#### Preparation Guidelines:

Successful completion of the webMethods Certified API Management Professional test requires a solid knowledge in CentraSite, Mediator and API-Portal, as can be acquired through Software AG training courses plus practical experience.

While the suggested resources can assist you in preparing for the test, it is imperative that you have hands-on experience in developing and/or maintaining API Management projects since this is a practice-oriented test.

For topics covered in the test, please review the webMethods Product Suite 9.9 product- and task related documentation.

No course completion is required to sit for this exam, but prospective examinees are strongly recommended to have completed the courses:

- SOA Governance with CentraSite
- SOA Runtime Governance with webMethods Mediator
- API Management with webMethods Platform

#### Duration:

3 hours

#### Test Topics:

Individuals who successfully complete the webMethods Certified API Management Professional test will have demonstrated knowledge and skills associated with the following subject areas:

- Architecture
  - Architecture, suite interoperability, setup, etc.
- SOA Governance Concepts
  - SOA management and governance objectives
- Organization Model
  - CentraSite Administrator Role, Organization Structure, Users, Groups, Roles
- Asset Management in Business UI
  - Search and Browse, Asset Navigator, Import/Export
- Design/Change Time Policies
  - Concept, Policy Scope, Policy Actions
- Lifecycle Management
  - Concept, Stages and States, Versioning
- Asset Type Management
  - Concepts, Attributes and Profiles
- Taxonomies
  - Concept, Search and Browse using Taxonomies
- Eclipse
  - Capacities
- Reporting
  - Predefined Reports, Custom Reports
- Federation
  - Concept
- Virtual Services
  - Concept, Service Deployment, Message Flow Configuration
- Runtime Policies
  - Concept, Policy Actions
- Consumer Registration
  - Concept, Registration Process, Consumer Authorization Process
- API Portal Concepts
- **Concept, Features**
  - Configuration of API-Portal
    - Approval Workflow, API Portal properties
  - API Portal Management
- **User, Roles, Communities in API Portal,**
  - Asset Management in API Portal
    - Publishing to API Portal, API properties, API access tokens

**WEBMETHODS ONEDATA**  
**COURSES**

## WEBMETHODS OneData

### Get accurate, reliable master data your business can count on

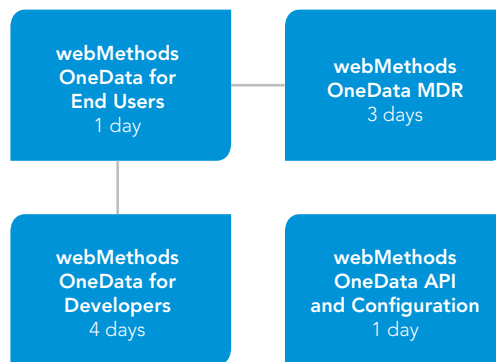
Master data exists in many applications and systems throughout an enterprise. webMethods OneData imports data from these varied systems and reconciles and cleanses it to eliminate redundancy and errors. The master data is then organized and governed through automated workflow. Change management capabilities ensure approval processes are in place to maintain "one version of truth" for the data. Finally, OneData synchronizes and deploys the master data, ensuring consistent, accurate, reliable data is moving through your business processes and applications.

Learn more about all the training options available for webMethods OneData for Master Data Management (MDM).



# Learning Path

## WEBMETHODS OneData



OneData

## WEBMETHODS OneData Courses

### webMethods OneData for End Users

**Description:**

This course covers the basics of webMethods OneData from an end-user perspective, with in-depth coverage on browsing and searching data, reporting, and maintaining data values. It also includes the basics of change management and workflow. The course is designed for users who expect to be using OneData as an end user; managers or supervisors of regular OneData users, and those who will function as workflow or change request approvers.

**Audience:**

Business users, project managers, system administrators

**Topics:**

At the end of this course, you will be able to:

- Understand the concept of a data object and the relationship to a database table
- Understand different type of hierarchies and constructs
- Understand the concept of work versus release area
- Navigate through folders
- Use preferences and favorites
- Navigate using the graphical model viewer
- Search for data objects and values, and browse data
- Understand basic and advanced filtering and sorting options
- Perform data maintenance tasks: insert, copy, update, delete, restore, purge, bulk update, search/replace
- Maintain data in hierarchical objects
- Understand the various object level personalization parameters and their effects on the user interface
- Use reporting and delivery options
- Build and run reports using both the report-builder wizard
- Understand OneData anywhere
- Request changes, and understand the relationship between data changes and change requests
- Understand the concepts of workflow items and transactions, and how to approve/reject a workflow item; staging versus production (as-is setup)

**Prerequisites:**

Basic computer and application usage skills

**Extensions:**

The following courses are proposed for continuing education:

- webMethods OneData for Developers

**Duration:**

1 day

**Content:**

- webMethods OneData overview
- Presentation layer overview and login
- Browsing and filtering
- Data management
- Reporting
- Workflow
- Collaboration
- Hands-on exercises

## webMethods OneData for Developers

### Description:

This course provides the knowledge needed for someone to implement and configure a webMethods OneData solution. It covers the basics of object creation as well as basic and advanced object configuration. In addition, it also covers setup of workflow rules and user authorizations and authentication. The course is designed for OneData developers responsible for configuring the OneData application in terms of model, rules, users, authorization roles, data interchange, workflow, hooks and process flow.

### Audience:

Advanced end users, webMethods OneData application developers

### Topics:

At the end of this course, you will be able to:

- Create basic data objects and configure relationships among objects; update schema and synchronize structure
- Navigate through folders, create and modify folders, and assign objects to folders
- Create an advanced model configuration
- Create conceptual objects and hierarchies: recursive, network re-ursive and leveled
- Understand advanced configuration topics: temporal objects, time-bound objects, super-type/sub-type, secondary axis on hierarchies
- Know how to set up notifications
- Build, schedule, test and monitor distribution and import jobs
- Understand interchange mapping
- Understand basic/advanced workflow setup and configuration
- Understand how application security works; how to create users, roles and user groups
- Configure the advanced rules engine
- Understand iHooks and process flow
- Use the admin workbench including metadata transfer across landscapes

### Prerequisites:

The following courses are required as prerequisite:

- webMethods OneData for End Users

### Duration:

4 days

### Content:

- Object definition
- Data object - basic configuration
- Data object - advanced configuration
- Conceptual object configuration
- Repository project configuration
- Data deployment
- Data acquisition
- Job center
- Security
- Workflow
- Admin workbench
- Rules engine and iHooks
- Process flow

## webMethods OneData API and Configuration

### Description:

This course provides the knowledge needed to administer a webMethods OneData solution from an infrastructure and integration perspective. It covers software installation, infrastructure setup, integration configuration and production support activities.

### Audience:

Technical administrators

### Topics:

At the end of this course, you will be able to:

- Install OneData software using the installer
- OneData Security setup including LDAP integration setup
- Configure services layer (API and Web services)
- Configure messaging queues
- Understand real-time Master Data Management (MDM)
- Set up repository level properties
- Troubleshoot and provide production support

### Prerequisites:

- Basic knowledge of SQL and relational databases
- Knowledge of Java-based application servers

### Duration:

1 day

### Content:

- webMethods OneData architecture and installation
- Java API and Web services
- Real-time MDM

## webMethods OneData MDR

### Description:

This course provides the knowledge needed to implement and administer a webMethods OneData MDR solution. It includes browsing, maintenance and reporting of administered items and classification scheme Items. It covers the registration process associated with administered items. In addition, it provides an overview of advanced presentation layer options and security. It also covers the API functions specific to registry.

### Audience:

Administrators, data stewards, registrars

### Topics:

At the end of this course, you will be able to:

- Understand the underlying database model for the metadata registry
- Understand the basic operations on administered items and alternative views built on it
- Manage administered items; use customized import utilities for administered items and associative entities
- Move administered items through the registration process, create version, delete/cascade deletes on administered items
- Manage classification schemes and associated taxonomy
- Associate administered items to classification scheme item nodes
- Generate XML schema specifications
- Configure the options for advanced presentation layer, such as groups, sub-types, multi-select and templates
- Understand how application security works; how to create users, roles, and user groups; configure external authentication using LDAP and synchronization
- Import of technical data and linking it to data elements
- Understand MDR-specific API functions

### Prerequisites:

- webMethods OneData skills as acquired in the course
- webMethods OneData (for end users)

### Duration:

3 days

### Content:

- webMethods OneData MDR overview
- Data management and acquisition
- Registration and workflow process
- MetaMap
- Model configuration
- Security
- API and Web services

**ENTIREX / APPLINX**  
**COURSES**

## EntireX / ApplinX

### Here's your bridge to Business Process Excellence

Turn applications running on mainframe, AS/400®, Linux, UNIX or Windows platforms into services with minimal effort. Re-use existing, established application functionality to fast-track the availability of new products and services for SOA and BPM environments.

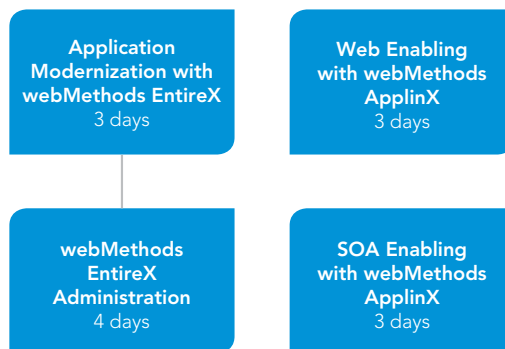
Quickly modernize core applications. Modernize without changing code by using ApplinX. webMethods ApplinX is the low-risk, non-invasive approach to Web-enabling core-system user interfaces. Improve the end-user experience by giving existing applications a true Web look and feel. Modernize existing systems in just days without changing existing code. ApplinX is the only product on the market that allows you to simultaneously convert "green screens" into Web interfaces and service-enable user sessions.

Turn existing application functions into new high-value business services—quickly and easily—by using webMethods EntireX. Discover how you can rapidly create new .NET, Java or Web services comprised of business logic and transactions from a wide range of host environments. EntireX enables true bi-directional service wrapping.

Learn more about all the training options available for ApplinX and EntireX.

# Learning Path

## Integration and Modernization with EntireX, ApplinX



EntireX/  
ApplinX

Go back!

## EntireX, ApplinX Courses

### Application Modernization with webMethods EntireX

**Description:**

This course uses real-life scenarios to teach the technical functionality and features of webMethods EntireX and shows you how to use it successfully to perform service-based application modernization.

**Audience:**

Application developers, system administrators and SOA developers/architects

**Topics:**

At the end of this course, you will be able to:

- Understand seamless point-to-point integration across platforms and SOA concepts
- Enable cross-platform service interface-based integration using EntireX RPC and various wrappers
- Extend the scope of existing applications
- Understand administration and security concepts of webMethods EntireX

**Prerequisites:**

- Programming experience: Server environment (e.g., Natural, COBOL, PL/I), Client environment (e.g., Java, C#, ASP.NET, VBA)
- Basic knowledge of Web technologies, XML and Web services

**Extensions:**

The following courses are proposed for continuing education:

- webMethods EntireX Administration

**Duration:**

3 days

**Content:**

- webMethods EntireX in various integration scenarios
- Integration of existing COBOL, PL/I or Natural applications
- EntireX RPC technology (IDL, extractors, wrappers, service interfaces, etc.)
- Invocation of existing applications from Java, Web service or Microsoft® .NET clients
- Extending existing applications to invoke Java, Web service or .NET applications
- Conversational and reliable RPCs
- EntireX messaging using Broker ACI and message queuing
- Integration of JMS and MQI applications
- Basic administration using system management hub (broker, RPC server, etc.)
- Security concepts



## webMethods EntireX Administration

### Description:

This course provides the technical in-depth knowledge you will need for cross-platform implementation and administration of your integration solutions based on webMethods EntireX. You will learn to install, configure, tune and conduct administration tasks for EntireX on the mainframe, UNIX/Linux and Windows platforms.

### Audience:

System administrators, application developers and SOA developers/architects

### Topics:

At the end of this course, you will be able to:

- Understand the architecture of all EntireX components on various platforms
- Monitor, administer and tune a distributed solution based on webMethods EntireX
- Secure your EntireX application

### Prerequisites:

- Programming experience: server environment (e.g., Natural, COBOL, PL/I), client environment (e.g., Java, C#, ASP.NET, VBA)
- Basic knowledge of Web technologies, XML and Web services
- Knowledge of your server operating system (z/OS®, z/VSE®, BS2000/OSD or UNIX/Linux) and Windows

The following courses are required as prerequisite:

- Application modernization with webMethods EntireX

### Duration:

4 days

### Content:

- webMethods EntireX in various distributed environments
- Architecture, configuration and administration of the EntireX Broker on different platforms
- Configuration and administration of Natural- and EntireX RPC Servers
- Administration of EntireX Broker agents, listeners and bridges
- Load balancing and automatic server startup using the attach server
- Monitoring, tracing and accounting in an EntireX environment
- Security using EntireX Security, Natural Security and SSL
- Platform dependencies
- Deployment and performance

## Web-enabling with webMethods ApplinX

### Description:

ApplinX is Software AG's revolutionary server-based technology that offers a variety of ways to expand the capabilities of any organization's legacy assets.

### Audience:

Application developers, project leaders

### Topics:

The course is intended to provide both theoretical and practical knowledge of ApplinX. During the course, you will create and develop a demo ApplinX application, applying the tools and methodology taught.

### Prerequisites:

- Good working knowledge of Web technologies (e.g., HTML, CSS, JavaScript®)
- Good programming skills (Java or .NET)

### Duration:

3 days

### Content:

- ApplinX overview and architecture
- First steps
- Setting up and developing an ApplinX Web application
- Instant pages
- Customizing the page layout
- Creating and using tables
- Customizing the host keys
- Transformations (wizard-based and coded in Java)
- Customized pages
- Combining data from multiple host screens
- Hands-on exercises

## SOA-enabling with webMethods ApplinX

**Description:**

ApplinX is Software AG's revolutionary server-based technology that offers a variety of ways to expand the capabilities of any organization's legacy assets.

**Audience:**

Application developers, project leaders

**Topics:**

The course is intended to provide both theoretical and practical knowledge of ApplinX. During the course, you will create and develop a demo ApplinX application, applying the tools and methodology taught.

**Prerequisites:**

- Basic knowledge of Web technologies and XML
- Basic knowledge of the Web services standards

**Duration:**

3 days

**Content:**

- ApplinX overview and architecture
- First steps
- Identifying screens and screen groups
- Application map
- Creating path procedures
- Creating flow procedures
- Deploying procedures as Web services
- Complementing screen data with external data sources (external databases or Web services)
- Registering Web services in CentraSite
- Generating client-side proxies (binary RPC)
- Hands-on exercises

**TERRACOTTA**  
COURSES

# TERRACOTTA

## Turn big data into a big opportunity

Big data is at the heart of every enterprise. And when your users need it, they need it fast. With the Terracotta In-Memory Data Fabric Platform, featuring BigMemory, the data your users need isn't buried deep in a database. It's stored in-memory, where it is quickly retrievable by multiple users with multiple apps. Terracotta is the first-choice platform for distributed in-memory data management with extremely low, predictable latency at any scale.

Learn more about all the training options available for Terracotta.

# Learning Path **TERRACOTTA**

Building In-Memory  
Applications with  
Terracotta  
BigMemory  
3 days

**TERRACOTTA**

Go back!

## TERRACOTTA Courses

### Building In-Memory Applications with Terracotta BigMemory

**Description:**

This class discusses the technical concepts and usage of Terracotta BigMemory. It contains a lot of exercises where the student learns how to install and program with Terracotta BigMemory. Great focus is put on how to design or redesign applications to benefit from Terracotta BigMemory. This is a technical hands on class with a lot of practical exercises. It is assumed that the student is familiar with the used operating system on a command prompt level. It also includes some Java programming exercises, with given sample solutions.

**Audience:**

Administrators who want to understand the functionality of Terracotta BigMemory, architects who design solutions using Terracotta BigMemory, developers integrating Terracotta BigMemory into existing applications

**Topics:**

At the end of this course, you will be able to:

- Understand the basic concepts of Terracotta BigMemory
- Install Terracotta BigMemory
- Set up local caches
- Set up Terracotta BigMemory Server Arrays
- Use the Terracotta BigMemory API to get and put data efficiently into a cache
- Understand the system of reference theory
- Add Terracotta BigMemory to typical database applications as intermediate cache
- Apply proven strategies to deploy Terracotta BigMemory and its built-in persistence functionality to run a typical database application without database

**Prerequisites:**

- Fundamental knowledge of Eclipse and Java
- General operating system concepts like virtual and real memory, address space limitations, paging and swapping
- Basic knowledge of the used operating system in class (Windows 7 or Windows Server 2008) on the command line level

**Duration:**

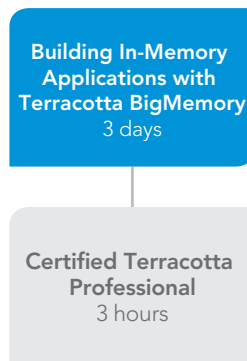
3 days

**Content:**



- Overview
- Installation
- Cache management
- Configuration
- High availability
- Caching strategies
- Cache API
- Search API
- Caching database contents
- Collection artifacts in case of problems
- Monitoring a cache
- Wrap up

# Learning Path

## Certified TERRACOTTA Professional



### Legend:

-  = Certification
-  = Classroom training

Go back!

# TERRACOTTA – Certification

## Certified Terracotta Professional

**Audience:**

experienced Terracotta user

**Prerequisites:**

The test assumes a general understanding of the Java programming language. The questions cover the following Terracotta product:

- Terracotta Big Memory Version 4.2

This test is designed to check for skills and understanding of customization and management of a Terracotta environment.

**Test Structure:**

The certification test is practice-oriented and simulates situations typical for Terracotta based caches, Server arrays and their administration. It tests your knowledge in all areas that are important for usage, customization and management of your Terracotta environment.

The Certified Terracotta Professional certification is done web-based as multiple-choice test. This proctored examination is designed for the experienced Terracotta user. It consists of about 60 multiple choice questions, which cover a range of topics. To pass the test and receive certification, you must score a 66% on the test within 180 minutes.

**Preparation Guidelines:**

Successful completion of the Certified Terracotta Professional test requires a solid knowledge in using the Terracotta product as can be acquired through Software AG training courses plus practical experience.

While the suggested resources can assist you in preparing for the test, it is imperative that you have hands-on experience in customizing and managing a Terracotta installation.

For topics covered in the test, please review the documentation delivered with the Terracotta installation.

No course completion is required to sit for this exam, but prospective examinees are strongly recommended to have completed the course:

- Building In-Memory Applications with Terracotta BigMemory

**Test Topics:**

Individuals who successfully complete the Certified Terracotta Professional test will have demonstrated knowledge and skills associated with the following subject areas:

- Terracotta Installation and Configuration
- The Java API to Terracotta
- Strategies for data caching with Terracotta
- Searching Terracotta based caches and the search API
- Integrating Terracotta with your applications
- Utilities available to work with a Terracotta installation



**UNIVERSAL MESSAGING**  
COURSES

## UNIVERSAL MESSAGING

### Simple. Scalable. Real-time messaging.

Terracotta Universal Messaging is the streaming solution of choice for financial markets where it has been benchmarked as the fastest unified messaging product on the market today. With Universal Messaging, you can:

- Simplify messaging with one solution for streaming real-time data across enterprise, Web and mobile channels
- Accelerate time-to-insight and action with ultrafast and highly scalable message delivery using both brokered and brokerless deployments
- Scale without limits—support thousands of connected users

Learn more about all the training options available for Universal Messaging.

# Learning Path

## UNIVERSAL MESSAGING

Terracotta Universal  
Messaging for  
Developers  
2 days

Terracotta Universal  
Messaging for  
Administrators  
2 days

## UNIVERSAL MESSAGING Courses

### Terracotta Universal Messaging for Developers

**Description:**

This course introduces the Universal Messaging product. Participants learn through hands-on exercises how to install and use the product. At the end of this course, students will be able to install and use the Universal Messaging Realm Server, Enterprise Manager and Client APIs.

**Audience:**

Developers

**Topics:**

At the end of this course, you will be able to:

- Describe the components and architectures of the Universal Messaging platform
- Understand how to use the Software AG Installer or Web download for product installations and initial configuration
- Use Enterprise Manager administrative tool for Realm servers
- Use Universal Messaging Enterprise APIs to implement real-time publish/subscribe functionality into enterprise-class applications using a range of languages
- Focus on Java in the course

**Prerequisites:**

1 to 2 years experience in software development, preferably Java

**Extensions:**

The following courses are proposed for continuing education:

- Terracotta Universal Messaging for Administrators

**Duration:**

2 days

**Content:**

- Overview
- Installation and usage
- Security
- Client architecture
- Native chat programming
- JMS chat programming
- Data groups programming
- Mobile
- Scheduling

### Terracotta Universal Messaging for Administrators

**Description:**

Participants will learn installation and configuration of the Universal Messaging product. The course is designed to enable a participant to undertake both installation/setup and day-to-day administration duties from development to production.

**Audience:**

Administrators, system administrators

**Topics:**

At the end of this course, you will be able to:

- Describe the components and architectures of the Universal Messaging platform
- Understand how to use the Software AG Installer or Web download for product installations and initial configuration
- Use Enterprise Manager administrative tool for Realm Servers
- Perform troubleshooting tasks for Universal Messaging

**Prerequisites:**

Being familiar with the role of message-oriented middleware

**Duration:**

2 days

**Content:**



- Overview
- Installation
- Clustering
- Security
- Server architecture
- Performance
- Administration
- Administration API programming
- Support

# Learning Path

## Certified UNIVERSAL MESSAGING Professional



### Legend:

-  = Certification
-  = Classroom training

Universal Messaging

Go back!

# UNIVERSAL MESSAGING – Certification

## Certified Universal Messaging Professional

### Audience:

Experienced UM user

### Prerequisites:

The test assumes a general understanding of Universal Messaging. The questions cover the Universal Messaging Product Version 9.8

This test is designed to check for skills and understanding of customization and management of an Universal Messaging environment.

### Test Structure:

The certification test is practice-oriented and simulates situations typical for working with universal messaging. It tests your knowledge in all areas that are important for usage, customization and management of your Universal Messaging environment.

The Certified Universal Messaging Professional certification is done web-based as multiple-choice test. It consists of about 60 multiple choice questions, which cover a range of Universal Messaging Methodology, Clients, Servers and Management topics. To pass the test and receive certification, you must score a 66% on the test within 180 minutes.

### Preparation Guidelines:

Successful completion of the Certified Universal Messaging Professional test requires a solid knowledge in using Universal Messaging, as can be acquired through Software AG training courses plus practical experience.

While the suggested resources can assist you in preparing for the test, it is imperative that you have hands-on experience in developing applications using Universal Messaging as well as customizing and managing the Messaging environment.

The certification assumes one has gathered practical experience of working in the following product contexts:

- Installing the product
- Setting up a cluster
- Managing such cluster
- Programming with the product using the following technologies
  - Java
  - HTML / Java Script
  - JMS
  - Admin API

For topics covered in the test, please review the Universal Messaging Documentation. This can be found in the Internet at <http://um.terracotta.org/>

No course completion is required to sit for this exam, but prospective examinees are strongly recommended to have completed the courses:

- Terracotta Universal Messaging for Developers
- Terracotta Universal Messaging for Administrators

### Duration:

3 hours

### Test Topics:

Individuals who successfully complete the Certified Universal Messaging Professional test will have demonstrated knowledge and skills associated with the following subject areas:

- Installation
- Architecture
- Realms
- Security
- Delivery Modes (guaranteed, persistent, transactional, etc)
- Messaging Models (Topic, Queue, Groups)
- API Considerations
  - JMS
  - Native
  - mobile
- Administration
  - Management Console
  - Management API
- Scheduling
- Support

**APAMA**  
COURSES

# APAMA

## Take control of big data in motion

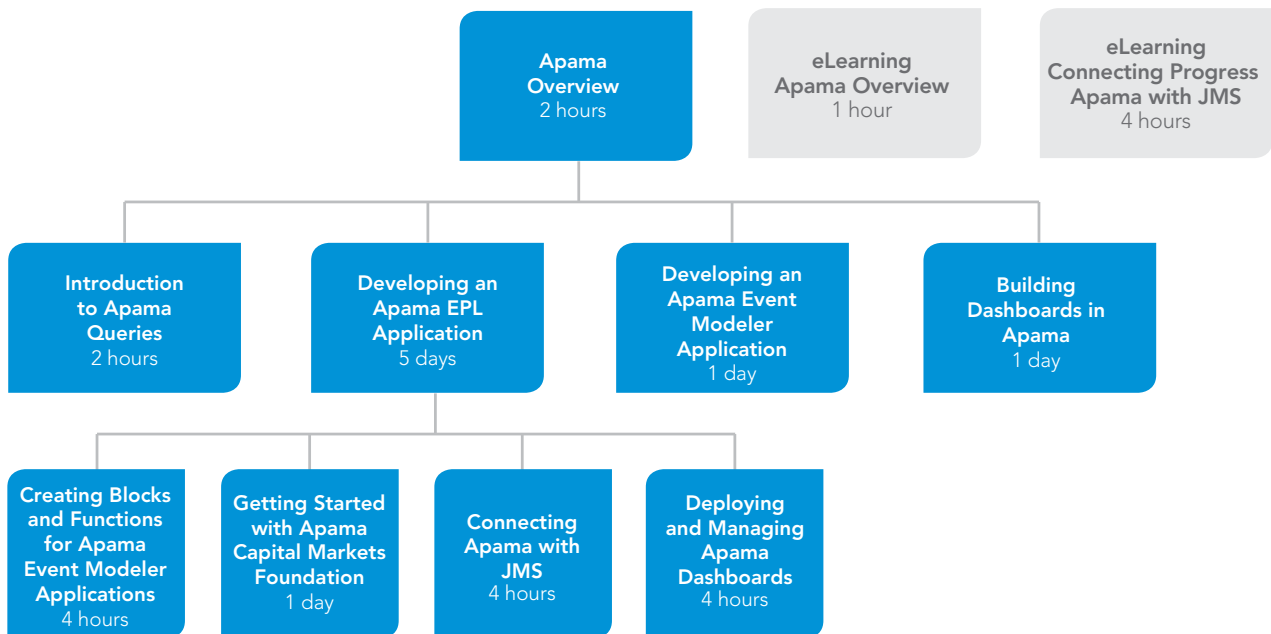
Software AG's Apama Streaming Analytics is a market-leading platform for streaming analytics and intelligent automated action on fast-moving big data. This platform is the most complete—combining event processing, messaging, in-memory data management and visualization.

The Apama platform allows businesses to analyze and act on high-volume business operations and customer interactions in real-time. Apama rapidly correlates, aggregates and detects patterns across large volumes of fast-moving data from multiple sources, so you can take the right action at the right time.



Learn more about all the training options available for Apama.



# Learning Path APAMA



### Legend:

-  = eLearning
-  = Classroom training

APAMA

Go back!

## APAMA Courses

### Apama Overview

**Description:**

The Apama Overview course contains one lesson which introduces learners to Complex Event Processing (CEP) and Apama. It illustrates how Apama CEP can benefit enterprises across different industries and provides an overview of how the various pieces of the Apama platform work together to help enterprises achieve the CEP vision. It briefly explores the components of Apama's event correlator engine and describes the Apama application life cycle and the tools that help develop, deploy, manage and monitor an Apama application.

**Audience:**

Business analysts, application developers, enterprise architects and business managers who want an overview of Apama and CEP before evaluating Apama or taking other Apama courses

**Topics:**

At the end of this course, you will be able to:

- Describe CEP
- Describe how Apama enables CEP for an enterprise
- Describe the benefits and features of Apama
- Describe how Apama works
- Describe the components of an Apama application
- Identify the tools to develop, integrate, deploy and manage an Apama application
- Describe how an Apama application can be developed, integrated with other systems, deployed and managed

**Prerequisites:**

Experience with distributed computing and enterprise-grade applications

**Extensions:**

The following courses are proposed for continuing education:

- Building Apama Dashboards

**Duration:**

2 hours

**Content:**

- Introduction to Apama
- Wrap up

### Introduction to Apama Queries

**Description:**

In this course, participants are provided with information on how to build an Apama query application using the graphical Query Designer tool. This course includes slide presentations, demonstrations, and hands-on exercises. Apama queries allow business analysts and developers to create scalable applications to process events originating from very large populations of real-world entities, such as credit cards, bank accounts, cell phones. Typically, you want to independently examine a set of events associated with each entity, that is, all events related to a particular credit card account, bank account, or cell phone. A query application operates on a huge number of independent sets with a relatively small number of events in each set. Apama queries are designed to be easy to develop for both the business analyst and the application developer. This course describes how to use the visual Query Designer in Apama Studio, which enables business analysts to easily create, review, and edit queries.

**Audience:**

Business Analysts

**Topics:**

At the end of this course, you will be able to:

- Define an Apama query and the components of an Apama query
- Describe a use case for an Apama query application
- Build a query using the Query Designer's Design view
- Run and test a query application

**Prerequisites:**

The following course is recommended as a prerequisite: Apama Overview

**Duration:**

2 hours

**Content:**

- Overview of Apama queries and their components
- Use cases for an Apama query application
- Building and running a query using the Query Designer's Design view

## Developing an Apama Event Modeler Application

**Description:**

This course teaches you how to build an event-processing application with Apama without writing code. In Apama, there are several ways to build applications. One of the ways is to create an Apama scenario using the Event Modeler feature in Apama Studio. The Event Modeler is an intuitive, graphic, modeling tool. It enables business analysts and other non-technical users to define event-processing logic with little or no coding. An Apama application can be developed using one or more scenarios. A scenario provides instructions to Apama's correlator about patterns of events to monitor and defines actions to take in response to events that match a specific pattern. This course begins by introducing you to scenarios, their main components, and the steps required to create them. Next, this course teaches you how to perform each of the steps to create a scenario. You learn how the scenario components-states, variables, blocks and rules combine with each other to evolve into a complete scenario application. Finally, you learn how to run the completed scenario application and observe the output.

**Audience:**

Business analysts or other non-technical users who want to create an event processing application graphically, without writing code

**Topics:**

At the end of this course, you will be able to:

- Describe an Apama scenario and its components
- Perform the steps involved in building and running an Apama scenario

**Prerequisites:**

The following courses are required as prerequisites:

- Apama Overview

**Extensions:**

The following courses are proposed for continuing education:

- Building Dashboards in Apama

**Duration:**

1 day

**Content:**

- Introduction to Event Modeler
- Creating states in Event Modeler
- Defining scenario variables
- Using blocks in a scenario
- Composing rules and running the application

## Developing an Apama EPL Application

**Description:**

This course teaches you how to create an event processing application with Apama's Event Processing Language (EPL). Apama EPL is a basic, imperative scripting language. It is strongly, statically typed and case-sensitive. Apama EPL is event-driven, meaning that it passes information in the form of events. Though it contains many of the familiar constructs and features found in general-purpose programming languages, such as Python® or Java, EPL also has special features to make it easy to aggregate, filter, correlate, transform, act on and create events in a concise manner.

**Audience:**

Software developers who are new to Apama, but have some experience with other programming languages, such as Java or C++

**Topics:**

At the end of this course, you will be able to:

- Describe how the Apama event correlator (Apama's event processing engine) receives and processes events based on EPL instructions
- Write an event processing application using Apama's EPL
- Use the Eclipse-based Apama Studio development environment to write and run EPL applications

**Prerequisites:**

- Experience writing applications in a programming language, such as Java or C++
- Familiarity with the Eclipse development environment (helpful but not a must)

The following courses are required as prerequisites:

- Apama Overview

**Duration:**

5 days

**Content:**

- Introduction to Apama EPL
- Defining event types
- Writing your first monitor
- Monitoring complex events
- Generating events
- Writing an Apama query
- Using streams to generate value-added events or items
- Defining reference types, loops and conditions
- Making data available for viewing in an Interface
- Spawning multiple instances of a monitor
- Implementing parallel processing
- Additional ways to use events and actions
- Sharing, exposing and persisting application data

## Creating Blocks and Functions for Apama Event Modeler Applications

**Description:**

This course teaches how to create custom blocks and functions for Event Modeler applications. It introduces users to scenarios and its components. A scenario is modeled like an algorithm, which provides instructions to the correlator about the patterns of events to monitor, and defines what actions to take in response to those events. However, a scenario cannot exist independently. It needs an interface to connect to other Apama components. A block provides that interface and integrates the scenario with other Apama components. The course then teaches the developer how to create a custom block when standard blocks that come bundled with the Studio do not meet the requirements. Similarly, a developer can customize functions when standard functions do not meet the requirements. Finally, the course teaches how to integrate customized blocks and functions with the scenario.

**Audience:**

EPL developers who wish to develop custom blocks and functions for defined Apama scenarios

**Topics:**

At the end of this course, you will be able to:

- Describe a scenario
- Describe blocks and functions
- Develop custom blocks
- Develop custom functions
- Integrate custom blocks and functions with the scenario

**Prerequisites:**

The following courses are required as prerequisites:

- Developing an Apama EPL Application
- Apama Overview

**Duration:**

4 hours

**Location:**

Public course in one of our training rooms

**Content:**

- Introducing blocks and functions
- Creating Custom blocks and functions

## Getting Started with Apama Capital Markets Foundation

### Description:

Apama Capital Markets Foundation (CMF) enables an Apama EPL developer to accelerate the development of a variety of capital markets solutions. The CMF components make building front-office applications easier, by providing code for standard financial application services so that you can focus on the unique business logic of your applications.

This course provides an introduction to developing an Apama application using the CMF components that facilitate: managing services, simulating data, working with market data, submitting market orders and monitoring order status, using multiple contexts.

In the hands-on exercises, you apply what you learn by incrementally building a sample CMF application that implements a basic trading strategy.

### Audience:

Apama Event Processing Language (EPL) developers with knowledge of financial market concepts and terminology

### Topics:

At the end of this course, you will be able to:

- Develop a financial markets application using CMF components

### Prerequisites:

- Understand the basic syntax and language elements of Apama EPL, including event actions, call backs, and parallel processing
- Know how to write an event processing application using Apama EPL
- Know how to use the Eclipse-based Developer Studio for Apama (Apama Studio) development environment to write and run EPL applications

### The following courses are required as Prerequisites:

- Developing an Apama EPL Application
- Apama Overview

### Duration:

1 day

### Content:

- Introduction to CMF
- Using infrastructure components
- Working with market data
- Managing orders
- Implementing multiple contexts

## Connecting Apama with JMS

### Description:

Apama's event correlator sends and receives events through adapters. Apama adapters connect the Apama framework to external event sources, translating application-specific data into Apama application event format that the correlator can process. You can connect Apama to any event data source, database, messaging infrastructure, or application. Some of the commonly used standard adapters that are bundled with Progress Apama are for:

- Java Messaging Service
- Databases
- Web Services
- Files

In this course, you learn how to connect an Apama application to JMS. It tells you how to configure a JMS Correlator-integrated adapter and how Apama interacts with JMS. Note: This course does not cover the IAF-based JMS adapter.

### Audience:

Developers

### Topics:

At the end of this course, you will be able to:

- Describe how Apama connects with external data sources
- Add a JMS Correlator-integrated adapter to an Apama project
- Configure a JMS Correlator-integrated adapter
- Verify that the adapter is configured properly

### Prerequisites:

- Knowledge of JMS systems and JMS concepts, including connections, message producers (senders), and message consumers (receivers)
- Knowledge of XML, XPath, and XML Transformation (XSLT)
- Knowledge of Apama capabilities and components
- An understanding of the elements and syntax of Apama EPL

### Duration:

4 hours

### Content:

Connecting Apama with JMS

## Building Apama Dashboards

### Description:

Apama provides a comprehensive set of features and tools to develop/implement Complex Event Processing (CEP) solutions. You can use Apama Event Processing Language (EPL) or Apama Event Modeler to write CEP applications. An Apama dashboard is a graphical interface that you create for Apama applications. A dashboard is updated in real time. You use a dashboard to view and interact with both scenarios from applications created using Event Modeler and data views from applications created using Apama EPL. In this course, you learn to create a dashboard. You first learn to design a dashboard GUI and then connect the GUI elements to correlator data to reflect live data on the dashboard. You also learn about commands that are used to drill down to a new dashboard or to view detail information of the selected instance. Finally, you also learn about functions that can be used to perform calculations on correlator data and display the result on the dashboard.

### Audience:

Apama developers who are familiar with EPL or Event Modeler to develop applications

### Topics:

At the end of this course, you will be able to:

- Given an existing Apama project, create dashboards
- Attach the dashboard elements to correlator data
- Configure dashboard elements to execute commands that create, edit, and delete scenario instances, and executes system commands and send event commands to manipulate data view data
- Use functions to perform calculations on the dashboards

### Prerequisites:

- Know how to write an event processing application using Apama EPL or Event Modeler
- Experience with using the Apama Studio development environment to write and run EPL programs

The following courses are required as prerequisites:

- Apama Overview

### Duration:

1 day

### Location:

Public course in one of our training rooms

### Content:

- Overview of Apama dashboards
- Building a dashboard GUI
- Attaching visual objects to correlator data
- Using commands and functions

## Deploying and Managing Apama Dashboards

### Description:

A dashboard is a graphical user interface for an Apama application. Apama dashboards display an Apama application's business data in graphs, meters, interactive grids, and controls so that you can analyze and act upon data in real-time. They are built in the Dashboard Builder and then deployed to an application server. In this course, you learn how to deploy dashboards. You can deploy them locally or on Web servers. This course also provides information about the options available to scale a dashboard application and about the options available for implementing user authentication and user authorization for deployed dashboards.

### Audience:

Solution administrators who have basic knowledge of Apama and can deploy existing dashboards on an application server.

### Topics:

At the end of this course, you will be able to:

- Describe the different options for deploying Apama dashboards
- Deploy dashboards to an application server (for web-based deployment)
- Deploy dashboards on a local machine
- Describe the options for scaling up a dashboard application for handling large datasets
- Define Named Data Servers so that you can distribute data to multiple data servers
- Describe the options for implementing security for deployed dashboards

### Prerequisites:

You should already be able to use the authentication and authorization options of your application server.

### Duration:

4 hours

### Location:

Public course in one of our training rooms

### Content:

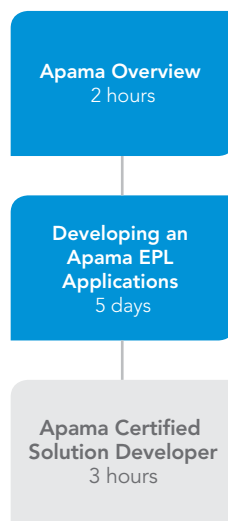
- Deploying Dashboards
- Scalability and Security of Deployed Dashboards







# Learning Path

## APAMA Certified Solution Developer



### Legend:

-  = Certification
-  = Classroom training

## APAMA – Certification

### Apama Certified Solution Developer

**Description:**

The Apama Certified Solution Developer certification is done Web-based as multiple-choice test. This proctored examination is designed for the experienced Apama Solution developer who writes, tests, debugs, and maintains software solutions; prepares application components for deployment; and may also be responsible for software product definition, requirements analysis, specifications, and choice of application architecture and design. It consists of about 60 multiple choice questions, which cover a range of Apama development topics. To pass the test and receive certification, you must score a 66% on the test within 180 minutes. The exact numbers in effect for a test may change at short notice and will be displayed in the test.

**Test content**

Individuals who successfully complete the Apama Certified Solution Developer test will have demonstrated knowledge and skills associated with the following subject areas:

- Overview  
Apama Studio, Correlator, Integration topics
- EPL  
Events, Monitors, Actions, Streams,  
General Programming, DataViews,  
Spawning, Parallel Processing, Storing  
Data, Error Checking, ApamaDoc

**Test preparation**

Successful completion of the Apama Certified Solution Developer test requires a solid knowledge in Apama as can be acquired through Software AG training courses plus practical experience.

While the suggested resources can assist you in preparing for the test, it is imperative that you have hands-on experience in developing applications with Apama EPL.

For topics covered in the test, please review the Apama documentation delivered with your Apama installation files.

**Prerequisites:**

The scope of the test is Apama 5.1. The test is designed to test for skills in developing an Apama EPL application using the Apama Studio development environment.

No course completion is required to sit for this exam, but prospective examinees are strongly recommended to have completed the following courses:

- Apama Overview
- Developing an Apama EPL Applications

**Duration:**

3 hours

**Language:**

English

**PRESTO**  
COURSES

# PRESTO

## Mashups for right-time decision-making

Presto delivers operational insight dashboards direct from live information sources. You can combine data from any original source - data warehouses, news feeds, social media, Business Intelligence (BI) systems, streaming big data and even Microsoft® Excel® spreadsheets – to create business mashups for right-time decision-making.

Learn more about all the training options available for Presto.

# Learning Path

## **PRESTO**

Presto for  
Power Users  
2 days

Presto for  
Developers  
2 days

## PRESTO Courses

### Presto for Power Users

**Description:**

In this day course, you will learn how to use the Presto real-time actionable intelligence platform in the role of a power user. This course has been designed to teach you techniques for creating mashables, mashups and apps using internal or external information sources. During this course you will learn the procedures to combine information gathered from a number of disparate data sources and present the data in both text and graphical formats.

**Audience:**

Users wishing to visualize data with Presto

**Topics:**

At the end of this course, you will be able to:

- Understand the types of information sources available in Presto Hub
- Connect to data sources ("mashables") in Presto hub
- Use mashables in Presto Wires to create mashups
- Create views and apps from mashables and mashups
- Aggregate apps together into a workspace app using MashBoard
- Share apps through a direct URL, the Presto Enterprise AppDepot, or email

**Prerequisites:**

- General use and knowledge of computing paradigms
- Web browser usage, including using drag-and-drop GUIs
- Familiarity with spreadsheet concepts
- Basic understanding of XML (optional)

**Duration:**

2 days

**Content:**

- Connecting to data sources
- Creating mashups and performing analytics (RAQL)
- Exposing artifacts to apps (visualizations)
- Creating dashboards
- Sharing apps

### Presto for Developers

**Description:**

Presto for Developers teaches the participant how to easily transform data and create mobile and desktop apps from data sources that sit behind and in front of your organization's firewall. Learn how to manipulate data using the Enterprise Mashup Markup Language (EMML), extend Presto Wires with custom blocks, create custom views and apps using HTML5 and JavaScript, and use the RAQL Explorer Add-On. This course also discusses administrative issues such as server configuration.

**Audience:**

SOA architects, SOA librarians and SOA developers

**Topics:**

At the end of this course, you will be able to:

- Use the EMML and XPath expressions to normalize, construct and transform data from different sources
- Create custom blocks in Presto Wires for use by power users and other developers
- Publish apps to a variety of platforms that include mobile devices, Microsoft® SharePoint® and HTML Web pages.
- Create custom apps in JavaScript and HTML that pull data from a Presto server
- Apply security and governance to your mashables, mashups and apps

**Prerequisites:**

- Presto for Power Users
- Prior experience with HTML/JavaScript
- Casual familiarity with XML concepts and syntax.

**Duration:**

2 days

**Content:**



- Recap of the Presto for Power Users course
- Creating mashups with EMML
- Extending Presto Wires with custom blocks
- Creating custom views using HTML5 and JavaScript
- Creating custom apps
- Using the BigMemory APIs

# Learning Path

## PRESTO Certified Dashboard Developer



### Legend:

-  = Certification
-  = Classroom training

## PRESTO – Certification

### Presto Certified Dashboard Developer

**Audience:**

Experienced Presto developer

**Prerequisites:**

The test assumes a general understanding of Internet technologies (such as HTML, CSS, JavaScript®, XML) as well as specialized knowledge of Presto development.

This test is designed to check for skills and understanding of how to implement dashboard applications with Presto in an organization.

**Test Structure:**

The certification test is practice-oriented and simulates situations typical for dashboard development in Intelligent Business Operations. It tests your Presto knowledge in all areas that are important for development of dashboards and administration of the Presto environment.

The Presto Certified Dashboard Developer certification is done web-based as multiple-choice test. This proctored examination is designed for the experienced CAF developer. It consists of about 50 multiple choice questions, which cover a range of CAF-specific topics. To pass the test and receive certification, you must score a 66% on the test within 180 minutes.

**Preparation Guidelines:**

Successful completion of the Presto Certified Dashboard Developer test requires a solid knowledge in using Presto as can be acquired through Software AG training courses plus practical experience.

While the suggested resources can assist you in preparing for the test, it is imperative that you have hands-on experience in developing and/or maintaining dashboard applications with Presto since this is a practice-oriented test.

For topics covered in the test, please review the Presto documentation delivered with its installation files.

No course completion is required to sit for this exam, but prospective examinees are strongly recommended to have completed the courses:

- Presto for Power Users
- Presto for Developers

**Duration:**

3 hours

**Test Topics:**

Individuals who become a Presto Certified Dashboard Developer will have demonstrated knowledge and skills associated with the following subject areas:

- General Presto Topics – architecture, artifact types
- Presto Hub – components, functionality, collaboration
- Data Sources – data source types (CSV, WSDL, REST, etc.)
- Presto Wires – components, blocks, data types
- Views & Apps – creation and configuration, themes, device compatibility
- Mashboard – components, inter-app communication
- App Depot – creating & publishing apps, approving/rejecting new apps, personal copies of an app
- RAQL & EMMML – large data sets, BigMemory, in-memory stores
- Customization – macros & macro libraries, templates & pluggable view, APIs, custom apps
- Event Sources – Apama, EDA
- Presto Freeform – widgets, connecting to event data sources or BigMemory, filtering
- Presto Admin Console



# ADABAS & NATURAL COURSES

## ADABAS & NATURAL

### Proven for decades. Optimized for the Digital Enterprise.

Your enterprise has invested for years in core systems. Now you can leverage those systems in new ways for your Digital Enterprise to increase agility and integrate with SOA, BPM and mobile environments.

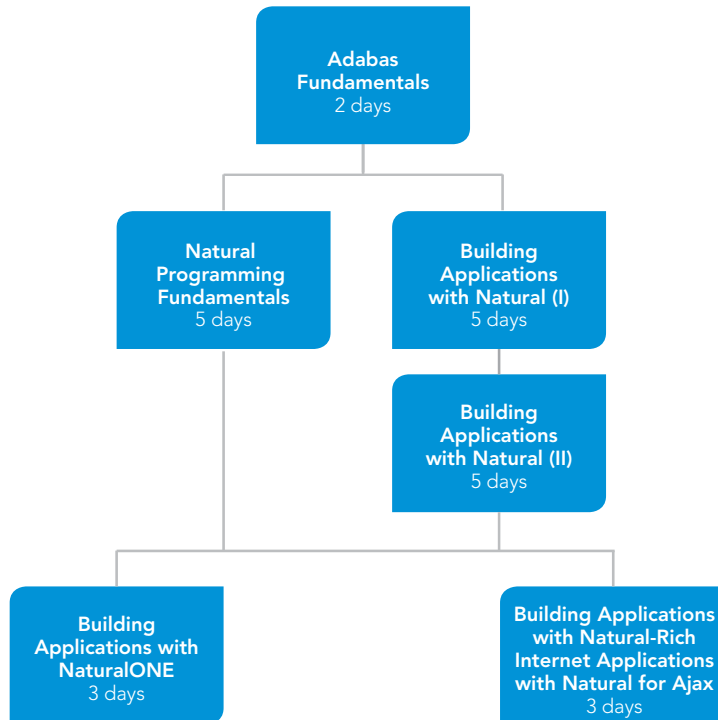
Using Transaction Platforms based on Adabas & Natural, you can rapidly develop, modernize and reliably run mission-critical application workloads. These platforms deliver high-performance data processing (recent tests tripled our previous highest speed), an integrated development and runtime environment and a complete set of value-adding modernization technologies.

Transform your systems to meet new business demands:

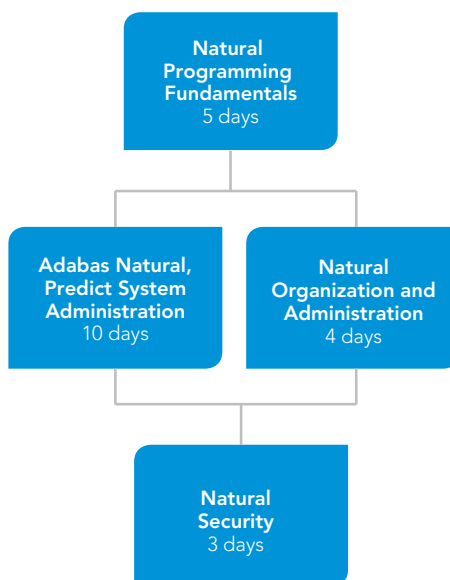
- Share mission-critical data in real-time
- Achieve sub-second response times even when demand is extraordinary
- Run applications on platforms that best suit the workload
- Integrate Adabas with big data and other data management platforms
- Modernize apps – avoid a costly “rip & replace” approach

Learn more about all the training options available for Adabas & Natural

## Learning Path **NATURAL Programming**



## Learning Path **NATURAL System Administration (Mainframe)**



## NATURAL Courses

### Building Applications with Natural (I)

**Description:**

Natural is a development platform for building large and complex business applications. By completing this course, you will learn to use the functions of the Natural development environment and to implement applications with database accesses, processing logic and maps for the mainframe, UNIX and Windows target platforms.

**Audience:**

Application developers, project leaders, system administrators

**Prerequisites:**

General programming skills

The following courses are required as prerequisite:

- Adabas Fundamentals

**Extensions:**

The following courses are proposed for continuing education:

- Building Applications with Natural (II)
- Natural Organization and Administration
- Building Applications with NaturalONE
- Building Applications with Natural - Rich Internet Applications with Natural for AJAX
- Natural (UNIX, Windows) Organization and Administration

**Duration:**

5 days

**Content:**

- The Natural system - an overview
- Working in the Natural development environment
- Prototyping
- Program editor, data area editor, map editor
- Variables and data structures
- Statements and commands
- Application modularization techniques
- Database accesses and modifications
- Transaction logic
- Creating reports
- Debugging

### Building Applications with Natural (II)

**Description:**

Based on the contents of the course Building Applications with Natural I, this course provides you with advanced knowledge needed to build complex business applications. In in-depth workshops, you will use predefined program skeletons and programming standards in practice.

**Audience:**

Application developers, project managers

**Prerequisites:**

Programming experience

The following courses are required as prerequisite:

- Building Applications with Natural (I)

**Extensions:**

The following courses are proposed for continuing education:

- Reengineering and Refactoring with Natural Engineer
- Natural Organization and Administration
- Natural (UNIX, Windows) Organization and Administration

**Duration:**

5 days

**Content:**

- Techniques of application development with Natural
- Standardization and modularization of applications
- Design of access modules
- Remote procedure calls
- Ergonomic interface design
- Error handling
- Support of multiple languages
- Complex Adabas accesses
- Data exchange with work files, Entire Connection and XML
- Long-running processing, Natural in batch mode
- Data sorting
- Quality assurance

## Natural Programming Fundamentals

### Description:

Natural is a development environment and programming language from Software AG which is used by many well-known enterprises to develop their core systems.

This course is both for inexperienced and experienced Software developers who have acquired experience in other programming languages. It teaches the concepts and basic language elements of Natural. You will learn how to develop new business applications and how to modify existing ones.

### Audience:

Software developers, Software architects

### Prerequisites:

- Basic knowledge in programming and databases

### Duration:

5 days

### Content:

- Data definition
- Static tables and spreadsheet processing
- Assignments
- Arithmetic
- Loops
- Conditional processing
- File processing
- Database access, transactional logic
- Modularisation
- Development of character-oriented user interfaces
- Error handling

## Building Applications with NaturalONE

### Description:

NaturalONE is an all-in-one Natural development environment providing a single Eclipse-based IDE for new application development as well as maintenance and modernization. This course provides you with advanced knowledge needed to build Natural applications with NaturalONE. In practical workshops you will learn to use the Eclipse workbench with the corresponding NaturalONE functionality, e.g., perspectives, views, editors and plug-ins.

### Audience:

Application developers, project leaders

### Topics:

At the end of this course, you will be able to:

- Develop applications with NaturalONE
- Use the Natural data browser
- Test Natural subprograms
- Use the Natural debugger
- Perform versioning for Natural applications
- Create AJAX applications
- Generate Web services
- Use the Predict plug-in

### Prerequisites:

Programming experience

The following courses are required as Prerequisites:

- Natural Programming Fundamentals

### Duration:

3 days

### Content:

- NaturalONE overview
- Eclipse workbench - perspectives, views, local workspace
- Natural data browser, test subprogram
- Natural editors - DDM editor, map editor, source editor, code assistant
- Build project, upload/compile and execute programs
- Natural debugger
- Advanced concepts - working modes, versioning
- Building rich internet applications with AJAX
- Generating Web services
- Using the Predict plug-in

## Building Applications with Natural— Rich Internet Applications with Natural for AJAX

### Description:

This course provides you with advanced knowledge needed to build rich Internet applications. In workshops you will learn to create rich GUI Web pages manually or to create them by conversion from existing Natural maps and to use them in combination with a Natural application.

### Audience:

Application developers, project leaders

### Prerequisites:

Programming experience

The following courses are required as Prerequisites:

- Adabas Fundamentals
- Natural Programming Fundamentals

### Duration:

3 days

### Content:

- Introduction and overview
- The development environment
- Processing
- Controls - overview and types
- Designing the user interface
- Complex controls and processing details
- Navigation
- Customizing the rich GUI Web page
- Modernization of legacy applications

## Building Unicode Applications with Adabas and Natural

### Description:

Internationalization of Adabas-Natural application systems is one of the big challenges of the Software AG community. In order to meet those requirements, the current versions of Adabas and Natural support the Unicode standard. This course provides you with the knowledge required to build Unicode-enabled applications. Participants will learn to prepare Adabas databases and files, and to develop Natural applications with respect to Unicode support.

### Audience:

Natural programmers/developers and Adabas-Natural system administrators

### Prerequisites:

The following courses are required as prerequisites:

- Adabas Fundamentals
- Adabas System Administration
- Natural Programming Fundamentals

### Duration:

2 days

### Content:

- Internationalization
- Unicode - terms and definitions
- Unicode support in Adabas (mainframe and open systems)
- Unicode support in Natural (runtime environment – development environment - statements)

## Using Predict for Application Development

### Description:

This practice-oriented course provides you with the knowledge and skills you need to use Predict in development projects for the documentation and administration of application systems and data structures.

### Audience:

Application developers, data dictionary administrators, project managers, systems analysts

### Prerequisites:

Basic Adabas and Natural skills

The following courses are required as prerequisites:

- Adabas Fundamentals
- Adabas, Natural, Predict System Administration

Extensions:

The following courses are proposed for continuing education:

- Predict Administration

### Duration:

5 days

### Content:

- Software development life cycle
- Predict's scope of functionality and system architecture
- Functions for the documentation of application systems and data structures
- Evaluation of the documentation
- Creation of data descriptions and generation of DDMs
- Application-related and cross-application evaluations of active reference data
- Consistency check and comparison of documented/implemented systems and data structures
- Redocumentation of existing programs and files

## Predict Application Control—Usage and Administration

### Description:

This course provides you with advanced knowledge needed to use and administrate Predict Application Control. In workshops you will learn to administrate the environment, to define statuses like DEVELOPMENT, TEST, PRODUCTION, etc. and to migrate objects from DEV to TEST and to PROD. Furthermore you will learn to maintain the repository.

### Audience:

Application developers, project leaders

### Prerequisites:

Programming experience

The following courses are required as prerequisites:

- Natural Programming Fundamentals

### Duration:

3 days

### Content:

- Introduction
- Natural / Predict environment
- PAC entities
- PAC administration
- Predict Application Audit (PAA)
- Event processing
- Repository maintenance
- PAC / PAA reporting
- Product internals / customization

## Predict Administration

### Description:

In this course you receive in-depth information about Predict's implementation concepts and configuration options from the database administrator's point of view. Intense hands-on workshops will give you additional practice.

### Audience:

Application developers, data dictionary administrators, database administrators

### Prerequisites:

Database knowledge

The following courses are required as prerequisites:

- Using Predict for Application Development

### Duration:

3 days

### Content:

- Predict basic information
- Generation and incorporation of external data structures
- Configuration of the implementation environment
- Extensions of the metastructure and of the functionality
- Security for Predict objects
- Consistency checks
- Maintenance of metadata

## Natural Organization and Administration

### Description:

This course provides you with the knowledge and skills needed for planning and performing all tasks required to set up, maintain, and monitor a system environment for Natural applications.

### Audience:

Natural (mainframe) system administrators, experienced application developers

### Prerequisites:

- Basic Natural skills
- Knowledge of an operating system (z/OS, OSD/BS2000, etc.)
- Knowledge of a TP system (Complete, CICS, UTM, etc. in an IBM® or Siemens® environment)

The following courses are required as Prerequisites:

- Natural Programming Fundamentals

### Duration:

4 days

### Content:

- Natural architecture and functioning
- Embedding Natural into the operating system and database environment
- Planning and administration of a Natural environment (development, test, production environment and deployment)
- Planning and defining user environments
- Monitoring and optimizing the system environment
- Problem analysis and maintenance



## Natural (UNIX, Windows) Organization and Administration

### Description:

This course provides you with the knowledge and skills you need to plan and execute all measures to set up, maintain and monitor a system environment for Natural applications on UNIX and Windows platforms.

### Audience:

Natural (UNIX, Windows) system administrators, experienced application developers

### Prerequisites:

Knowledge of the operating system used

The following courses are required as Prerequisites:

- Adabas Fundamentals
- Natural Programming Fundamentals

### Duration:

3 days

### Content:

- Natural (UNIX, Windows) architecture and functioning
- Natural for Windows as SPoD client
- Natural (UNIX, mainframe) as NDV Server
- Natural (UNIX, Windows) as RPC Server
- Planning and setting up Natural (UNIX, Windows) operational environments
- Development/production environment
- Deployment
- Planning and setting up user environments
- Monitoring and optimizing the system environment
- Problem analysis

## Natural Security

### Description:

In this course, you will acquire the knowledge and skills needed for the independent planning and implementation of a Natural Security environment with different authorization profiles for different users.

### Audience:

Project managers, system administrators, systems analysts

### Duration:

3 days

### Content:

- Structure and terminology of Natural Security
- Conceptual planning of data and function security in Natural development and production environments
- Establishing security definitions for users, user groups, applications and DDMs
- Defining application profiles and user authorizations
- Natural Security administration
- Using user exits
- Natural utilities, AOS and Predict under Natural
- Natural Security in distributed environments





# Learning Path

## NATURAL

### Certified Application Developer



#### Legend:

-  = Certification
-  = Classroom training

# NATURAL Certification

## Natural Certified Application Developer

### Description:

The Web-based multiple-choice test contains approximately 45 questions and must be completed in 180 minutes. To pass the test and receive certification, you must score a 66% on the test.

### Audience:

Application developers, system administrators, system programmers, systems analysts

### Topics:

The scope of the test is based on the Natural syntax available with version 4.2 on Mainframe and version 6.2 on Open Systems platforms. The test is designed to test for Natural programming skills. Natural system administration topics are not in the scope of this test. The certification test is practice oriented and simulates situations typical of Natural projects. Currently, the test contains questions for accessing Adabas databases. An alternative section of questions for accessing SQL databases is planned for a subsequent release of the test.

### Prerequisites:

Successful completion of Natural Application Developer Certification requires a solid knowledge in Natural programming, as can be acquired through Software AG training courses and through practical experience gained in medium-sized Natural development projects.

While the suggested resources can assist you in preparing for the test, it is imperative that you have hands-on experience developing and/or maintaining Natural applications since this is a practice-oriented test.

The scope of the test is based on the Natural syntax available as of version 4.2 on Mainframe and version 6.2 on Open Systems platforms. In general, the test is independent of operating system and platform details, but assumes a certain understanding of the concepts available with Natural for Mainframe and Open System platforms, in particular the Single Point of Development (SPoD) concept. Also, the availability / existence of modern Natural programming features, e.g., Web interface, XML and HTTP support, should be known on a basic level.

Currently, the test contains questions for accessing Adabas databases. An alternative section of questions for accessing SQL databases is planned for a subsequent release of the test.

The test is designed to test for Natural programming skills. Natural system administration topics are not in the scope of this test.

The following courses are required as prerequisites:

- Building Applications with Natural (I)
- Building Applications with Natural (II)

### Duration:

3 hours

### Language:

English

### Test Topics:

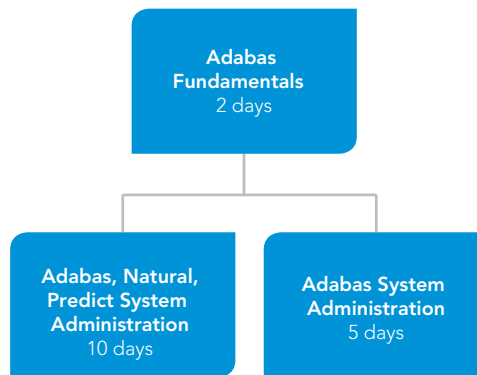
Individuals who successfully complete the Natural Application Developer test will have demonstrated knowledge and skills associated with the following subject areas:

- General Natural knowledge
  - Benefits of using Natural, application areas, platform and database availability, components of a Natural system, development scenarios, add-on products
- Natural syntax
  - Statements, data types, data declaration, data areas, system functions, system variables, DBMS access principles, Natural DML for Adabas access, error handling
- User Interfaces
  - Maps
- Handling the Natural development environment
  - System commands
- Application Architecture
  - Modularization, subprograms, subroutines, invocation, parameter passing, data access layers, optimistic and pessimistic locking concept
- Project related activities
  - Programming standards, getting help and support

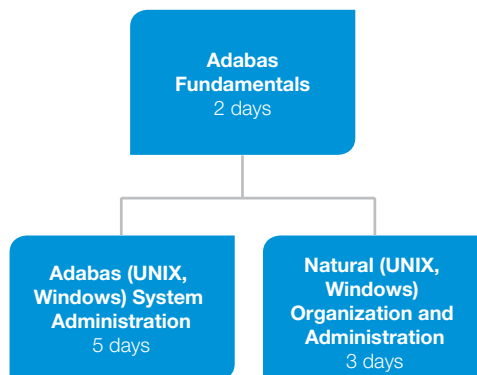
In addition to these core competencies that form the majority of the test, a few basic questions about modern Natural concepts and technologies will be asked. These will be focused on:

- Natural SPoD
  - Basic concepts, developments scenarios, components, Natural for Windows, NaturalONE
- Application Integration
  - Interfaces to external systems (CALL, REQUEST DOCUMENT), XML support, migration / porting

## Learning Path Adabas System Administration (Mainframe)



## Learning Path Adabas-Natural System Administration (Windows/UNIX)



## ADABAS Courses

### Adabas Fundamentals

**Description:**

Unparalleled in scalability and performance, Adabas is one of the leading database management systems for mission-critical applications. This course provides you with the essential knowledge of the architecture, facilities and functions of the Adabas UNIX, which is a prerequisite for all technical activities in the Adabas environment.

**Audience:**

Application developers, database administrators, project managers, system administrators, systems analysts

**Prerequisites:**

Sound knowledge of information processing

**Extensions:**

The following courses are proposed as continuing education:

- Adabas System Administration
- Adabas (UNIX, Windows) System Administration
- Natural Programming Fundamentals

**Duration:**

2 days

**Content:**

- Adabas in today's IT environments
- Adabas features and components
- Adabas architecture and structures
- Data definition, data description and design considerations
- Access logic for read and update functions
- Transaction logic
- Database administration overview

### Adabas, Natural, Predict System Administration

**Description:**

Adabas, Natural and Predict are a "dream team" for building and operating mission-critical transaction systems. Only a minimum of maintenance work is required, which is still indispensable. After completing this course, you will be able to perform all tasks necessary to build, maintain and monitor an Adabas/Natural/Predict system environment on mainframe platforms.

**Audience:**

System administrators

**Prerequisites:**

- Knowledge of the Adabas architecture and functioning
- Basic Natural skills
- Knowledge of an operating system (z/OS, OSD/BS2000, etc. and TP monitor (Complete, CICS, UTM, etc., in an IBM or Siemens environment)

The following courses are required as prerequisites:

- Adabas Fundamentals

**Duration:**

10 days

**Content:**

- Adabas database architecture
- Natural architecture and functionality
- Planning and setting up an Adabas, Natural and Predict system environment
- Fundamentals of Adabas file design
- File definition with Predict
- Administration of the Adabas, Natural and Predict system environments
- Planning and execution of restart and recovery
- Monitoring and optimizing the system environment
- Problem analysis and maintenance

## Adabas System Administration

### Description:

This course provides you with the knowledge you need to efficiently run your Adabas databases. You will acquire in-depth information about the technical administration and maintenance of Adabas. Among other topics, you will learn to perform all tasks needed to define, maintain and monitor an Adabas database.

### Audience:

Adabas mainframe system administrators, system administrators

### Prerequisites:

Knowledge of an operating system (z/OS, OSD/BS2000, etc.) and TP monitor (Complete, CICS, UTM, etc. in an IBM or Siemens environment)

The following courses are required as prerequisites:

- Adabas Fundamentals

### Duration:

5 days

### Content:

- Setting up an Adabas database
- Planning and setting up an Adabas system environment
- Fundamentals of Adabas file design
- File definition
- Administration of the Adabas system environment
- Planning and execution of restart and recovery
- Monitoring and optimizing the system environment
- Problem analysis and maintenance
- Storing concepts of spanned records and large objects

## Adabas (UNIX, Windows) System Administration

### Description:

This course provides you with the knowledge you need to run your Adabas database efficiently. You will acquire in-depth information about the technical administration and maintenance of Adabas. Among other topics, you will learn to perform all tasks needed to define, maintain and monitor an Adabas database.

### Audience:

Adabas (UNIX, Windows) system administrators

### Prerequisites:

Knowledge of the operating system being used

### The following courses are required as Prerequisites:

- Adabas Fundamentals

### Duration:

5 days

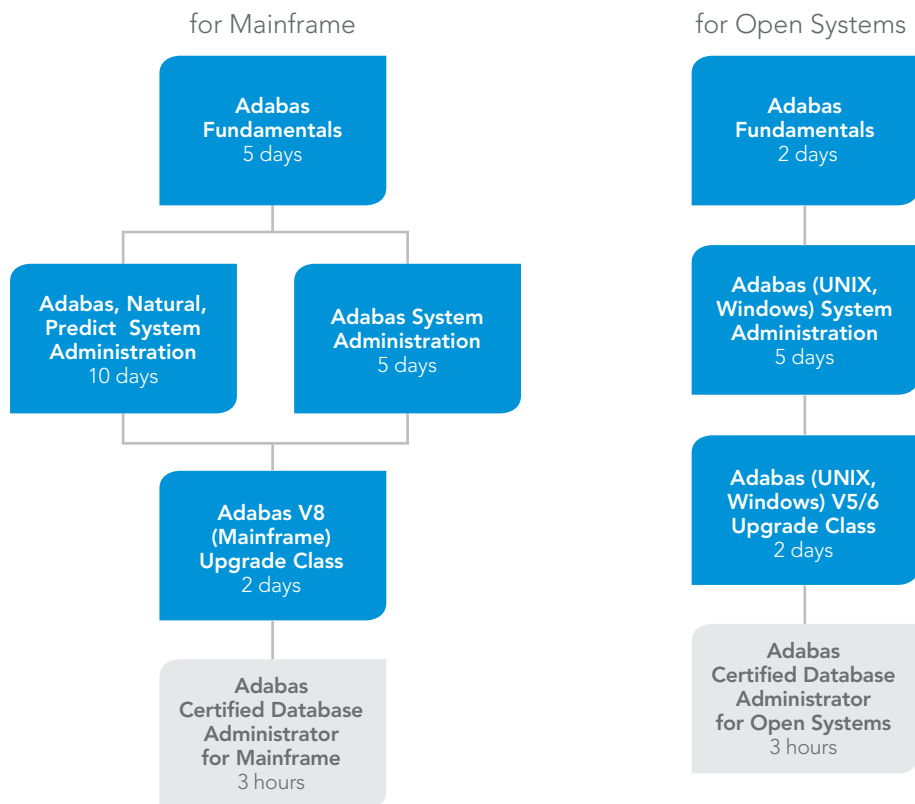
### Content:

- Product installation: preparing the Adabas system environment
- Adabas database: terminology, structures, architecture
- Adabas utilities: usage and control
- Adabas nucleus: variable areas and parameters
- Planning and setting up databases
- Defining files, loading data
- Configuring the nucleus
- Monitoring, managing, adapting databases and files
- Planning and executing back-up measures
- Problem analysis and solving





# Learning Path **ADABAS** Certified Database Administrator



**Legend:**

- = Certification
- = Classroom training

# ADABAS Certifications

## Adabas Certified Database Administrator for Mainframe

### Description:

The Adabas 8.x Database Administrator Certification Test is a Web-based multiple-choice test. It contains approximately 50 questions and must be completed in 180 minutes. To pass the test and receive certification, you must score a 66% on the test.

### Audience:

Application developers, data dictionary administrators, database administrators, IT architects

### Topics:

The scope of the Adabas 8.x Database Administrator Certification Test are mainframe operating systems (i.e., z/OS, z/VSE, BS2000 and VM/CMS). The Certification Test is practice-oriented and simulates situations typical for Adabas database administration. It tests your Adabas knowledge in all areas that are important to successfully manage and maintain Adabas databases, including the acquaintance of Adabas add-on products. The test covers general Adabas knowledge, including: benefits of using Adabas; platform availability; components of the Adabas system; Adabas commands and user types; and Adabas add-on products.

### Prerequisites:

General knowledge of the features of Adabas add-on products is expected, as well as knowledge of Predict and Adabas Online System (AOS), whereas Natural system administration and the Adabas Manager are not subjects of the test. In general, the test is independent of specific mainframe operating system, platform and application development system details, but assumes a certain understanding of the concepts available with Adabas for Mainframe. Even though the test is designed for Adabas administrators, the examinees should have basic knowledge of programming concepts to access Adabas as well as the existence of modern Adabas interfaces, e.g., Adabas SQL Gateway, Adabas SOA Gateway etc. Detailed programming skills are not in the scope of this test, whereas a thorough knowledge of the Adabas commands (direct calls) is a prerequisite. Successful completion of the Adabas 8.x Database Administrator Certification requires a solid knowledge of Adabas architecture, utilities and parameters as well as their functioning, as can be acquired through Software AG training courses. While the suggested resources can assist you in preparing for the test, it is imperative that you have hands-on experience gained by maintaining Adabas databases in production, development or test environments since this is a practice-oriented test.

The following courses are required as prerequisites:

- Adabas Fundamentals
- Adabas V8 (Mainframe) Upgrade Class
- Adabas, Natural, Predict System Administration
- Adabas V8 (Mainframe) Internals
- Adabas System Administration

### Duration:

3 hours

### Language:

English

### Test Topics:

- General Adabas knowledge: benefits of using Adabas, platform availability, components of an Adabas database system, access mechanisms including universal encoding support, Adabas add-on products (overview level)
- Adabas architecture: Adabas database and file structures, structures in the Adabas nucleus, i.e. buffers and pools
- Database administration: tasks of an Adabas database administrator, installation, administration tools
- Handling of the Adabas Nucleus: Adabas operator commands, starting, stopping and restarting the Adabas nucleus, ADARUN parameters and operator commands
- Database and file administration: database and file design, database and file maintenance, descriptor and space management
- Database and file access: Access and update commands, transaction and hold logic, user types
- Monitoring and performance: database report, nucleus statistics, command logging, add-on products for monitoring, performance aspects
- Ensuring database availability: backup and recovery, protection logging, error handling, problem solving (including Software AG support, ServLine24 and Developer Community)

## Adabas 6.x Certified Database Administrator for Open Systems

### Description:

The Adabas 6.x Database Administrator Certification Test is a Web-based multiple-choice test. It contains approximately 50 questions and must be completed in 180 minutes. To pass the test and receive certification, you must score about 66% on the test.

### Audience:

Application developers, data dictionary administrators, database administrators, development administrators, IT architects

### Topics:

The scope of the Adabas 6.x Database Administrator Certification Test are Open Systems (i.e., Windows, UNIX and Linux). The Certification Test is practice-oriented and simulates tasks and situations typical for Adabas database administration. It tests your Adabas knowledge in all areas that are important to successfully manage and maintain Adabas databases, including basic acquaintance with Adabas add-on products.

### Prerequisites:

General knowledge of the features of Adabas add-on products is expected, as well as knowledge of Predict, whereas Natural system administration and the Adabas Manager are not subjects of the test. In general, the test is independent of specific operating systems, platform and application development system details, but assumes a certain understanding of the concepts available with Adabas for Open Systems. Even though the test is designed for Adabas administrators, the examinees should have basic knowledge of programming concepts to access Adabas as well as the existence of modern Adabas interfaces, e.g., Adabas SQL Gateway etc. Detailed programming skills are not in the scope of this test, whereas a thorough knowledge of the Adabas commands (L1, L3, S1 etc.) is a prerequisite.

Successful completion of the Adabas 6.x Database Administrator Certification requires a solid knowledge of Adabas architecture, utilities and parameters as well as their functioning, as can be acquired through Software AG training courses. While the suggested resources can assist you in preparing for the test, it is imperative that you have hands-on experience gained by maintaining Adabas databases in production, development or test environments since this is a practice-oriented test.

The following courses are required as prerequisite:

- Adabas Fundamentals
- Adabas, Natural, Predict System Administration
- Adabas System Administration
- Adabas (UNIX, Windows) System Administration

### Extensions:

The following courses are proposed for continuing education:

- Adabas 8 (Mainframe) Upgrade Class

### Duration:

3 hours

### Language:

English

### Test Topics:

- General Adabas knowledge: benefits of using Adabas, platform availability, components of the Adabas database system, access methods including Universal Encoding Support, Adabas add-on products (overview level)
- Adabas architecture: Adabas database and file structures, structures in the Adabas nucleus, i.e. pools, queues and tables
- General database administration skills: tasks of an Adabas database administrator, installation, administration tools
- Handling of the Adabas nucleus: Adabas operator commands, starting, stopping and restarting the Adabas nucleus, ADANUC parameters and operator commands
- Database and file administration: database and file design, maintenance, descriptor and space management
- Database and file access: access and update commands, transaction and hold logic, user types
- Monitoring and performance: database report, nucleus statistics, command logging, add-on products for Adabas monitoring and performance
- Ensuring database availability: backup and recovery, protection logging, error handling, problem solving (including Software AG support, Empower and TECHcommunity)



# **GENERAL TRAINING** INFORMATION



## Contacts

Please contact us for more information and to review your specific education needs.

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  - Luxembourg: +352 29 21 22 11
  - Eastern Europe: +49 6151 92 3100
  - Israel: +972 3 538 8201
  - Bahrain, Saudi Arabia, United Arab Emirates and all other Middle Eastern countries: +33 1 78 99 70 23
  - Netherlands: +31 70 301 20 40
  - North Africa: +33 1 78 99 70 23
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The digital transformation is changing enterprise IT landscapes from inflexible application silos to modern software platform-driven IT architectures which deliver the openness, speed and agility needed to enable the digital real-time enterprise. Software AG offers the first end-to-end Digital Business Platform, based on open standards, with integration, process management, in-memory data, adaptive application development, real-time analytics and enterprise architecture management as core building blocks. The modular platform allows users to develop the next generation of application systems to build their digital future, today. With over 45 years of customer-centric innovation, Software AG is ranked as a leader in many innovative and digital technology categories. Learn more at [www.SoftwareAG.com](http://www.SoftwareAG.com).

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