

SAP Workshop: SAP XI (Exchange Infrastructure V.3 [latest]): A hands-on practical training workshop and Certification

SAP XI : A Quick Background:

XI stands for Exchange Infrastructure and is the future of integration within SAP as well as SAP's choice of an EAI tool into the future. Since it is a crucial component of the NetWeaver stack, in terms of integration, it is an essential and stable 'HOT technology' to learn and thus guaranteeing *many years of consulting* for an XI consultant.

Pre-Requisites (good to have not must to have):

Normal pre-requisites are:

- Fundamental XML and SOAP knowledge
- Basic SAP interfacing and IDOC/RFC knowledge
- JAVA programming fundamentals
- XSLT basics

NOTE: However, we cater for students that both have this knowledge as well as those that don't. You will be given basic primer's of all of the above such that you can understand and excel at its use within XI.

SAP XI Detailed Course Agenda: Step by Step Approach: What will you learn?

SAP XI Backbone / Fundamentals:

- XI, its role in SAP and beyond future direction, important SAP Direction.
- Tools:
 - SLD (System Landscape Directory): Technical Systems, Business Systems, Software Components, Software Products.
Bonus: an advanced architectural discussion on SLD use and administration
 - Integration Builder: Integration Repository and Integration Directory
 - Integration Engine (**Bonus:** Advanced pipeline discussion)
 - RWB (Runtime Workbench): Component monitoring, Performance monitoring, Cache monitoring, Message monitoring
(Bonus: Advanced setup and pitfalls for RWB)
 - Administration: Performance parameters and the pitfalls that may occur.
 - Security: **Bonus** section that discusses XI security
 - BPM (cross-component Business Process Management): Intro (advanced section later in course)

Design Elements

- Learn to navigate the Integration Repository.
- Create data types:
 - ❖ message types,
 - ❖ message interfaces,
 - ❖ integration scenarios,
 - ❖ message mapping,
 - ❖ Interface mapping using a prescribed fool-proof method.
- **Exercises:**

To tie all the theoretical aspects we will construct a scenario (Scripted and **bonus**: unscripted) to tie all the above into a working example and de-mystify their use. This will include (but is certainly *not* limited to!) creating objects like data types, message types, message interfaces, integration scenarios, message mapping, interface mapping, scenario creation, receiver determination, interface determination, communication channel creation.. Proxy generation (both Java and ABAP). Monitor the functioning interface and error detection and resolution.

Configuration Scenario

- Learn navigation of the Integration Directory
- Create scenario, receiver determination, interface determination, communication channel using a special, fool-proof methodology
- **Exercise:** See Previous Section

Mapping Concepts

- **Background**
 - A discussion of mapping in XI
- **Mapping Technologies**
 - Message Mapping: All standard functions and User-Defined functions
 - Java mapping, XSLT mapping, ABAP class mapping, ABAP-XSL mapping
 - *Bonus*: How to add message mapping types
- **Mapping Mechanics**: value mapping, mapping queue processing, caching, vector handling, context handling, cardinality.
- **Exercises:** 1:N mapping, value mapping, advanced testing of the mapping, tree-reversals, node summations. Queue viewing. **Bonus**: Advanced troubleshooting.

Adapter Framework and PCK

- Architectural Overview:
 - Adapter Engine, Adapter Framework, Module Processor, Resource Adapter, functionality of the adapter engine.
 - PCK (Partner Connectivity Kit)
 - **Bonus:** Advanced architectural discussions
- Adapter Configurations and Overview:
 - IDOC, RFC, RNIF, JDBC, JMS, XI, HTTP, SOAP, File, Mail. (**Bonus:** Super adapter cheat sheet)
- **Exercises:** We will do many examples using some of the above adapters to gain a solid understanding of how to configure adapters (communication channel)
Bonus: Advanced troubleshooting

BPM (cross component Business Process Management)

- Architectural Overview: Placement of BPM within XI
- Design and Execution: Design BPM processes using the tool. Detailed explanations of Blocks, Transformation, Loops, Wait steps, Send & Receive steps, Container Operations, Branching, Correlations, Containers, Receive Determination, Fork, Switch and Control Steps.
- **Exercise:** Understand and make a decision on when to use and Integration Process and a multiple examples to illustrate how to confidently create and implement BPMs.
- **Bonus:** Super tips on how to detect and solve BPM runtime and design time problems

Monitoring:

- Discussion and use of RWB tools as well as Adapter Framework and Trace files.
- Visual Admin settings that matter
- Runtime tools within XI IS.

MOST SIGNIFICANT Bonus in Addition to Education and Hands on Experience:

Certification Questions Mock Exam: Enough questions and investigation to not only make you pass the SAP certification, but to also, enroute, master the subject areas. You will not pass because you studied the questions...*You will pass* as a consequence of the knowledge gained during this course!