Course : Talend Open Studio for ESB, service integration

Practical course - 3d - 21h00 - Ref. TLS
Price : 1830 € E.T.

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Talend ESB is a platform for designing service-oriented architectures. You will learn how to use the Talend Open Studio development environment to design loosely coupled integration solutions based on message exchange, Web services and intelligent routing. This training is exclusively for Talend Open Studio (free, open source, community version). It does not cover the commercial version of Talend Studio, under paid license, integrated with the Qlik-Talend Cloud portal.

Teaching objectives

At the end of the training, the participant will be able to:

- Design data integration jobs using XML feeds and databases
- Developing SOAP and REST Web services
- Create Camel routes using a wide variety of protocols
- Exploit the main Enterprise Integration Patterns (EIP)
- Deploy Web services and routes on Talend ESB runtime (karaf) and audit their activity

Intended audience

Developers, project managers, software architects.

Prerequisites

Basic knowledge of XML, RDBMS, Web services. Knowledge of Java is a plus.

Practical details

Exercise

A series of mini-projects to address increasingly complex service integration issues.

Teaching methods

Theoretical input illustrated by concrete implementation examples, then consolidated by the realization of Talend ESB mini-projects.

Course schedule

PARTICIPANTS

Developers, project managers, software architects.

PREREQUISITES

Basic knowledge of XML, RDBMS, Web services. Knowledge of Java is a plus.

TRAINER QUALIFICATIONS

The experts leading the training are specialists in the covered subjects. They have been approved by our instructional teams for both their professional knowledge and their teaching ability, for each course they teach. They have at least five to ten years of experience in their field and hold (or have held) decision-making positions in companies.

ASSESSMENT TERMS

The trainer evaluates each participant's academic progress throughout the training using multiple choice, scenarios, hands-on work and more.
Participants also complete a placement test before and after the course to measure the skills they've developed.

1 Introduction: ESB and service integration

- Service integration technologies: MOM, JCA...
- Mediation and intelligent routing.
- Functionalities expected of an ESB.

Hands-on work

Installation/configuration of Talend Open Studion for ESB, verification of correct operation.

2 Getting started with Talend Open Studio for ESB

- Features and architecture components.
- Key elements of TOS job design.
- XML reminder: XSD schema and validation.
- Learn how to use the tXmlMap component.
- Design of data integration jobs, export and deployment on Talend ESB runtime.
- Produce logs.

Exercise

Store a multi-level XML stream in a database, and reconstruct it from elements present in the database.

3 Designing SOAP and REST Web services

- SOAP service versus REST service.
- WSDL creation/import, schema upload to repository metadata.
- Design jobs implementing SOAP services.
- Design jobs implementing REST services.
- Simple Web services orchestration.
- Deployment on Talend ESB runtime: .kar export and service activation.
- SoapUI test for correct operation.

Exercise

Development of CRUD as SOAP and REST services.

4 Connect to existing systems

- Apache Camel infrastructure (message, endpoint, etc.).
- Mediation perspective: graphical editor and EIP component palette.
- Overview of "messaging]-oriented components: File, FTP, CXF, JDBC, SEDA, Timer...
- JMS: producer/consumer and point-to-point models.
- Design routes using different protocols.
- Local route testing, deployment on Talend ESB runtime and activation.

Exercise

Transfer files locally and via ftp, broadcast by e-mail and via JMS.

5 Dynamic routing and transformation

- Perform routing based on message content and execution context.
- Enrich message content by calling a service and/or accessing a database.
- Adapt message formats and protocols.
- Manage exceptions raised by routes.

Exercise

Implementation of the VETRO pattern.

TEACHING AIDS AND TECHNICAL RESOURCES

• The main teaching aids and instructional methods used in the training are audiovisual aids, documentation and course material, hands-on application exercises and corrected exercises for practical training courses, case studies and coverage of real cases for training seminars.

• At the end of each course or seminar, ORSYS provides participants with a course evaluation questionnaire that is analysed by our instructional teams.

• A check-in sheet for each half-day of attendance is provided at the end of the training, along with a course completion certificate if the trainee attended the entire session.

TERMS AND DEADLINES

Registration must be completed 24 hours before the start of the training.

ACCESSIBILITY FOR PEOPLE WITH DISABILITIES

Do you need special accessibility accommodations? Contact Mrs. Fosse, Disability Manager, at psh-accueil@orsys.fr to review your request and its feasibility.

6 Use of infrastructure services

- Administer the Talend ESB runtime via the karaf console.
- Audit activities (data services, routes).
- Managing safety.
- Maintaining service availability.

Exercise

Implement an automatic failover strategy on a Web service.

Dates and locations

REMOTE CLASS
2026 : 15 June, 26 Oct.

PARIS LA DÉFENSE
2026 : 15 June, 26 Oct.