

# Course : Talend Open Studio, optimizing your data flows

**Advanced development - community version (free and open source)**

**Practical course - 2d - 14h00 - Ref. TAO**

**Price : 1680 CHF E.T.**

Talend's ETL makes it easy to add new functions and components to complex processes. This course will enable you to get to grips with Talend Open Studio's advanced features, so that you can implement data flows in an optimized and reliable way. This course is exclusively dedicated to Talend Open Studio (community, free and open source version). It does not cover the commercial version of Talend Studio, under paid license, integrated into the Qlik-Talend Cloud portal.



## Teaching objectives

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

- ✓ Master advanced TOS components
- ✓ Creating and using routines
- ✓ Using java and global variables in components
- ✓ Handling complex data structures
- ✓ Use best practices for deployment and monitoring in production

## Intended audience

BI developers, experienced BI consultants, database developers, BI design engineers, ETL consultants.

## Prerequisites

Talend Open Studio basics or training "Talend Open Studio, implementing data integration" (Ref. TOT)

## Practical details

### Teaching methods

Lecture-based teaching method with practical exercises after each concept or group of concepts.

## Course schedule

### PARTICIPANTS

BI developers, experienced BI consultants, database developers, BI design engineers, ETL consultants.

### PREREQUISITES

Talend Open Studio basics or training "Talend Open Studio, implementing data integration" (Ref. TOT)

### 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

- Talend Open Studio presentation.
- Reminder of ETL principles.
- TOS installation.

## 2 Java and routines

- Introduction to Java implementation principles.
- View the Java code associated with a job.
- Talend Java components.
- Create and use routines and global variables.
- Anatomy and creation of a component.

### Exercise

Use tJavaFlex, tJava including global variables. Write a routine and use it in a job.

## 3 Advanced data handling

- Connection and disconnection components.
- Transactions: commit and rollback management.
- Advanced components : Bulk, calling a stored procedure.
- Father/son link: connection sharing, variable sharing and return values.

### Exercise

Mutualization of connections, use of Rollback. Job creation to detect changes in data sources

## 4 Advanced data and file handling

- Memory components & buffers.
- Cutting and reunification components.
- Interagir avec les fichiers : copie, suppression, lecture de dossiers.

### Exercise

Manipulate flat file folders. Job creation replicating data in multiple outputs

## 5 Handling complex structures

- Interacting with Web Services
- Handle XML feeds.
- Discover JSON components.
- Use regular expressions.

### Exercise

Use Web services components in a Job. Create XML files from flat files. Generate a simple JSON object.

## 6 Production deployment

- Launch a job outside TOS.
- Talend Cloud and TMC
- Schedule the execution of a Windows job.
- Schedule the execution of a Linux job.

### Exercise

Associate a context group with a job. Export the first job created outside TOS, and schedule execution of the exported job via the Windows Task Scheduler.

## 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.

## 7 Improve and enrich your projects

- Other useful components: interaction with other systems, loops, denormalization.
- Best project practices. Data synchronization.
- Optimize job performance.
- Talend resources presentation.
- Promote your development within the Talend community.

### Exercise

Ajouter des composants de monitoring à un job. Création de jobs utilisant plusieurs composants avancés.

## Dates and locations

### REMOTE CLASS

2026 : 2 Apr., 11 June, 24 Sep., 10 Dec.