

# Extension API

DEV 253 - Course outline

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CONFIDENTIALITY LEVEL:

Public



### Target Group

This course is targeted towards application developers who will be responsible for delivering custom STEP components using the STEP Extension API.



### Pre-Requisites for Participation

Participants for the course will be expected to have the following:

Knowledge prerequisites

- Stibo Systems Academy courses (or equivalent knowledge acquired by other means):
  - MDM 101 - MDM Solution Fundamentals
- Good practical experience (ideally 6+ months) using a STEP system, with the STEP Workbench UI and STEP Web UI
- Expertise in the STEP Public API gained by either: passing the STEP DEV 250 Business Rules course; or good practical experience (ideally 6+ months) writing JavaScript Business Rules
- Good knowledge and practical experience of developing and delivering Java applications
- Technical understanding of protocols and technologies such as HTTP, XML and REST, and of web technologies in general
- Previous experience with design and development of enterprise software systems

Technical prerequisites (for the laptop to be brought to the course)

- Students must have Administrator rights on their PC for the course
- An IDE such as IntelliJ IDEA or Eclipse as stated in the Extension API pre-requisites installed
- Gradle and Maven – or IDE plugins - installed

JAVA JDK as stated in the Extension API pre-requisites installed



### Course Duration

The course duration is 4 days.



### Training Delivery Method

- ☒ In person classroom
- ☒ Virtual classroom
- ☐ Self-paced online

The course activities will be a combination of lectures, case studies in teams, problem solving exercises and presentations by the trainees.

**NOTE:** if there are more than four attendees, students may be required to work in pairs for practical exercises, as this will make for a more efficient learning experience.



### Course Purpose

In this course, you will gain the information and practical expertise needed to design, build and deploy custom software plugin components to extend the functionality of core STEP.



### Course Objectives

Upon completion of this course, participants will be able to:

1. Practice effective use of the Extension API in building Java extensions to STEP.
2. Identify the functional areas of STEP to which extensions can be applied.
3. Accomplish process of building, deploying and testing STEP extensions.
4. Build components in each functional area of STEP to which extensions can be applied.
5. Execute best practices in the implementation of STEP extensions.
6. Produce documentation of extensions for maintenance and support processes.
7. Compose a complete solution for a business requirements specification using multiple extensions and STEP components.



## Learning Objectives

The objectives below describe precisely what is taught during the training: (please note that the learning objectives can belong to more than one course objective).



### **Course Objective 1 - Practice effective use of the Extension API in building Java extensions to STEP.**

#### **Learning objectives:**

- Differentiate Scripting and Extension APIs.
- Classify Extension API in relation to extension plugin types.



### **Course Objective 2 - Identify the functional areas of STEP to which extensions can be applied.**

#### **Learning objectives:**

- Identify Business Rule components where extensions can be applied.
- Determine capabilities of the Extension API in Integration Endpoints.
- Extend REST capabilities of STEP.
- Identify Web UI components where extensions can be applied.



### **Course Objective 3 - Accomplish process of building, deploying and testing STEP extensions.**

#### **Learning objectives:**

- Administrate remote debug settings on server.
- Articulate implementation activities: build, package, sign, apply/deploy, debug.
- Demonstrate application of implementation activities in correct sequence.

> **Course Objective 4 - Build components in each functional area of STEP to which extensions can be applied.**

**Learning objectives:**

- Implement Business Action plugin.
- Implement Business Condition plugin.
- Implement Business Function plugin.
- Implement Inbound Integration Endpoint Receiver plugin.
- Implement Inbound Integration Endpoint Preprocessor plugin.
- Implement Outbound Integration Endpoint Postprocessor plugin.
- Implement Outbound Integration Endpoint Delivery plugin.
- Implement REST resource plugin.
- Implement Web UI Action Button plugin.
- Implement Web UI Editor Field plugin.

> **Course Objective 5 - Execute best practices in the implementation of STEP extensions.**

**Learning objectives:**

- Consider memory, performance, stability, scalability, locking impacts.
- Apply suitable logging & error handling strategies.
- Employ third party libraries effectively.

> **Course Objective 6 - Produce documentation of extensions for maintenance and support processes**

**Learning objectives:**

- Formulate documentation requirements in respect of extension versioning; naming; version control; support processes; maintenance; testing and QA.



**Course Objective 7 - Compose a complete solution for a business requirements specification using multiple extensions and STEP components.**

**Learning objectives:**

- Analyze business requirements to produce extension technical design.
- Implement solution components based on extension technical design.



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#### About Stibo Systems

Stibo Systems is a leading enabler of trustworthy data through AI-powered master data management. Built on a robust and flexible platform, our SaaS solutions empower enterprises around the globe to deliver superior customer and product experiences. Our trusted data foundation enhances operational efficiency, drives growth and transformation, supports sustainability initiatives and bolsters AI success. Headquartered in Aarhus, Denmark, Stibo Systems is a privately held subsidiary of Stibo Software Group, which guarantees the long-term perspective of the business through foundational ownership. More at [www.stibosystems.com](https://www.stibosystems.com).