



# BMC Helix CMDB 20.x: Advanced Using REST API and Pentaho Spoon

## COURSE ABSTRACT

### COURSE CODE

» SPPT-ACA4-2002

### APPLICABLE VERSIONS

» BMC Helix CMDB 9.0, 9.1, 9.1.04, 18.05, 18.08, 19.02, 19.08, 19.11, 20.02, 20.02.02 (on-premise) and 20.08 (SaaS)

### DELIVERY METHOD

» Instructor-led Training (ILT)

### COURSE DURATION

» 3 Days

### PREREQUISITES

» BMC Helix CMDB 20.x: Fundamentals Administering – Part 2

## Course Overview

BMC Helix CMDB provides a complete, accurate, and up-to-date view of the people, technologies, and services that make up your business and IT environments.

The *BMC Helix CMDB 20.x: Advanced Using REST API and Pentaho Spoon* course teaches students about CMDB REST API, how to use the syntax and schemes for the CMDB REST API, how to write custom and complex Pentaho Spoon Jobs, and other functions such as importing and exporting Spoon jobs. This three-day course is focused on learning advanced concepts of BMC Helix CMDB.

This course combines classroom instruction with laboratory exercises to guide students through the advanced concepts of BMC Helix CMDB. Students will develop skills in working with REST API and Pentaho Spoon custom jobs.

## Target Audience

- » Administrators
- » Configuration Managers
- » BMC CMDB Administrators

## Learner Objectives

- » Learn about overview of REST API, general principles for using the REST API and benefits of using the REST API
- » Learn about Swagger and Postman REST API
- » Describe how to use BMC CMDB functions in an external application with the REST API
- » Describe how to write custom and complex Spoon Jobs
- » Describe how to import and export Pentaho Spoon Jobs
- » Learn about the custom plug-ins

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### COURSE ACTIVITIES

- » Classroom Presentations
- » Hands-on Lab Exercises

### BMC HELIX CMDB 20.X LEARNING PATH

- » [https://www.bmc.com/education/courses/atrium\\_cmdb\\_training.html](https://www.bmc.com/education/courses/atrium_cmdb_training.html)

### ACCREDITATION AND CERTIFICATION PATHS

- » This course is part of the **BMC Helix CMDB** certification path.

### DISCOUNT OPTIONS

- » Have multiple students? Contact us to discuss hosting a private class for your organization
- » **Contact us for additional information** 

## Course Modules

### Module 1: Introduction to Spoon

- » Overview of REST API
- » Role of the Pentaho Spoon in CMDB
- » Spoon steps that are supported by BMC Software
- » Spoon installation
- » View OOTB BMC jobs and transformations

### Module 2: Creating Transformations in Spoon

- » Creating a basic CSV import transformation in Spoon
- » Adding data to the stream with constants
- » Selecting the correct CMDB CI class to import into
- » Reviewing CMDB classes and their underlying AR System forms
- » Configuring a CMDBOutput step
- » Importing data from an XML file and from an MS SQL Server Database table

### Module 3: Exporting Data from CMDB

- » Exporting data from CMDB to a CSV file in Spoon
- » Adding CMDBInput and Text file output steps to a transformation
- » Using CMDBLookup to find related CIs
- » Exporting related CIs from different classes to a single CSV file

### Module 4: Atrium Integrator Transformations

- » BMC best practice to create jobs in Atrium Integrator (AI)
- » Folder structure of AI-created jobs and transformations
- » Logging in Spoon jobs and transformations
- » Detailed look at Text file input and CMDBOutput steps
- » Using CMDBLookup to create correct relationships in CMDB
- » Investigating how the Delta update option works in a transformation

### Module 5: Spoon and Foundation Data

- » Spoon's role in loading ITSM Foundation data
- » Structure of the spreadsheets used in DMT and OnBoarding Wizard
- » Microsoft Excel input and Value Mapper steps
- » Using AROutput to write to a Form instead of a CMDB Class
- » Reviewing the OOTB LDAP transformation in Spoon

### Module 6: Overview of the REST API

- » Concept of the REST API
- » General principles for using the REST API

- » Supported resources/operations and status codes
- » Various examples of using the REST API

### Module 7: Basics of BMC Helix CMDB REST API

- » Overview of the CMDB REST API
- » Benefits of the CMDB REST API
- » Scenario to SEARCH for CI using the CMDB REST API

### Module 8: Syntax and Schemes for the CMDB REST API

- » General principles for using the REST API
- » Access and authentication for the REST API
- » Versioning scheme for the REST API
- » End Points in REST API
- » Pagination schemes for REST API responses
- » Troubleshooting steps for the REST API

### Module 9: Using the CMDB Swagger UI

- » Introduction to CMDB Swagger UI
- » The process of authenticating and accessing the CMDB REST API
- » The process of consume CMDB REST API

### Module 10: Use Cases for CMDB REST API

- » Various use cases for CMDB REST API
- » Create, read, update, delete CI instances

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