Groovy Development in SAP Cloud Platform Integration

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About Int4

Who we are

- Int4 is an SAP Partner and a market leader in test automation of SAP systems integration.

- Our team is represented by 2 SAP Mentors, 10 SAP PRESS authors, and over 30 SAP integration professionals.

- We have proven experience in consulting and delivery of the biggest integration projects all over the world.

- Our goal is to make an impact through automation; and support the SAP community by sharing our knowledge on paper, in videos, and during events.

We have a one-step solution for testing all SAP integration scenarios - Int4 IFTT.
“Integration is like a box of chocolates”

Challenges in integration
No two integrations are the same

Systems and applications with differing integration requirements
  • content type
  • connectivity

Not everything can be achieved by standard functionality – custom coding required

“You never know what you’re gonna get!”
Trends in Integration

- **Hybrid landscapes**
  - On-premise and cloud
  - Multiple vendors
- **Lack of customization options in SaaS - pushing application logic to integration platform**
- **Shift towards Agile and/or DevOps methodology**
• **SuccessFactors and Marketing Cloud**
• **Heavy usage of OData APIs**
  • Multiple calls
  • Correlation and orchestration
• **Application logic in integration platform**
  • Avoid where possible
  • If not, then modularize Integration Flow design so that it is manageable
Groovy to the Rescue!

- Script step in Integration Flow
- Implementation of custom logic
- Powerful, dynamic language, yet easy to use
- Flat learning curve for Java developers
#1 - Use an Integrated Development Environment (IDE)

- For simple logic, Web UI built-in editor is fine
  - Basic syntax check and other features on SAP’s roadmap
- For more complicated logic, switch to an IDE
- Recommendation - IntelliJ IDEA Community Edition
  - Native Groovy support
  - Syntax check
  - Auto completion
  - Debug without using `messageLog` statements
#2 - Write “Groovier” code

- **Groovy Style Guide**
  - Omit semicolons (;) for end of statement
  - Combine usage of static and dynamic typing

- **Use Groovy String**
  - Interpolated string with embedded placeholders
  - Simplifies creation of String with dynamic values
#2 - Write “Groovier” code

- Use Groovy shortcuts for Collections
  - Define and populate during initialization

- Iterate using each()
#3 - Test Groovy script before deployment

- Integration Flow Simulation Mode in Web UI
- Local testing in IDE
#4 - Handle message body efficiently

- Accessing the message body using `getBody()` is one of the most commonly used statement
- Avoid getting the body as a String, as it consumes additional resources
- Use a Reader to stream the content of the body
#5 - Process XML and JSON

- Graphical message mapping suitable for simple transformation
- For more complicated transformation, consider using Groovy script
- Native support for XML and JSON
- Accessing nodes using dot notation (GPath)
- WYSIWYG builder for generating XML/JSON output
Developing Groovy Scripts for SAP Cloud Platform Integration

• Authors
  • Vadim Klimov and Eng Swee Yeoh
  • Working with SAP CPI (a.k.a. HCI) since 2015

• Available since 18 June 2020
• Easy-to-read E-Bite format (126 pages)
• In-depth explanation of above tips with examples

More Tips and Tricks

A lot more to be found in the E-Bite!

• Regular expressions
• Handling other formats like CSV and PDF
• Dependency management
• Sneak peek into the underlying frameworks of CPI
Join Our Meme Contest

- Post a meme as a comment on the LinkedIn announcement
- Get as many likes on the meme by end of **Tuesday, 4th of August**
- Meme with highest number of likes win a copy of our E-Bite

[Link to LinkedIn post](https://lnkd.in/erChgk9)
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