

Week 3 Unit 3:

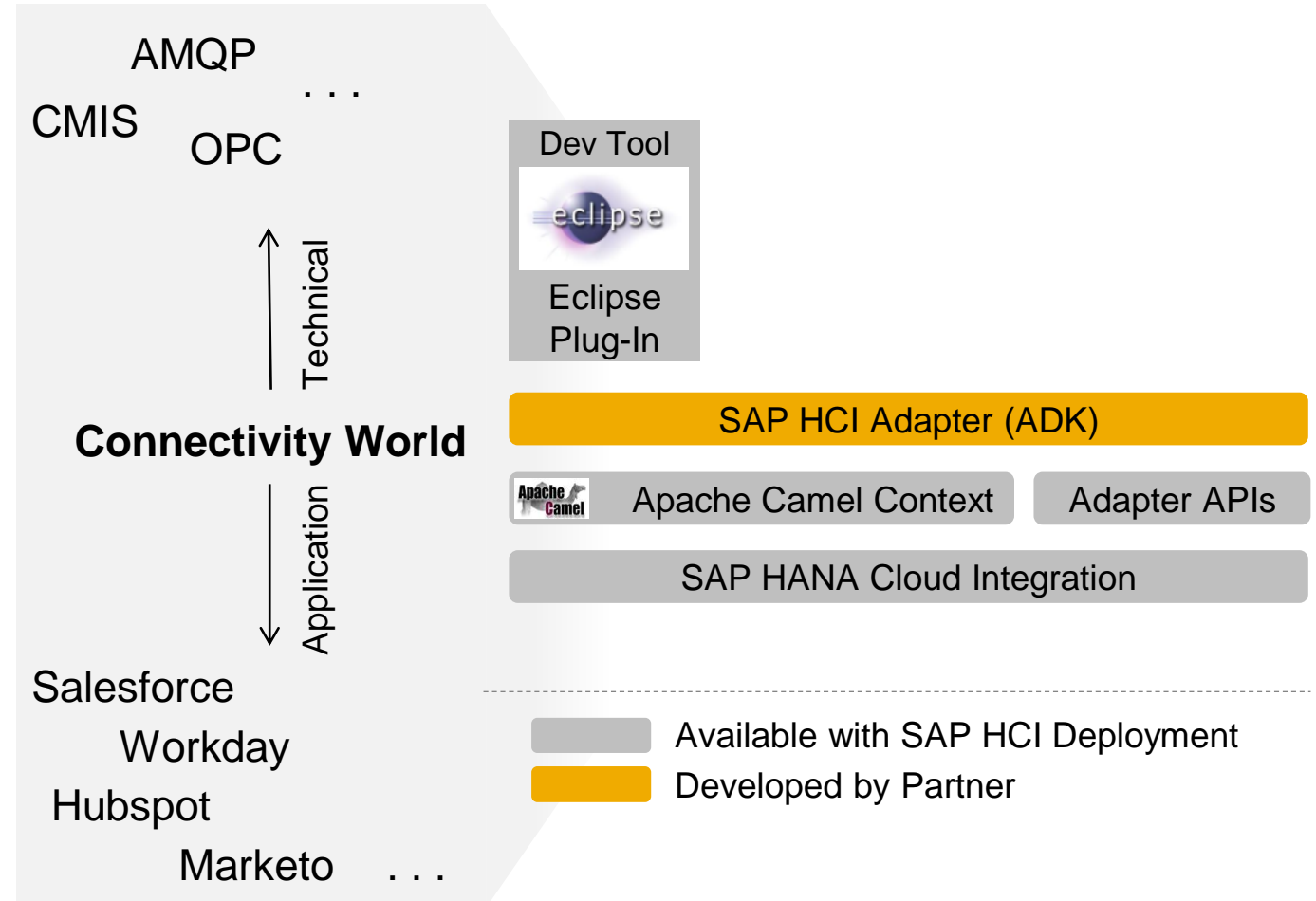
The Adapter Development Kit

A satellite is visible in the upper center of the image, positioned above the horizon of the Earth. The satellite has a long, thin boom extending from its main body. The Earth's surface is a vibrant blue, showing cloud patterns and the curvature of the planet against the black background of space.

The Adapter Development Kit

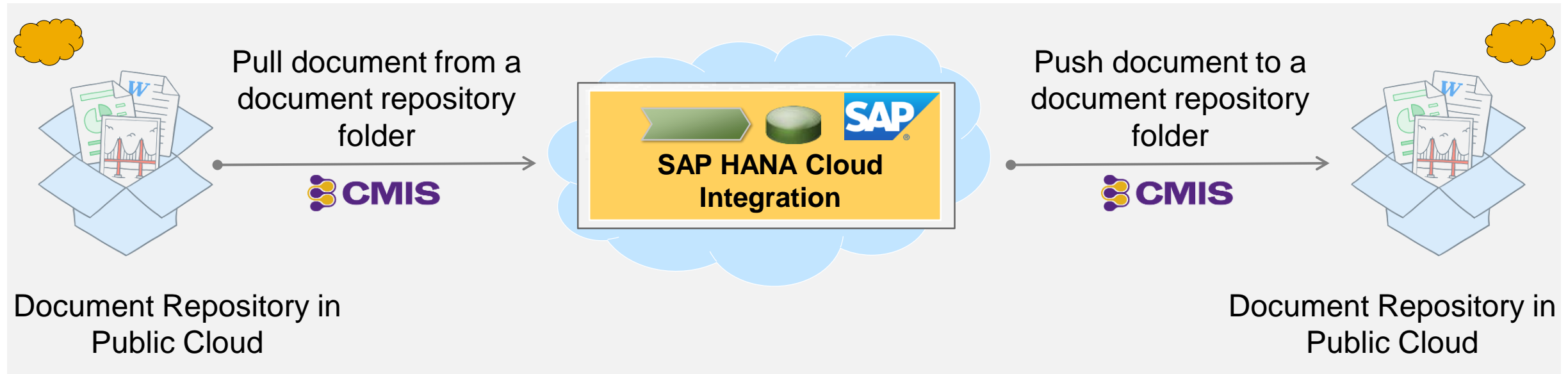
Introduction

- Extend SAP HANA Cloud Integration with new **adapter types**
- **Eclipse Luna** as development environment (Adapter project)
- **Apache Camel**-based **component** bundle and dependent **OSGi** bundles
- **Component metadata**: adapter attributes determine structure of configuration interface
- Documentation, JavaDoc, programming guidelines, and cheat sheets available



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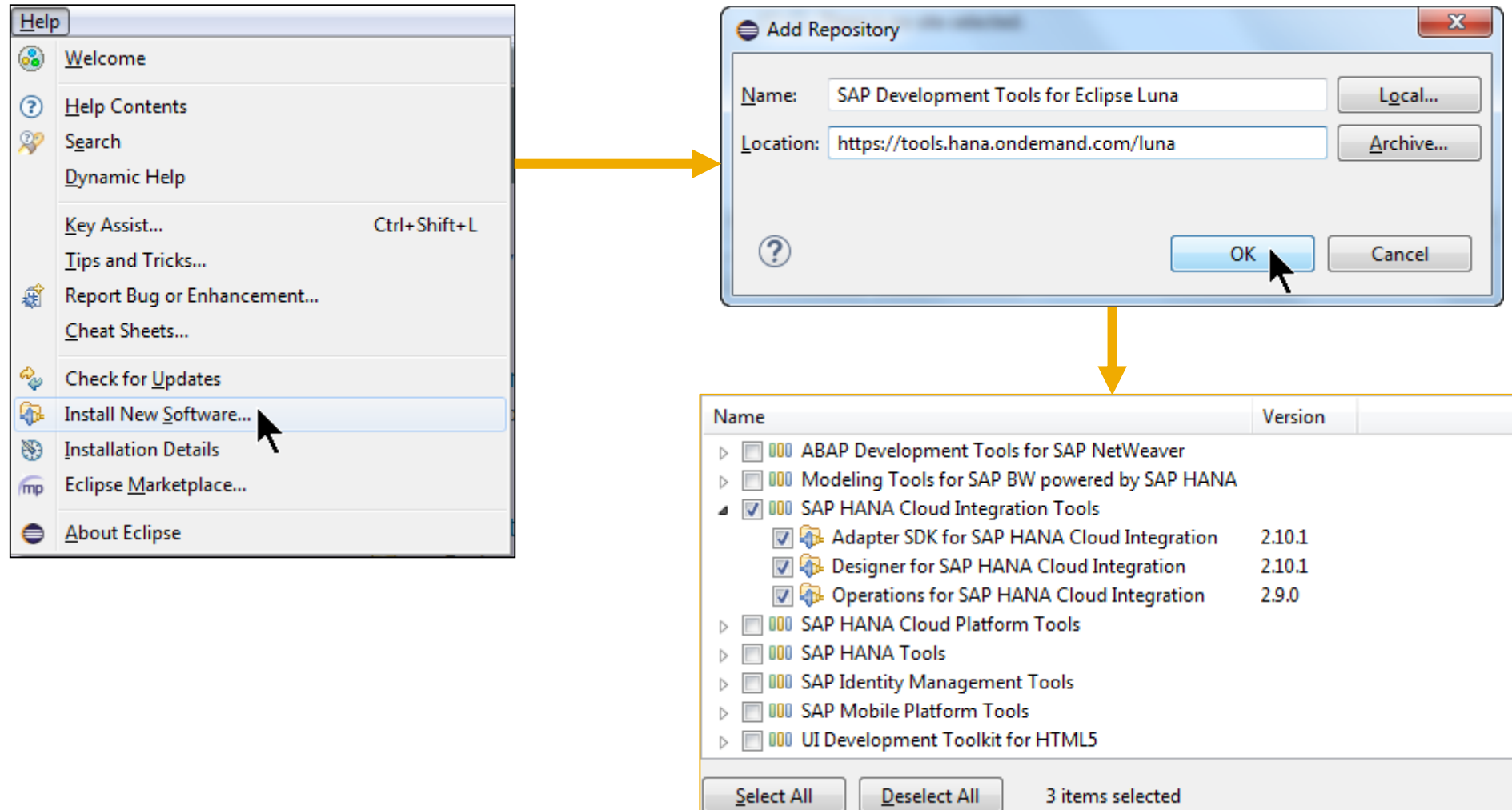
The scenario



... using your own CMIS adapter

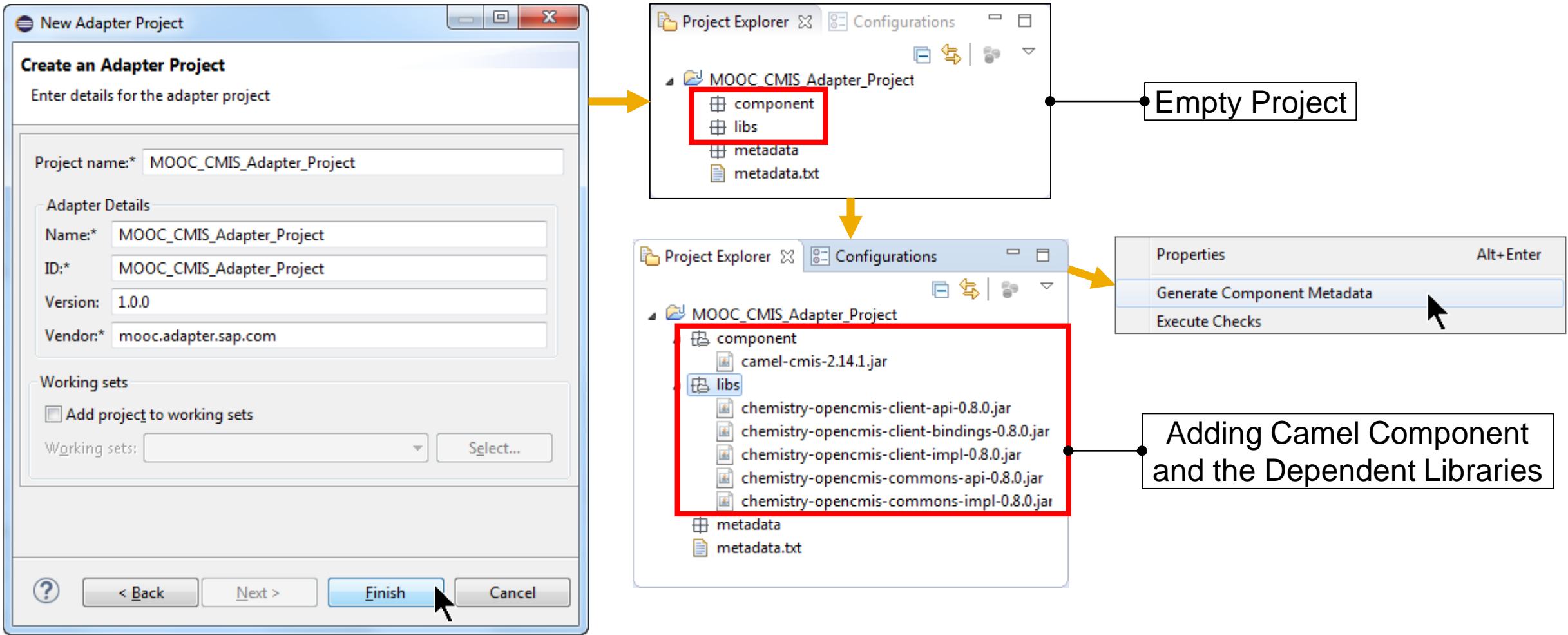
The Adapter Development Kit

Installing the Adapter Development Kit in Eclipse Luna



The Adapter Development Kit

Creating an adapter development project



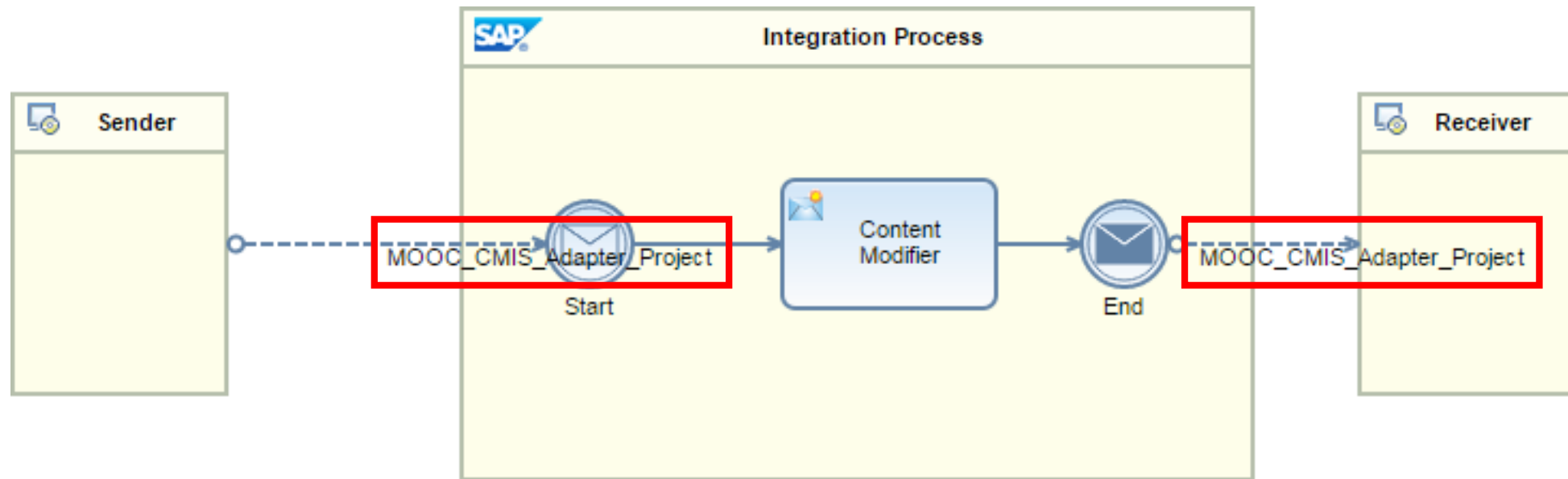
The Adapter Development Kit

Automatically generated component metadata

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<ComponentMetadata ComponentId="ctype::Adapter/cname::mooc.adapter.sap.com:MOOC"
  <Variant VariantName="C MIS Component Sender" gen:RuntimeComponentBaseUri="
    <InputContent Cardinality="1" Scope="outsidepool" MessageCardinality="1"
      <Content>
        <ContentType>Any</ContentType>
        <Schema xsi:type="xs:string" xmlns:xs="http://www.w3.org/2001/XMLSchema"
      </Content>
    </InputContent>
    <OutputContent Cardinality="1" Scope="outsidepool" MessageCardinality="1"
      <Content>
        <ContentType>Any</ContentType>
        <Schema xsi:type="xs:string" xmlns:xs="http://www.w3.org/2001/XMLSchema"
      </Content>
    </OutputContent>
    <Tab id="connection">
      <GuiLabels guid="b5b467da-44c7-4d2e-86c3-a3cbf2d05dc4">
        <Label language="EN">Connection</Label>
        <Label language="DE">Connection</Label>
      </GuiLabels>
      <AttributeGroup id="defaultUriParameter">
        <Name xsi:type="xs:string" xmlns:xs="http://www.w3.org/2001/XMLSchema"
        <GuiLabels guid="dbdcf67f-7404-46d2-bbf9-150df525fdb8">
          <Label language="EN">URI Setting</Label>
          <Label language="DE">URI Setting</Label>
        </GuiLabels>
        <AttributeReference>
          <ReferenceName>firstUriPart</ReferenceName>
          <description>Configure First URI Part</description>
        </AttributeReference>
      </AttributeGroup>
      <AttributeGroup id="CMISEndpoint">
        <Name xsi:type="xs:string" xmlns:xs="http://www.w3.org/2001/XMLSchema"
        <GuiLabels guid="e7735aa9-3526-4523-a332-d86ff581cf0a">
          <Label language="EN">C MIS Endpoint</Label>
          <Label language="DE">C MIS Endpoint</Label>
        </GuiLabels>
        <AttributeReference>
          <ReferenceName>queryMode</ReferenceName>
          <description>Configure Query Mode</description>
        </AttributeReference>
      </AttributeGroup>
      <AttributeGroup id="CMISessionFacade">
        <Name xsi:type="xs:string" xmlns:xs="http://www.w3.org/2001/XMLSchema"
        <GuiLabels guid="1b446ba1-2ced-4360-b798-0799810f13cf">
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        </GuiLabels>
        <AttributeReference>
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        </AttributeReference>
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        </AttributeReference>
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        <AttributeReference>
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          <description>Configure Run Logging Level</description>
        </AttributeReference>
        <AttributeReference>
          <ReferenceName>backoffErrorThreshold</ReferenceName>
          <description>Configure Backoff Error Threshold</description>
        </AttributeReference>
      </AttributeGroup>
    </Tab>
  </Variant>
</ComponentMetadata>
```

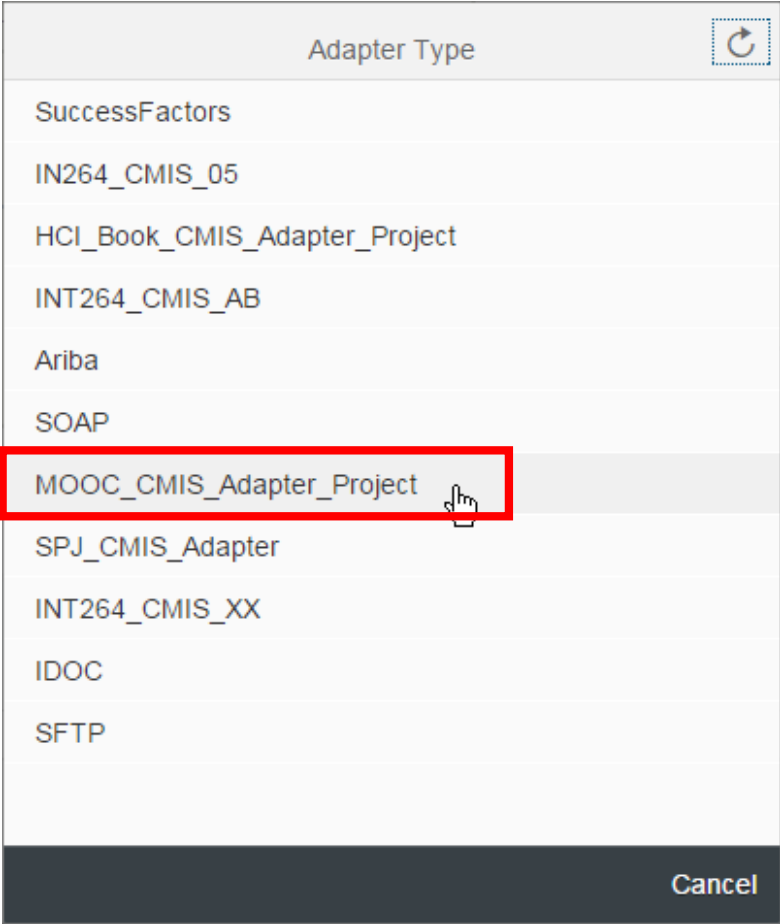
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The integration flow



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New adapter appears in list of available adapters



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Configuration of sending CMIS adapter

MOOC_CMIS_Adapter_Project

General **Connection**

URI SETTING

First URI Part:

C MIS ENDPOINT

☐ Query Mode

C MIS SESSION FACADE

Password:

☒ Read Content

Query:

Repository Id:

Page Size:

Read Count:

Username:

SCHEDULED POLL CONSUMER

Backoff Multiplier:

Compare with red box
on slide 6

The Adapter Development Kit

Configuration of receiving CMIS adapter

MOOC_CMIS_Adapter_Project

General

Connection

URI SETTING

First URI Part:

https://cmis.alfresco.com/api/-default-/public/cmisis/versions/1.0/atom

C MIS ENDPOINT

☐ Query Mode

C MIS SESSION FACADE

Password:

☐ Read Content

Query:

Repository Id:

-default-

Page Size:

100

Read Count:

Username:

admin

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Configuration of Content Modifier

Content Modifier

Message Header

Message Body

Exchange Property

Header

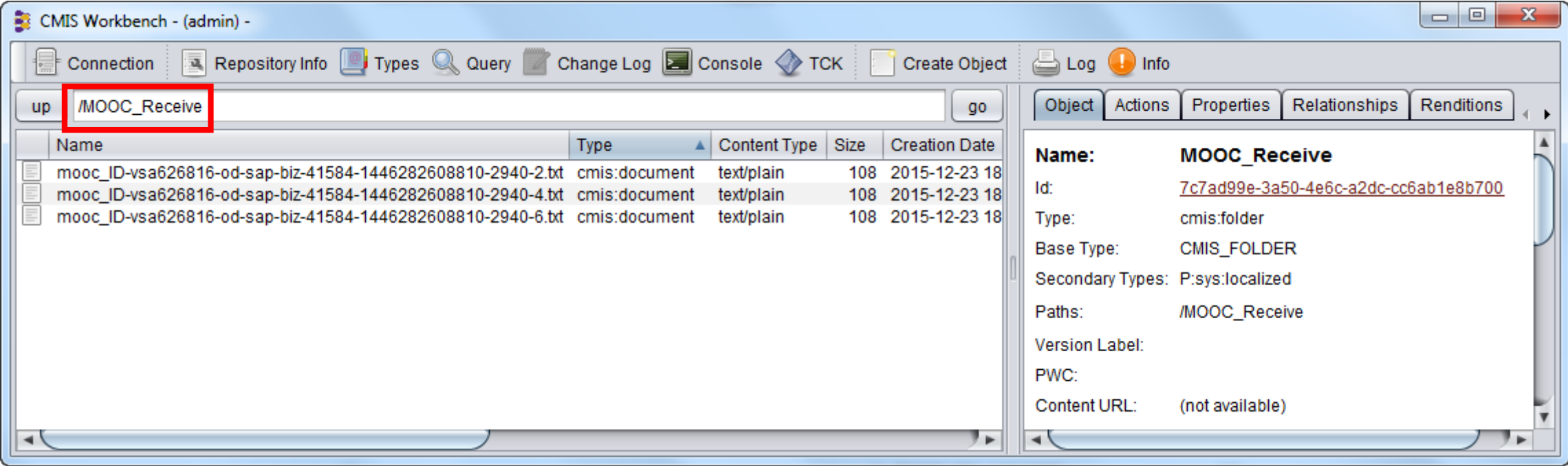
Add

Delete

<input type="checkbox"/> Name:	Type	Value	
<input type="checkbox"/> cmis:name	Expression	mooc_\${exchangeId}.txt	
<input type="checkbox"/> Content-Type	Constant	text/plain	
<input type="checkbox"/> CamelCMISFolderPath	Constant	/MOOC_Receive	

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Execution of integration flow: Copied files in the Receive folder



The Adapter Development Kit

Demo

DEMO

The Adapter
Development Kit



The Adapter Development Kit

What you've learned in this unit

- How to prepare yourself for adapter development by installing the Adapter Development Kit (ADK) inside Eclipse
- How to apply the ADK for generating wrapper code around an already existing Apache Camel component
- What the Content Management Interoperability Services (CMIS) standard is all about, and how to connect and access documents on the publically available Alfresco CMIS server using the newly developed adapter
- How the overall adapter development lifecycle works, so that this knowledge can easily be applied to other connectivity needs





Thank you

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