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Integrating IBM Business Process Manager with Enterprise Content Management

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John Reynolds, IBM BPM Product Line Manager, Business User Empowerment

IBM IMPACT 2013 Conference – Session 2191

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Speaker

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Abstract

Successful BPM initiatives involve leveraging, integrating and collaborating across people, processes and information. In this session, learn how IBM BPM can be used to create process applications that link together processes and their related folders and documents.

This session will explore the IBM BPM capabilities that enable business process applications and the related end-user experiences where content plays a critical role, including an overview of integration with ECM systems based on the CMIS standard.

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Integration with Enterprise Content Management

- **Introduction**
  - Smarter Process – IBM Business Process Manager 8.5
  - BPM Integration with Enterprise Content Management
- Working with Documents and Folders
- Consuming Content Events
- Consistent Document Management
- Demo
- Summary

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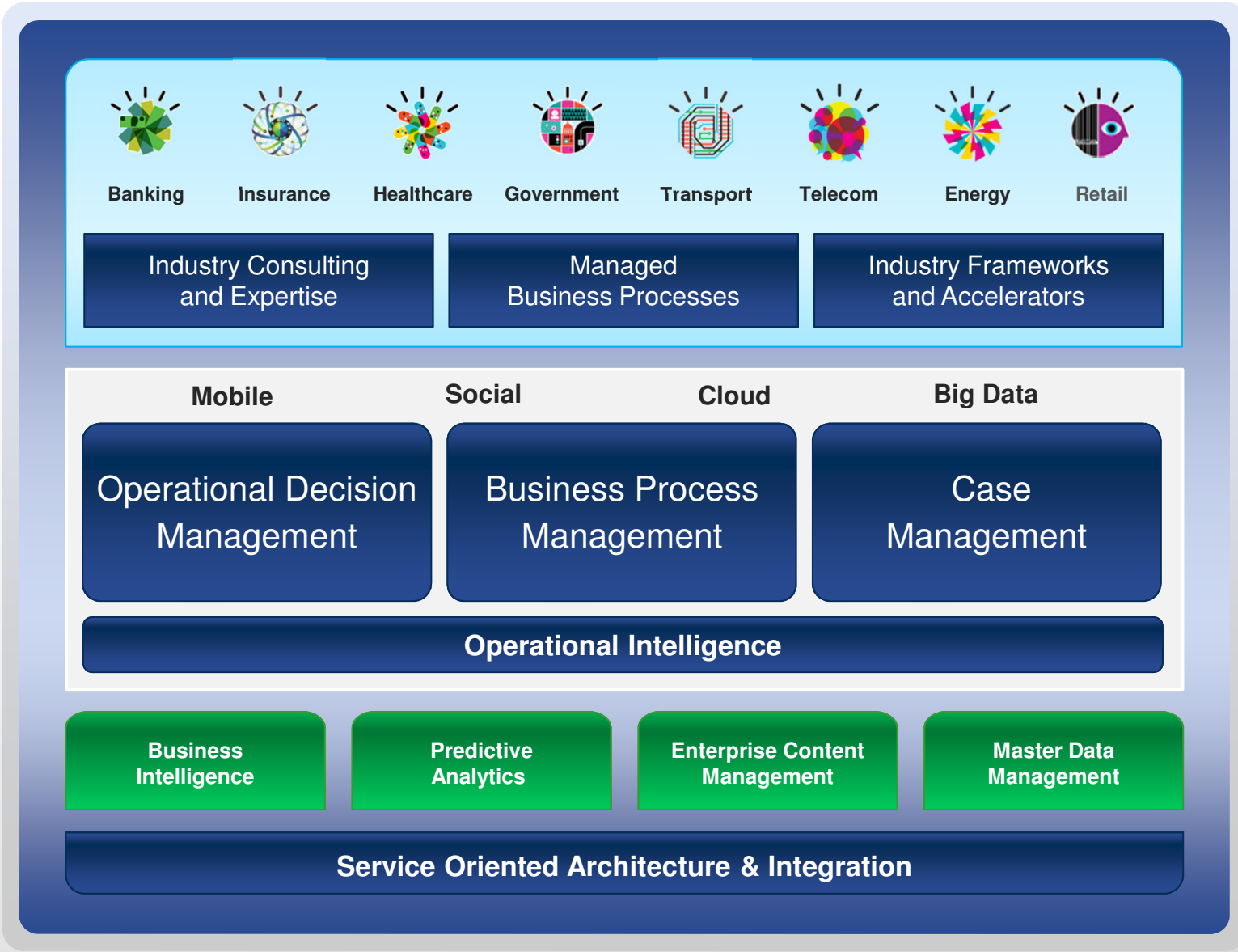
Key IBM capabilities for Smarter Process



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New Capabilities in IBM Business Process Manager 8.5

Next Generation Dashboards

Mobile

Social / Collaboration

Blueworks Live Integration

Internal Content Repository

Cloud

Instant **Seamless** **Insightful**

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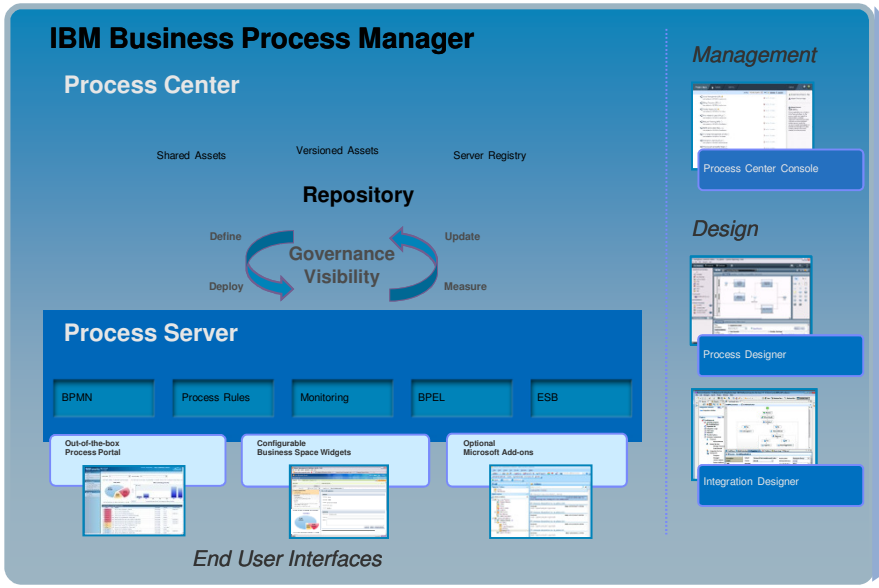
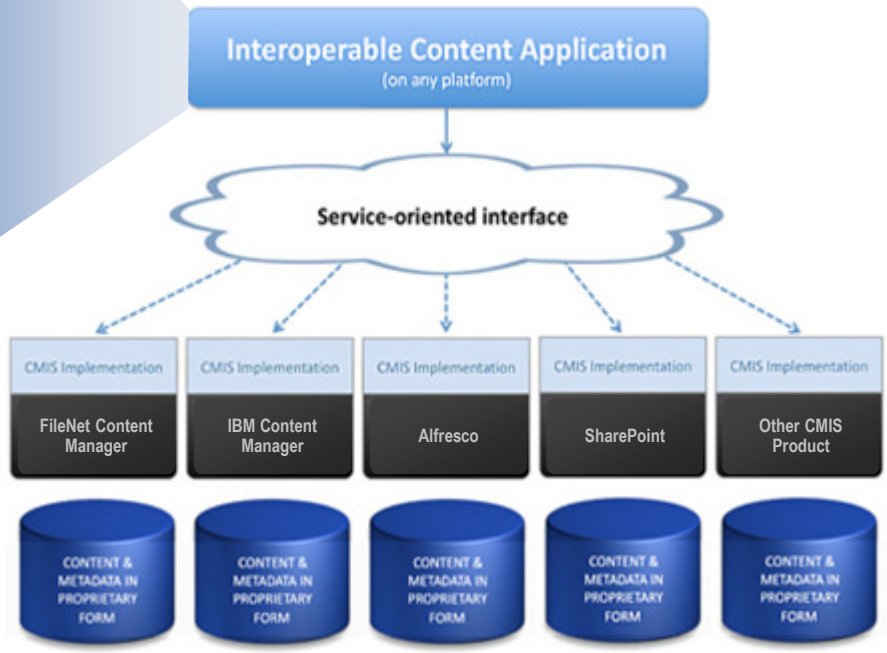
Integration with Enterprise Content Management



Incorporate **documents/folders** into BPM process applications
Consume **events** that occurred in ECM systems



CMIS

Support access to common ECM systems by leveraging the **Content Management Interoperability Services** (CMIS) standard

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Integration with Enterprise Content Management

- Introduction
- **Working with Documents and Folders**
  - Defining ECM server properties
  - Using BPM Business Objects for BPM Variables
  - Using the Content Integration Step in Services
  - Configuring the Document List Coach View
  - Detailed Setup of the Search Operation
  - End User Experience with Coach Views
- Consuming Content Events
- Consistent Document Management
- Demo
- Summary

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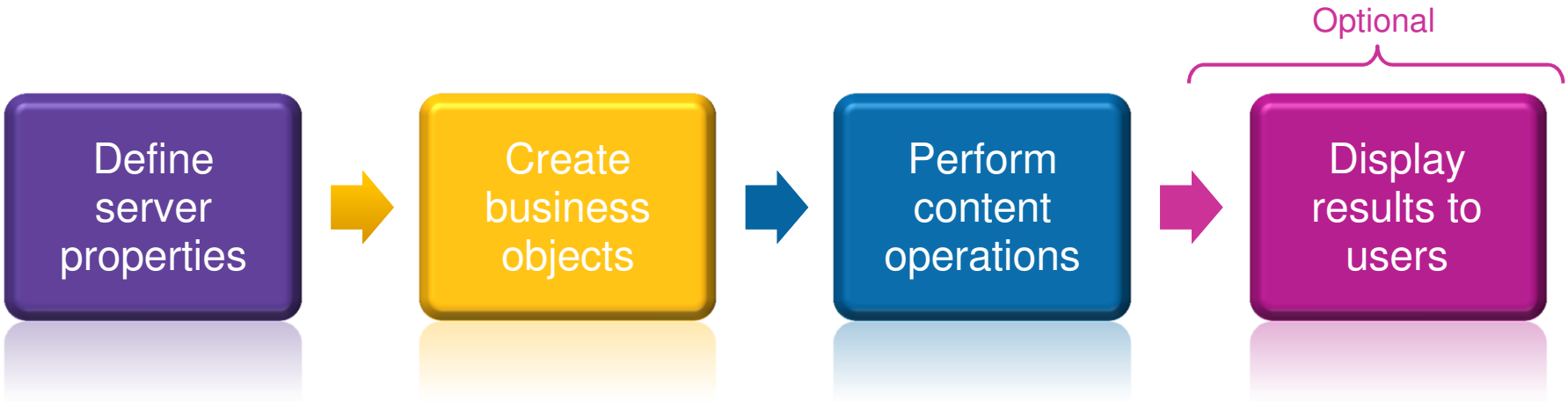
Working with Documents and Folders (BPM 8.0)

- Incorporate documents/content from ECM repositories into IBM BPM process applications



- Support access to common Enterprise Content Management (ECM) systems by leveraging the Content Management Interoperability Services (CMIS) standard

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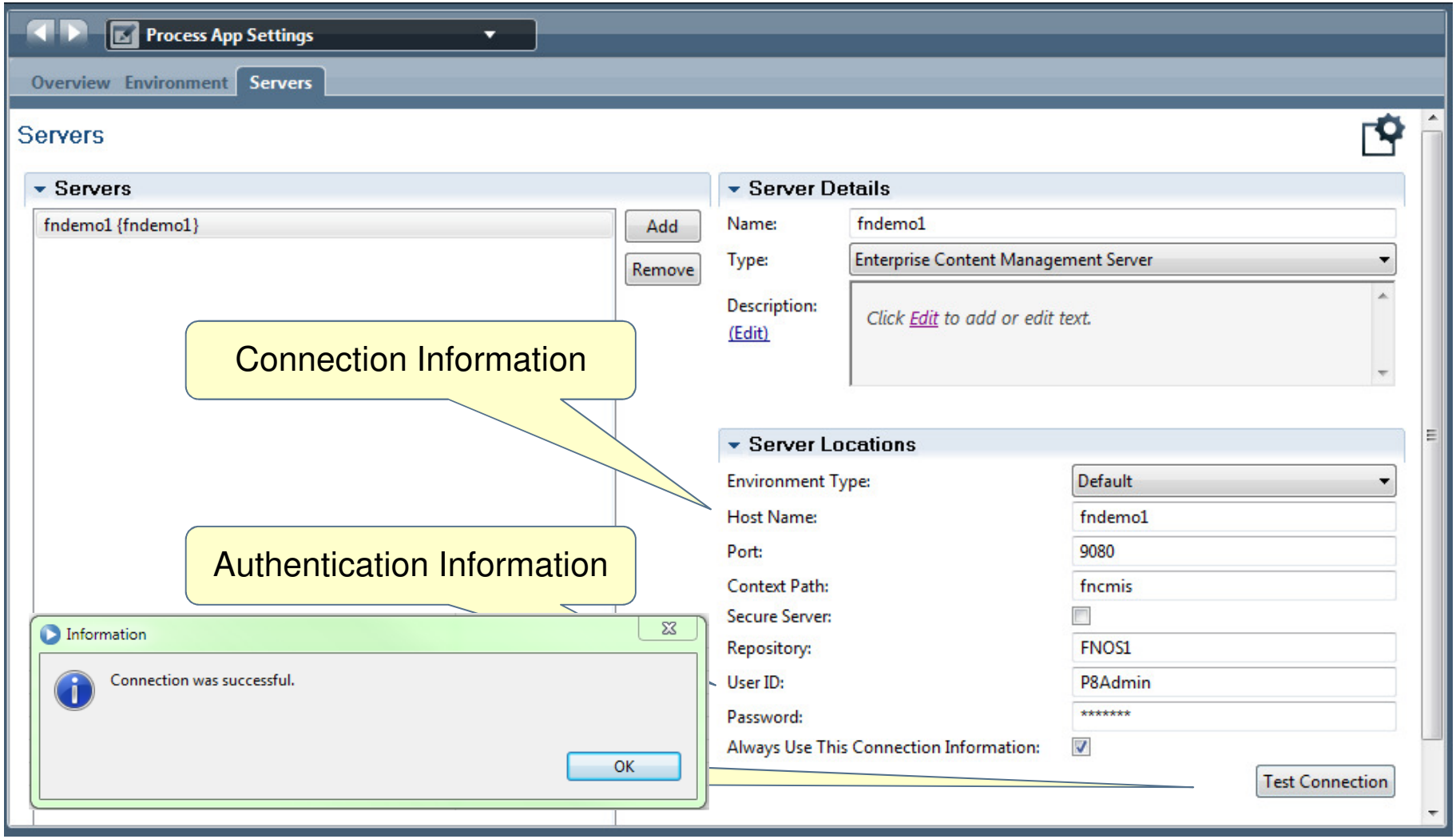
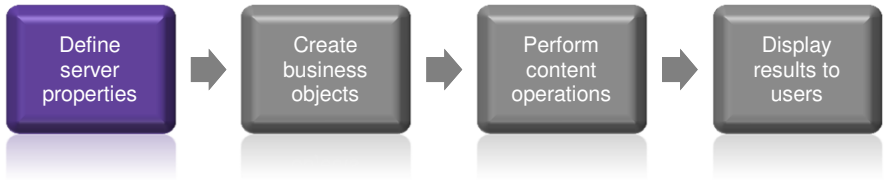
Defining ECM Server Properties





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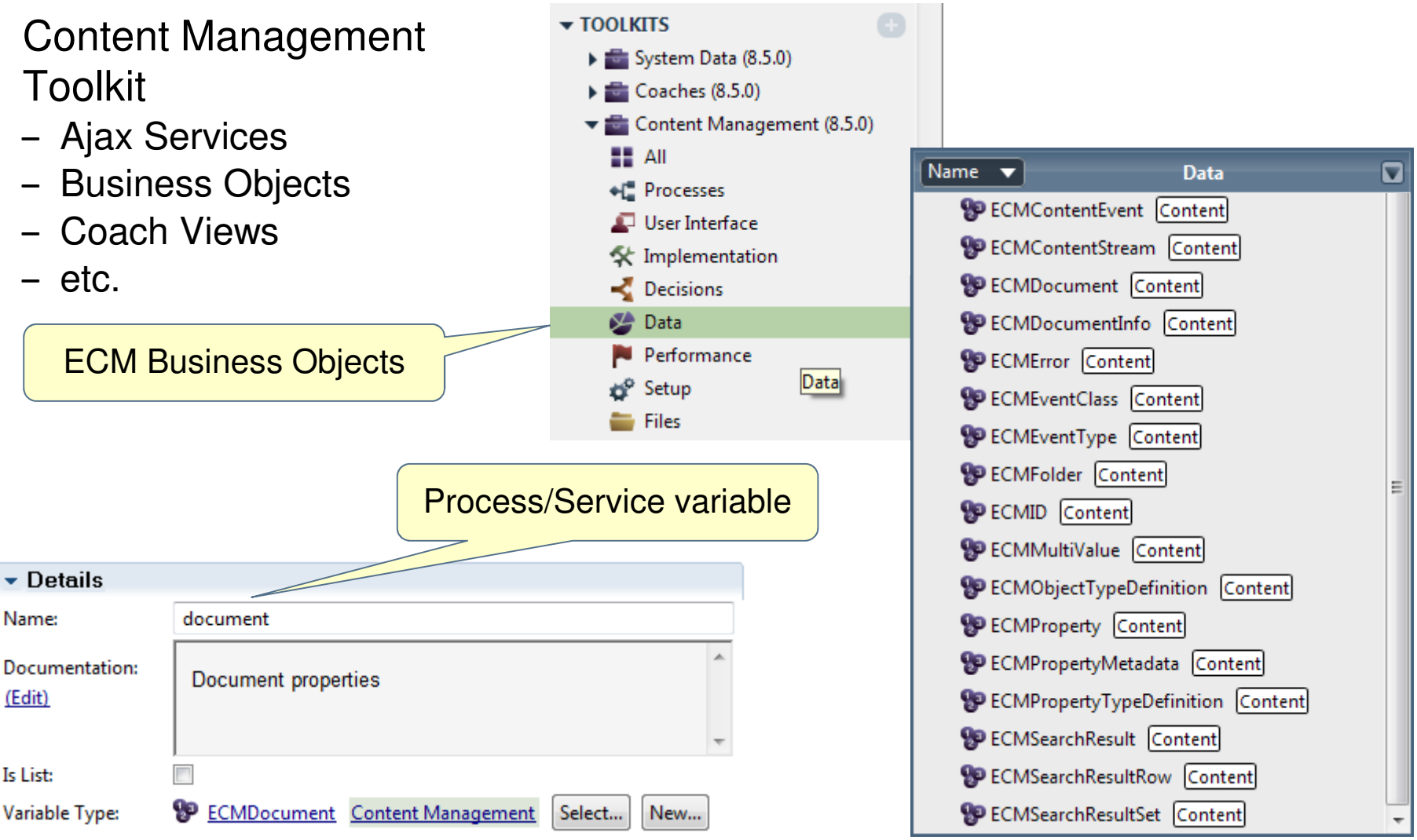
ECM Business Objects

- Content Management Toolkit
  - Ajax Services
  - Business Objects
  - Coach Views
  - etc.



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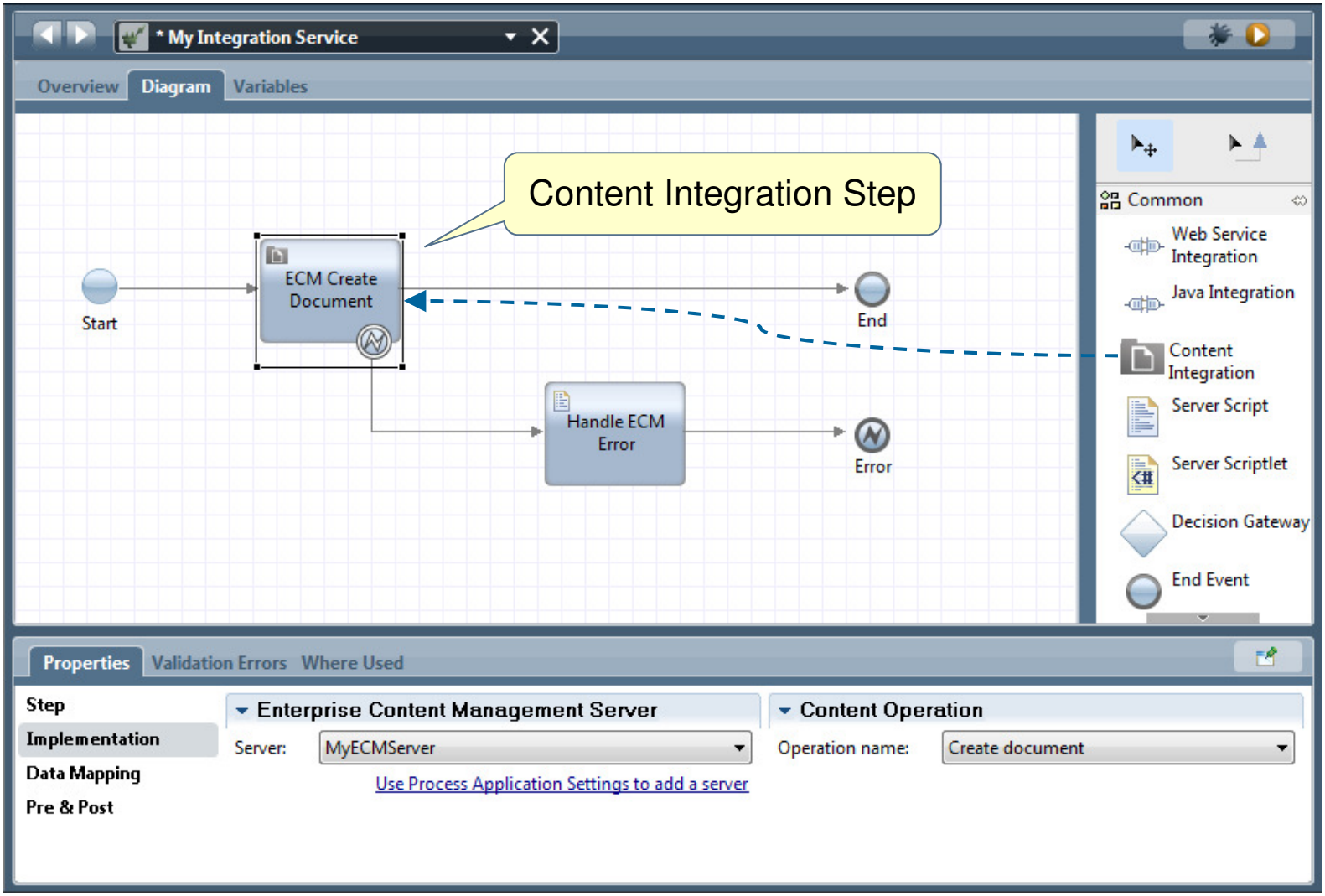
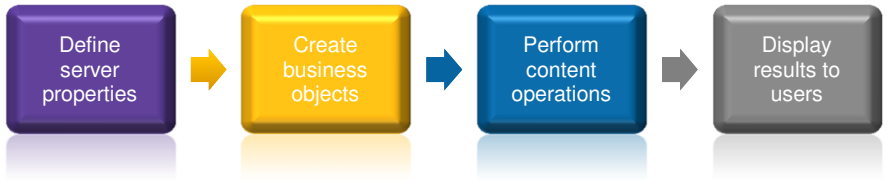
Using the Content Integration Step in Services





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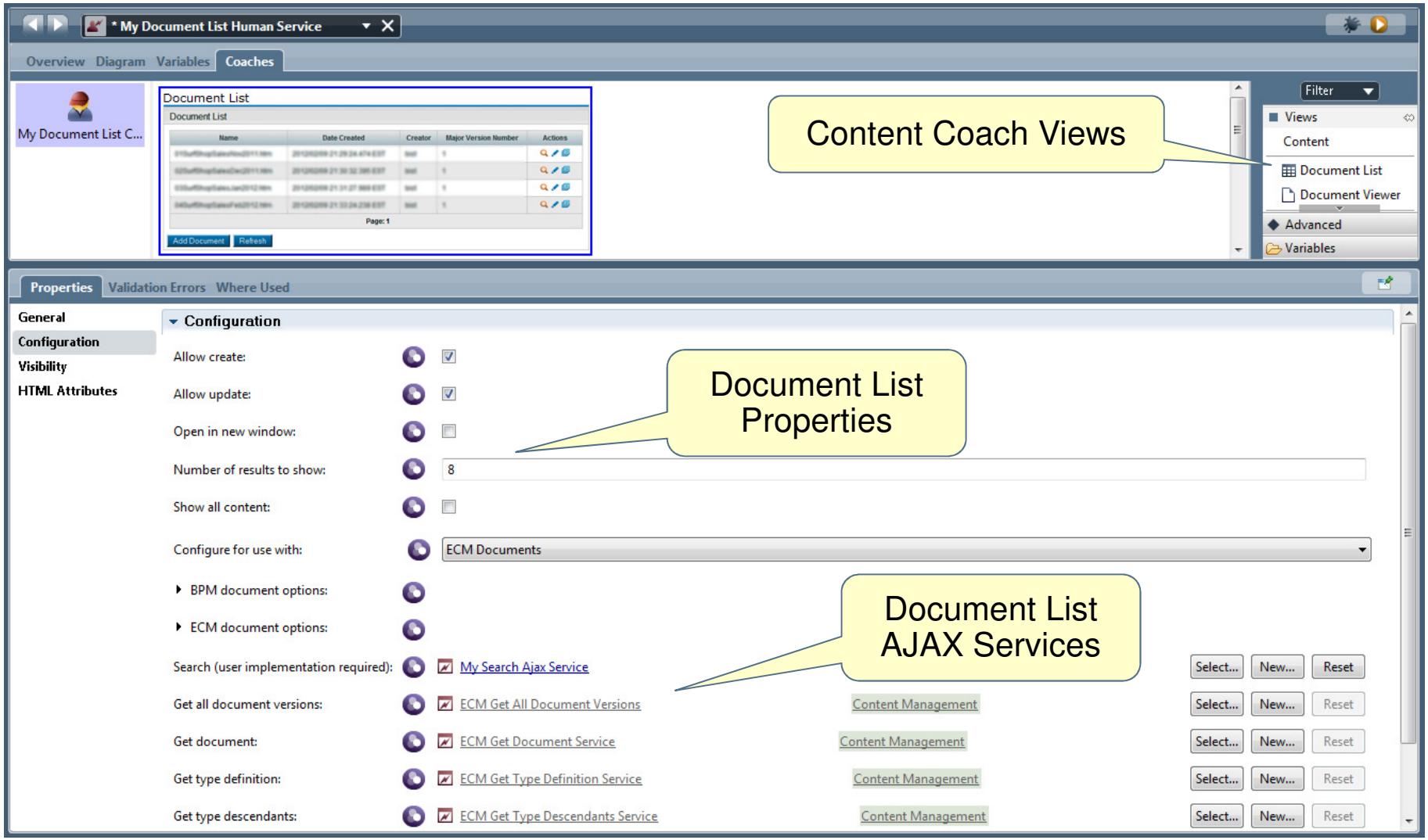
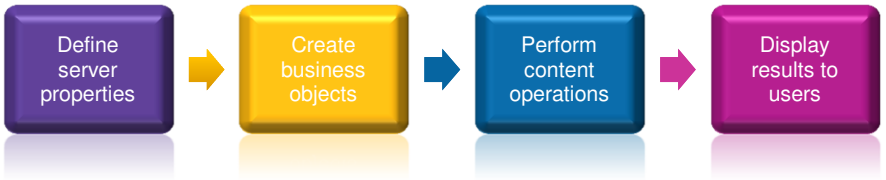
Configuring the Document List Coach View





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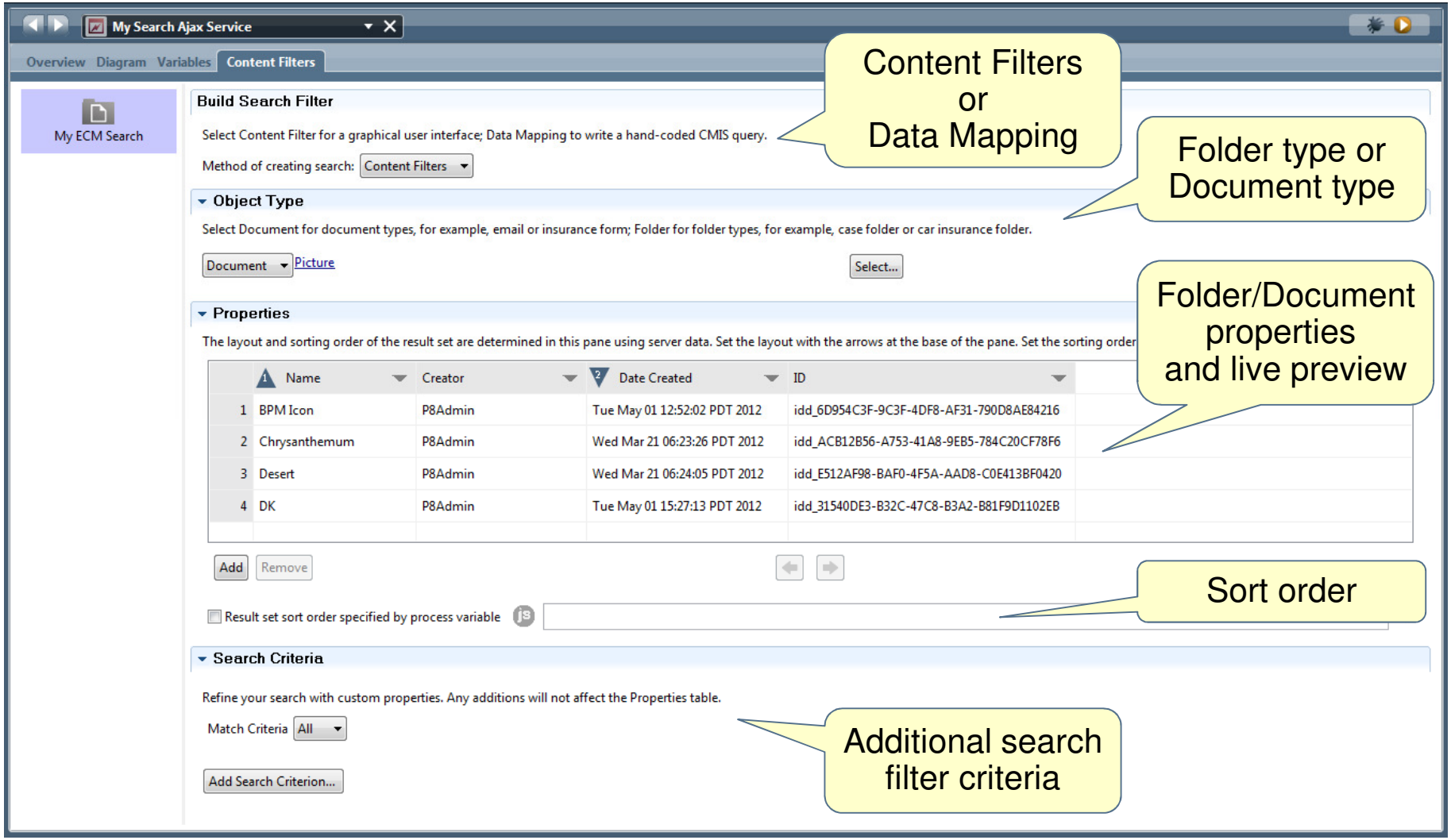
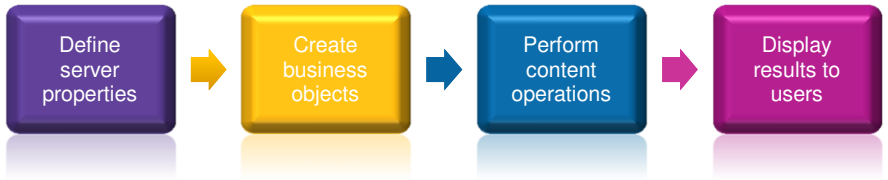
Detailed Setup of the Search Operation





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End User Experience with Coach Views

Document List 1

Name	Creator	Date Created	Actions
Jellyfish	P8Admin	2012/03/21 06:24:50.423 PDT	
Koala	P8Admin	2012/03/21 06:25:15.937 PDT	
Lighthouse	P8Admin	2012/03/21 06:25:37.977 PDT	
Penguins	P8Admin	2012/03/21 06:26:02.873 PDT	
Tulips	P8Admin	2012/03/21 06:26:25.523 PDT	

◂ Back Page: 2

Create Document Refresh

Document Viewer 1

Open in new window

Close

Document List Actions
Create / Update / View

Document Viewer

Define server properties → Create business objects → Perform content operations → Display results to users

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ECM Operations

Operation name	Description
Add document to folder	Add an existing document to a folder
Cancel check-out document	Reverse the effect of a check-out
Check-in document	Check-in the private working copy of a document
Check-out document	Create a private working copy of the document
Copy document	Create a document as a copy of the given source document
Create document	Create a document of the specified type
Create folder	Create a folder of the specified type
Delete document	Delete the specified document
Delete folder	Delete the specified folder
Get all document versions	Get the list of all documents in the specified version series
Get document	Get the specified information for the document
Get document content	Get the content stream for the specified document
Get documents in folder	Get the set of documents contained in the specified folder
Get folder	Get the specified information for the folder
Get folder by path	Get the specified folder
Get folder tree	Get the set of folders contained in the specified folder or its subfolders
Get type definition	Get the definition of the specified folder or document
Get type descendants	Get the set of descendant types defined for the specified folder or document type
Move document	Move the specified document from one folder to another
Move folder	Move the specified folder from one folder to another
Remove document from folder	Remove an existing document from a folder
Search	Execute a CMIS query statement against the contents of the repository
Set document content	Set the content stream for the specified document object
Update document properties	Update properties of the specified document

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Integration with Enterprise Content Management

- Introduction
- Working with Documents and Folders
- **Consuming Content Events**
  - Overview
  - Creating Content Event Subscriptions
  - Integration Service Started by a Content Event
  - Content Event consumed in a Process or Subprocess
- Consistent Document Management
- Demo
- Summary

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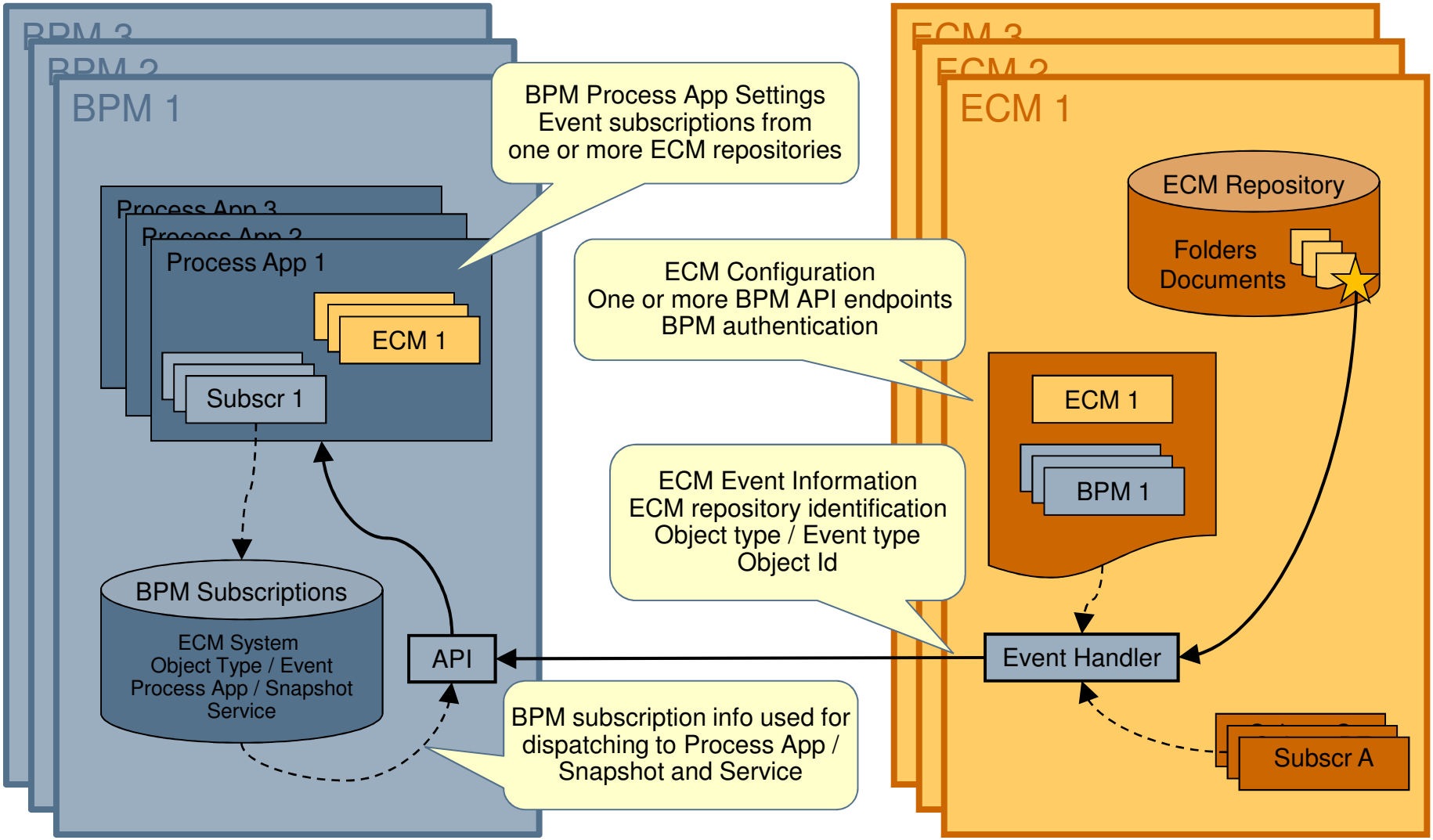
Consuming Content Events (BPM 8.0.1)



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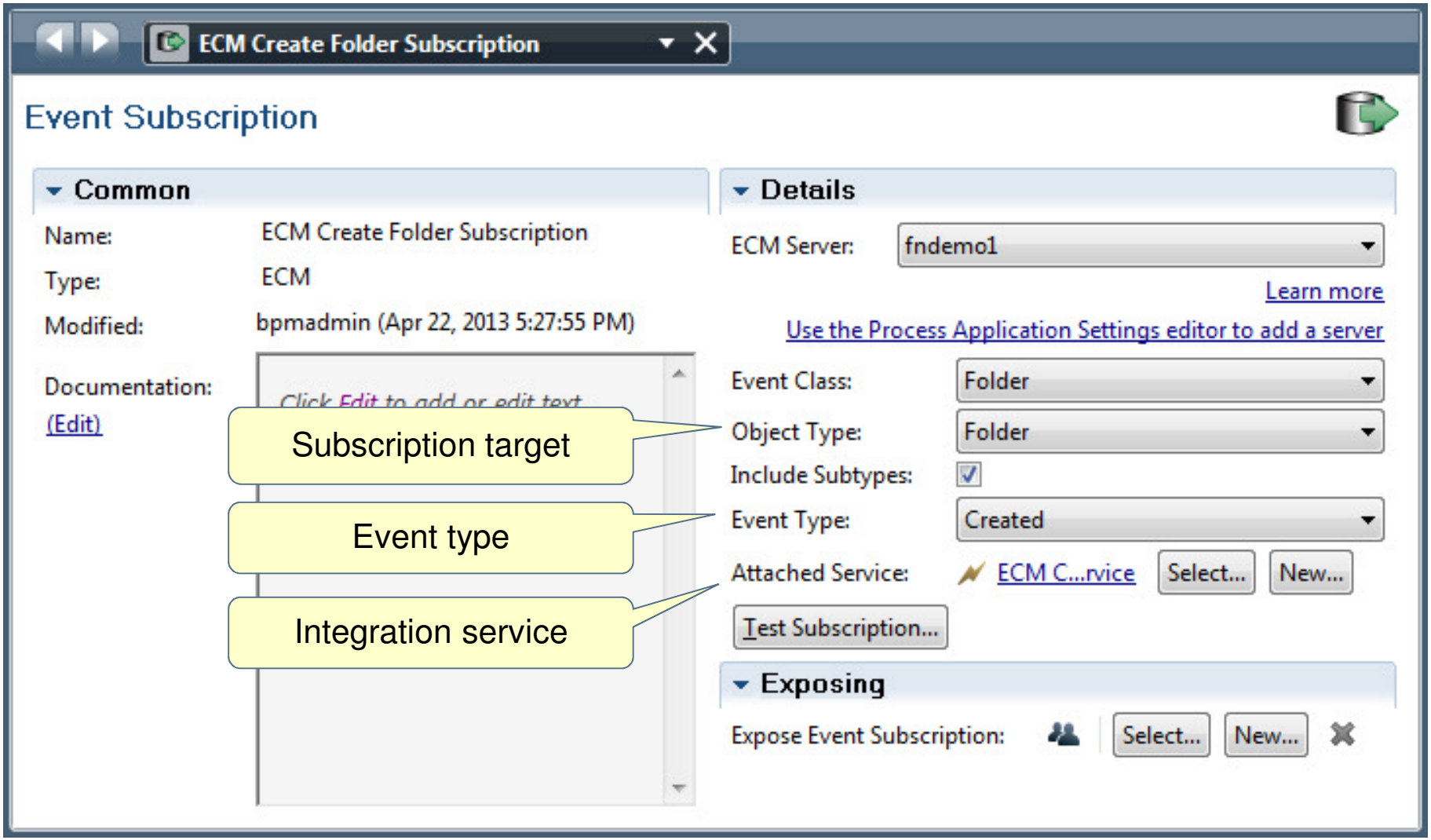
Creating Content Event Subscriptions



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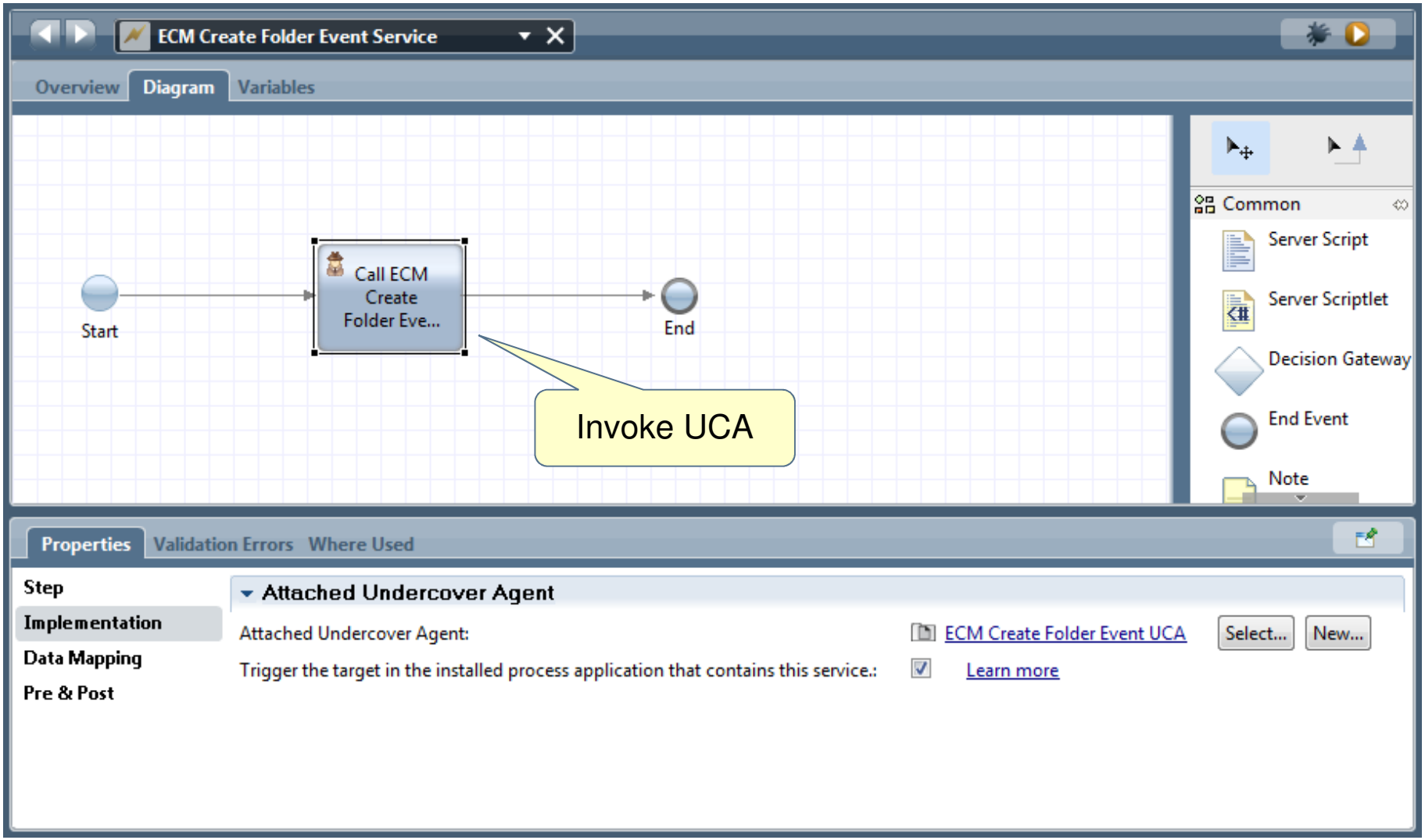
Integration Service Invoking a Process



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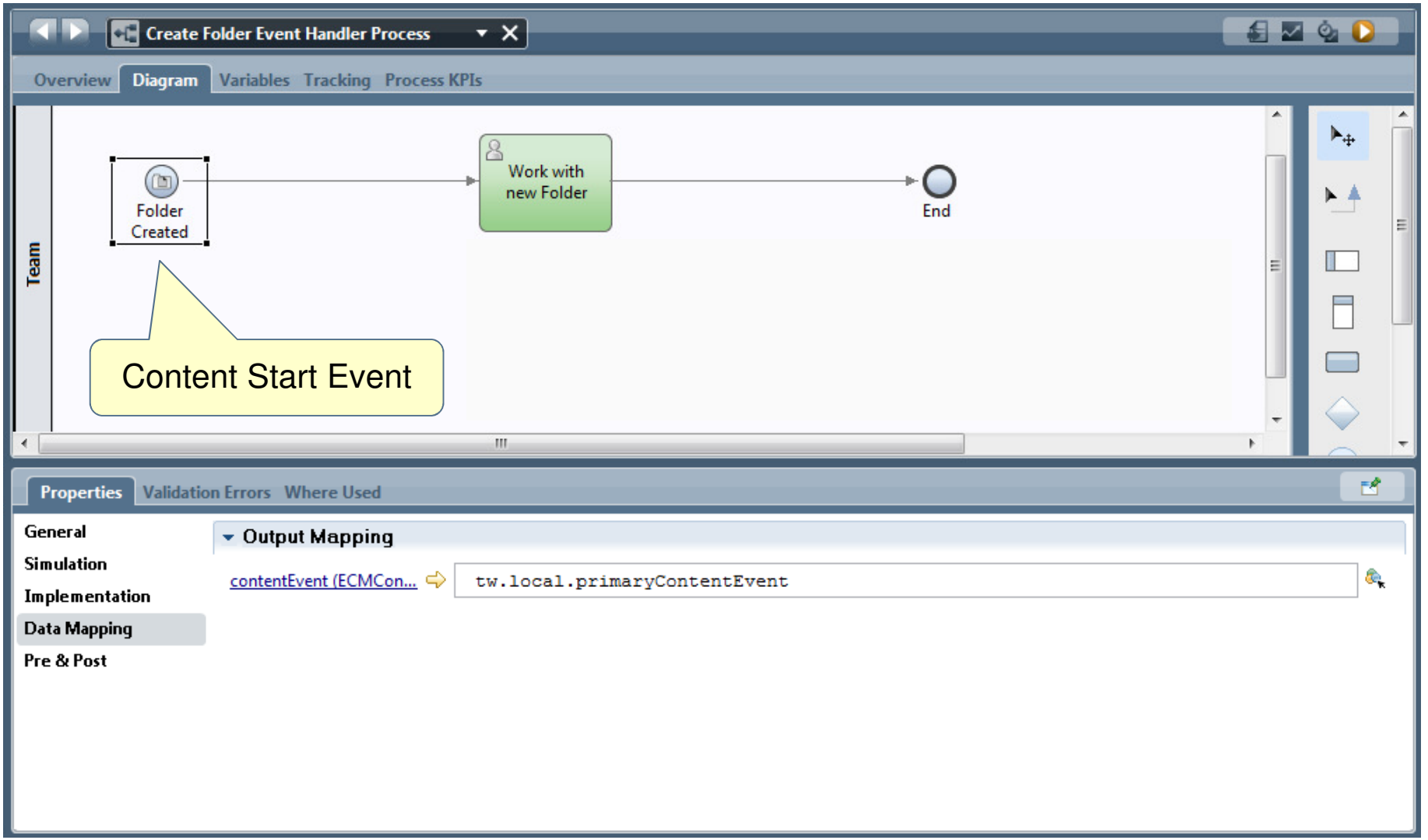
Content Event Starting a Process



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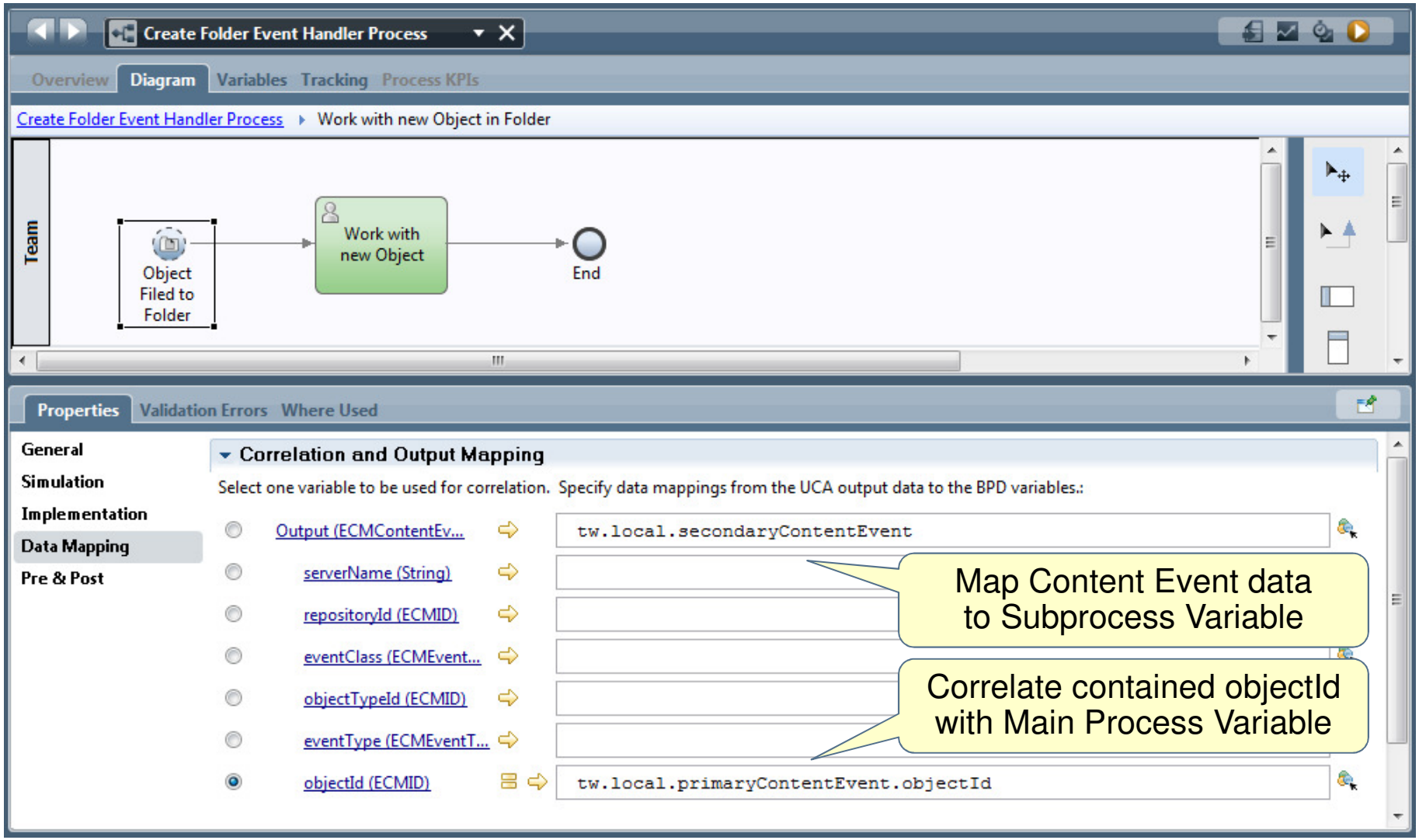
Content Event Starting an Event Subprocess



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Types of Content Events

ECM Event (abstract name)	Applicable ECM Object	IBM FileNet Content Manager	IBM Content Manager	Microsoft SharePoint
Check Out Canceled	Document	CancelCheckoutEvent	(not supported)	ItemUncheckedOut
Checked In	Document	CheckinEvent	Checkin	ItemCheckedIn
Checked Out	Document	CheckoutEvent	Checkout	ItemCheckedOut
Class Changed	Folder, Document	ChangeClassEvent	(not supported)	(not supported)
Classify Completed	Document	ClassifyCompleteEvent	(not supported)	(not supported)
Created	Folder, Document	CreationEvent	Create item	ItemAdded
Deleted	Folder, Document	DeletionEvent	Delete item	ItemDeleted
Filed	Folder	FileEvent	Add item to folder	(not supported)
Frozen	Document	FreezeEvent	(not supported)	(not supported)
Locked	Folder, Document	LockEvent	(not supported)	(not supported)
Publish Completed	Document	PublishCompleteEvent	(not supported)	(not supported)
Publish Requested	Document	PublishRequestEvent	(not supported)	(not supported)
Security Updated	Folder, Document	UpdateSecurityEvent	(not supported)	(not supported)
State Changed	Document	ChangeStateEvent	(not supported)	(not supported)
Unfiled	Folder	UnfileEvent	Remove item from folder	(not supported)
Unlocked	Folder, Document	UnlockEvent	(not supported)	(not supported)
Updated	Folder, Document	UpdateEvent	Update item	ItemUpdated
Version Demoted	Document	DemoteVersionEvent	(not supported)	(not supported)
Version Promoted	Document	PromoteVersionEvent	(not supported)	(not supported)

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Integration with Enterprise Content Management

- Introduction
- Working with Documents and Folders
- Consuming Content Events
- **Consistent Document Management**
  - Overview
  - Document List View with BPM Documents
  - Content Event Subscription for BPM Documents
- Demo
- Summary

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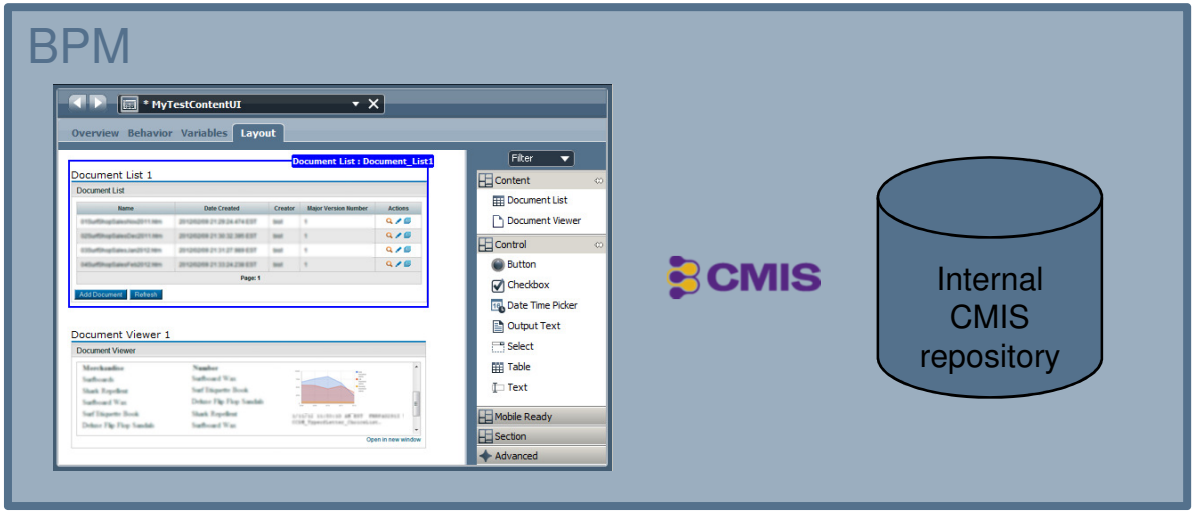
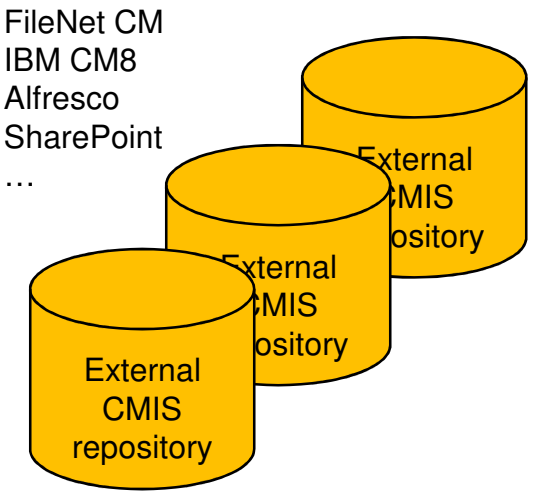
Consistent Document Management (BPM 8.5)

- Heritage coaches have built-in support for document attachments, stored in the BPM database
- Coaches NG in BPM 8.0 did not address document attachment support
- IBM BPM 8.5 introduces the internal document store, providing a consistent document management for external and internal document stores





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Document Type IBM_BPM_Document

Property	Type	Description
IBM_BPM_Document_DocumentId	Integer	Numeric document identifier exposed in BPM
IBM_BPM_Document_ParentDocumentId	Integer	Numeric document identifier of the parent document exposed in BPM
IBM_BPM_Document_FileType	String	Indicates whether the document contains ("FILE") or references ("URL") its content
IBM_BPM_Document_FileNameURL	String	File name of the original document or URL, recommended to set this
IBM_BPM_Document_HideInPortal	Boolean	Indicates whether the document should be hidden from Portal
IBM_BPM_Document_ProcessInstanceId	Integer	Process instance identifier, if set the document is associated to the life-cycle of the process instance, also only users allowed to view the process instance are then allowed to view the document content
IBM_BPM_Document_Properties	String[]	Additional properties of this document, key and value should be separated by the "," character
IBM_BPM_Document_UserId	Integer	Creator / last modifier of a document (keep current semantics)
IBM_BPM_Document_ContentMigrated	Boolean	Flag indicating whether the content is migrated to the ECM store or not. This property is not to be externally documented

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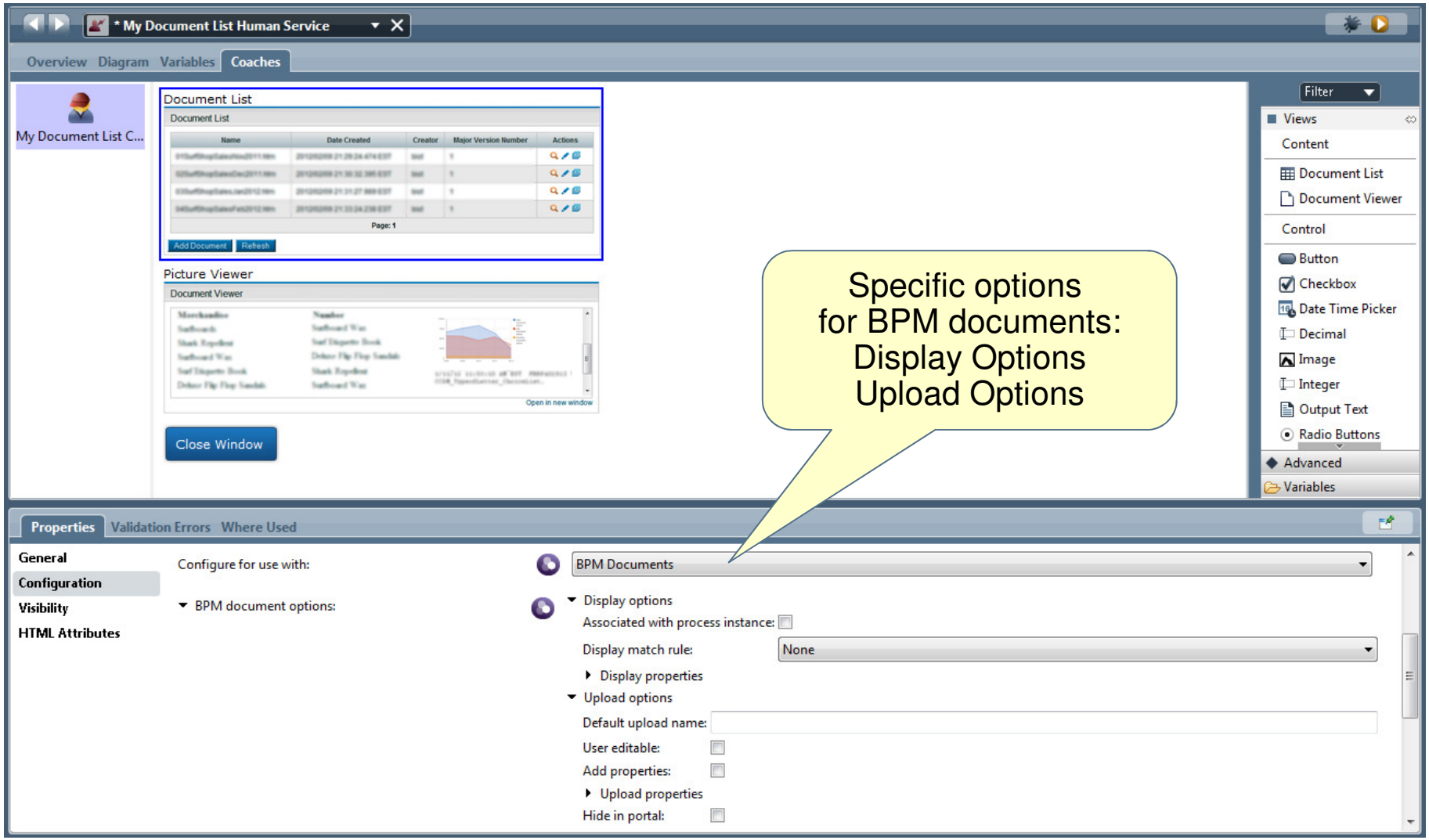
Document List View with BPM Documents



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Document List View with BPM Documents

IBM BPM Documents

Name	File name or URL	Major Version Number	Date Last Modified	Last Modifier	Actions
Bay Bridge	BayBridge.JPG	1	2013/04/20 20:50:33.874 CEST	bpmadmin	
Brooklyn Bridge	BrooklynBridge.JPG	1	2013/04/20 20:50:59.162 CEST	bpmadmin	
George Washington Bridge	GeorgeWashingtonBridge.jpg	1	2013/04/20 21:36:06.656 CEST	bpmadmin	
Golden Gate Bridge	GoldenGateBridge.JPG	1	2013/04/20 20:51:20.175 CEST	bpmadmin	
Harbor Bridge	HarborBridge.JPG	1	2013/04/20 20:51:40.424 CEST	bpmadmin	
Hohenzollern Bridge	HohenzollernBridge.JPG	1	2013/04/20 20:51:59.81 CEST	bpmadmin	
Oresund Bridge	OresundBridge.jpg	1	2013/04/20 21:19:23.200 CEST	bpmadmin	
Pont Du Gard	PontDuGard.JPG	1	2013/04/20 20:52:18.98 CEST	bpmadmin	
Ponte Vecchio	PonteVecchio.jpg	1	2013/04/20 21:19:03.823 CEST	bpmadmin	
Rialto Bridge	RialtoBridge.JPG	1	2013/04/20 20:52:34.649 CEST	bpmadmin	

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Create Document Refresh

Identical User Experience ☺

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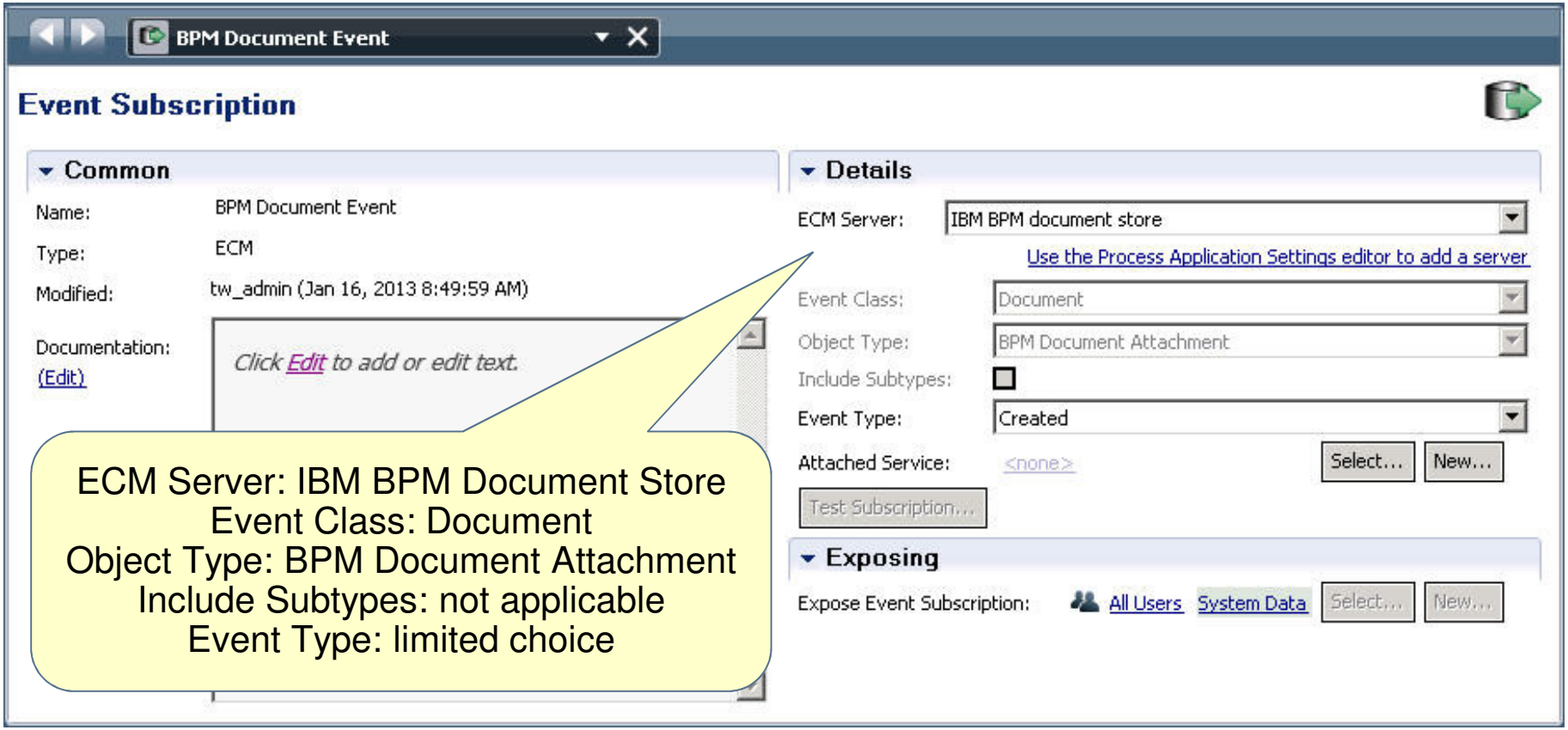
Content Event Subscription for BPM Documents



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Restrictions for BPM Documents

- Outbound ECM interactions limited to the following operations

ECM Operation	Description
Cancel check-out document	Reverse the effect of a check-out
Check-in document	Check-in the private working copy of a document
Check-out document	Create a private working copy of the document
Create document	Create a document of the specified type
Delete document	Delete the specified document
Get all document versions	Get the list of all documents in the specified version series
Get document	Get the specified information for the document
Get document content	Get the content stream for the specified document
Get type definition	Get the definition of the specified folder or document
Get type descendants	Get the set of descendant types defined for the specified folder or document type
Search	Execute a CMIS query statement against the contents of the repository
Set document content	Set the content stream for the specified document object
Update document properties	Update properties of the specified document

- Inbound ECM interactions limited to the following event types

ECM Event
Check Out Canceled
Checked In
Checked Out
Created
Deleted
Updated

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- **Demo**
- Summary

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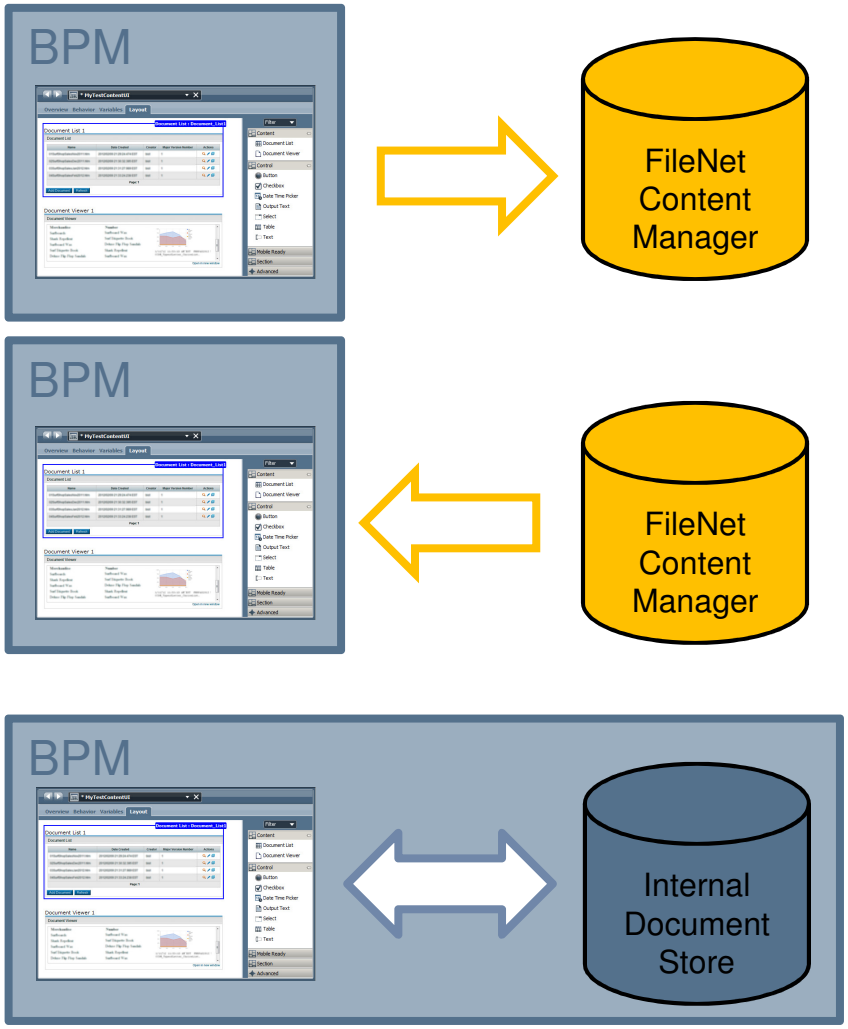
Integrating BPM with ECM – Demo Setup

- BPM and FileNet Content Manager
  - Working with Documents and Folders
    - Ajax Service with ECM Search operation
    - Human Service with Document List and Document Viewer
  - Consuming Content Events
    - FileNet Event Handler setup
    - Content Event Subscription
    - Service and BPD with Content Event
    - Correlation for Intermediate Events
- BPM Internal Document Store
  - Consistent Document Management
    - Human Service with Heritage Document Attachment control
    - Human Service with Document List and Document Viewer



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- **Summary**

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Summary

- Working with Documents and Folders (BPM 8.0)
  - BPM process applications invoke operations on documents and folders
  - Based on the Content Management Interoperability Services (CMIS) standard
- Consuming Content Events (BPM 8.0.1)
  - BPM process applications consume events from documents and folders
  - FileNet event handler provided
  - Open to any ECM product via published BPM API
- Consistent Document Management (BPM 8.5)
  - BPM internal store – same CMIS-based access as external ECM systems
  - Automatic document migration and compatibility with previous BPM versions

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BPM, Case & Operational Decision Management

- Hands-on experience lab sessions

Session #	Title	Schedule
1539	Hands-On Lab: Exploring IBM BPM for SAP Capabilities	Mon, 29/April, 02:30 PM - 03:30 PM Venetian - Murano 3205
		Thu, 2/May, 01:00 PM - 02:00 PM Venetian - Murano 3303
1365	Hands-On Lab: BPM & ODM Installation, Deployment and Usage Patterns in a Private Cloud	Mon, 29/April, 01:00 PM - 03:30 PM Venetian - Murano 3305
2856	Hands-On Lab: Building Business Rules and Events Applications Using IBM ODM or IBM ODM for z/OS	Thu, 2/May, 01:00 PM - 03:15 PM Venetian - Murano 3205
3047	Hands-On Lab: Integrate Dynamic Business Rules into Your Other Products to Extend Your Solution	Tue, 30/April, 01:00 PM - 03:30 PM Venetian - Murano 3305
		Wed, 1/May, 08:30 AM - 11:15 AM Venetian - Murano 3205
2554	Hands-On Lab: Introduction to IBM Business Process Manager	Tue, 30/April, 04:00 PM - 06:15 PM Venetian - Murano 3205
2567	Hands-On Lab: BPM to Go with Worklight and BPM	Wed, 1/May, 08:30 AM - 09:45 AM Venetian - Murano 3305
		Thu, 2/May, 10:15 AM - 11:15 AM Venetian - Murano 3301B
2850	Hands-On Lab: From Spreadsheet to Business Dashboard in 60 Minutes or Less!	Mon, 29/April, 01:00 PM - 02:15 PM Venetian - Murano 3205

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BPM, Case & Operational Decision Management

- Meet the Expert (MTE) Sessions in the Product Technology Center (Located on the 3rd floor of the Venetian Conference Center):

Session #	Title	Schedule
1752	IBM BPM for SAP	Wed, 1/May, 05:00 PM - 06:00 PM
3142	Smarter Process	Tue, 30/April, 10:15 AM - 11:15 AM Thu, 2/May, 08:45 AM - 09:45 AM
2149	Using IBM BPM and IBM Blueworks Live Together	Wed, 1/May, 03:45 PM - 04:45 PM
2657	The Doctor Is in the House: Operational Decision Manager Rules Open Hours	Mon, 29/April, 02:30 PM - 03:30 PM
2865	Business and Process Visibility with IBM Business Monitor	Mon, 29/April, 04:00 PM - 05:00 PM Thu, 2/May, 01:00 PM - 02:00 PM
3130	The Doctor Is in the House: BPM Open Hours	Tue, 30/April, 04:00 PM - 05:00 PM
3131	BPM Mobile	Tue, 30/April, 01:00 PM - 02:15 PM Wed, 1/May, 01:00 PM - 02:00 PM
1201	Rule Validation Approaches	Tue, 30/April, 02:30 PM - 03:30 PM

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  - Submit your feedback

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