



Introductions

- Zvi Fass - Rosetta Development Team Leader
 - In Ex Libris since 2006
 - Part of the Rosetta Development team since day one
 - Development Team Leader for the past two years

Objectives and Target Audience

- In this session we will learn how to Create, Configure and Deploy an External viewer
- Session Objective(s)
 - By the end of this session we will enable participants to build their own Rosetta viewer by understanding the following:
 - How to use the Rosetta's Delivery APIs as part of an External Viewer
 - When to use Rosetta's Viewer Pre Processor (VPP)
 - How the Delivery Configuration affects your viewers
- Session Target Audience:
 - Rosetta users with basic technical orientation

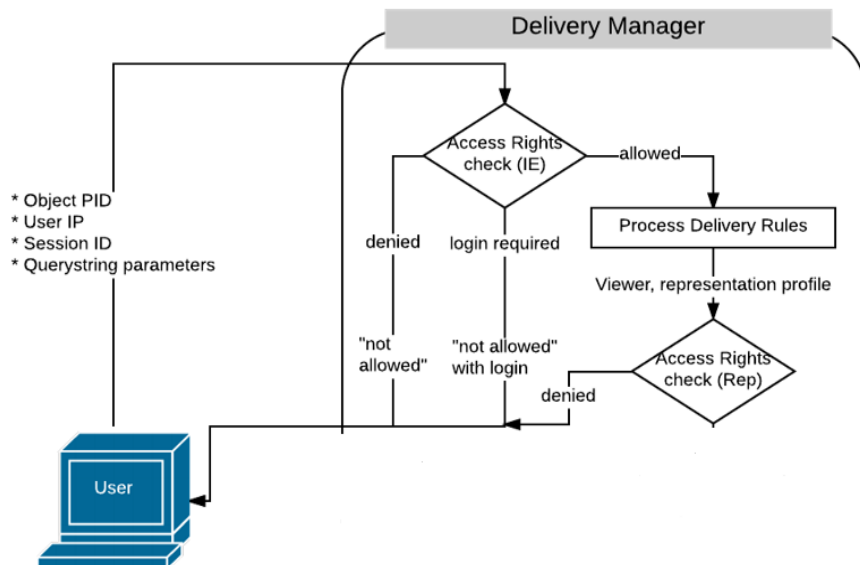
Agenda

- 1 Delivery overview
- 2 Viewer Pre Processor (VPP)
- 3 Delivery APIs
- 4 Delivery configuration + surprise!!
- 5 Hands-on

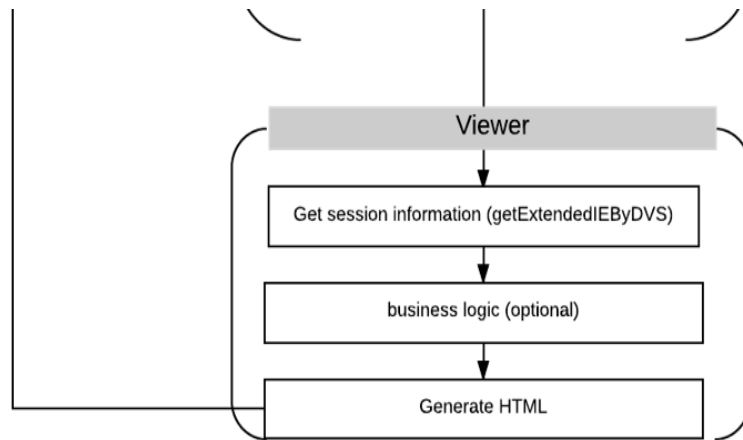
Delivery overview



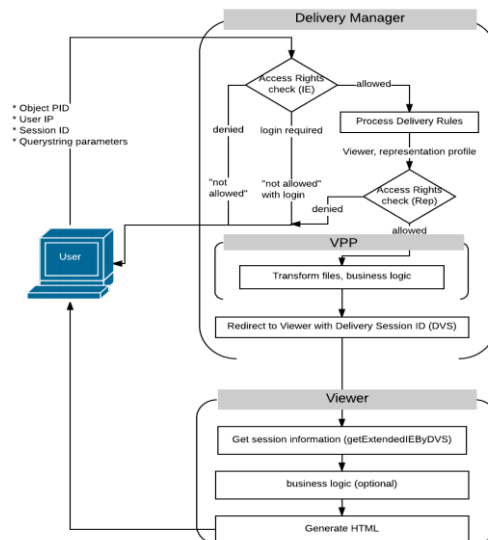
Delivery overview - how does it work?



Delivery overview - how does it work?



Delivery overview - how does it work?



Delivery overview - Viewer Types

Viewer Types:

File Viewer - Viewers that have the capability to present one file at a time.

- Delivery URL on file level
- Within the METS viewer when a specific file is chosen

IE Viewer - Unites all files as one entity, and creates a viewer.

- Delivery URL on IE level
- View Object



Delivery overview - Current OTB & External Viewers

Out of the Box Viewers:

- General IE Viewer
- General Representation Viewer (since 5.1) 
- Article Viewer
- Photo Album Viewer
- Flex Paper Viewer
- JPEG Viewer
- JPEG2000 Viewer
- XSL Viewer

Delivery overview - Current OTB & External Viewers

External Viewers (currently in GitHub):

- Book Reader Viewer
- Alto Book Reader
- Video Player Viewer
- Web Archive Viewer
- IIPIImage Viewer



- IIIF manifest Viewer
- Universal viewer

Delivery overview - VPPs & External Viewers

Viewer Pre-Processor	External Viewer
Rosetta Plugin jar	Web application deployed on an external server (i.e. war file)
Enables to execute functionality on the Rosetta server i.e. I/O processing	Communication with Rosetta via Web Services or HTTP to Stream Gate
Asynchronous. Built in progress-bar abilities.	All processing will delay viewing, without a friendly indication.

Agenda

1**Delivery overview****2****Rosetta's Viewer Pre Processor (VPP)****3**

Rosetta's Delivery APIs

4

Delivery configuration + surprise!!

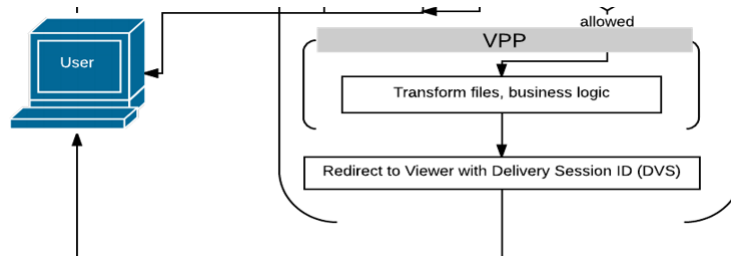
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Hands-on

Rosetta's Viewer Pre Processor (VPP)



Rosetta's Viewer Pre Processor (VPP)

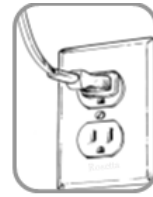


Rosetta's Viewer Pre Processor (VPP)

- The VPP prepares the data for the use of the Viewer.
- Examples of when a viewer should use a VPP?
 - Copying the files from the Permanent Repository to a working area
 - Conversion of files to a specific format
 - Updating the viewer parameters
- Using a VPP is not mandatory!

Rosetta's Viewer Pre Processor (VPP)

- VPPs are standard Rosetta plugins
- **Java Plugin:** A Java code plug-in wrapped as a JAR file
- **Plugin type:** VPPPlugin



Rosetta's Viewer Pre Processor (VPP)

ViewerPreProcessor plugin interface:

Main methods:

- void init(DnxDocument dnx, Map<String, String> viewContext, HttpServletRequest request, String dvs, String ieParentId, String repDirName)
- void execute()
- boolean runASync()

Rosetta's Viewer Pre Processor (VPP)

- runASync should return true if long VPP process time is expected (usually IE viewers with lots of data to process)
- The progress bar can be implemented during the execute method only.
 - Simple logic should be placed in the init method
 - Complex logic in the execute method.

Rosetta's Viewer Pre Processor (VPP)

AbstractViewerPreProcessor

- All VPPs should extend the AbstractViewerPreProcessor
- Getters for all parameters in init (dnx , dvs, viewContext, owner, ieParentId, repDirName)
- getPid()
- getAccess() – use the Access API for the following methods:
 - getIE - Returns the IE (IE and REPs level)
 - getExtendedIeByDvs - Returns the IE (according to flags)
 - getFileStream – returns the inputStream of the file
 - exportFileStream – used to copy the files to a NFS cache
 - Progress bar APIs
 - More...

Rosetta's Viewer Pre Processor (VPP)

Dive into code



Agenda

1

Delivery overview

2

Rosetta's Viewer Pre Processor (VPP)

3

Rosetta's Delivery APIs

4

Delivery configuration + surprise!!

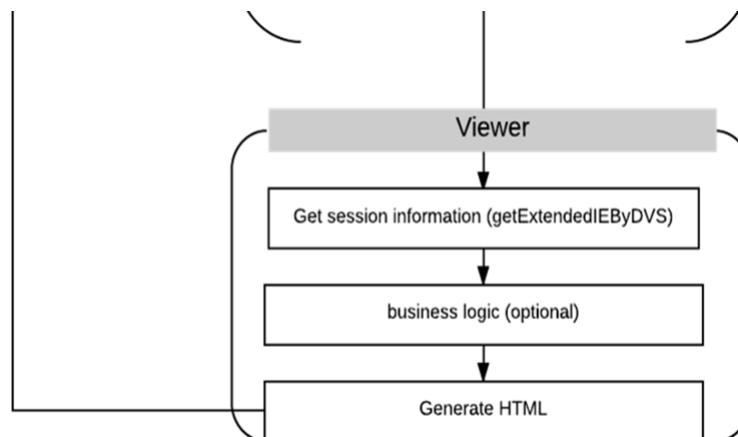
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Hands-on

Rosetta's Delivery APIs



Rosetta's Delivery APIs



Rosetta's Delivery APIs

- DeliveryAccessWS - Web Service
- WSDL can be found under [here](#).
- Used by the Viewer itself
- Can be used only in a delivery context (all APIs need the dvs)

Main methods:

- **getFilePathByDvs**
- **getDnxDocument**
- **getExtendedIleByDvs**

Agenda

1

Delivery overview

2

Rosetta's Viewer Pre Processor (VPP)

3

Rosetta's Delivery APIs

4

Delivery configuration + surprise!!

5

Hands-on

Rosetta's Delivery configuration



Rosetta's Delivery configuration

- Configuration in the Administration – Consortium level


Live Demo:

- **Viewer Management**
- **Representation Profile Configuration**
- **IE Delivery Rules**
- **File Delivery Rules**



Surprise!!

In 5.3 we added support for the:



Live Demo of the Universal Viewer

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Q & A

Any Questions?



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1

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2

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3

Rosetta's Delivery APIs

4

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5

Hands-on

Hands-on Application/Exercises



Hands-on External Viewer Exercise

- We will Implement and configure the JWPlayer.
 - See [blog](#)
 - Download from [github](#)
1. Create your own JWPlayer Viewer – Give it a unique name.
 2. Deploy it on the Trial Server
 3. Add a viewer configuration
 4. Add a Representation profile that returns only the Derivative copy.
 5. Add a IE Delivery rule that takes your specific IE and delivers it with your viewer
 6. Run test – ingest a mp3 file and deliver it using your viewer, login using your own user.

Next Steps and Support Resources



Next Steps and Support Resources

- Documentation links relative to the topic:
 - [Adding an External Viewer](#)
 - [Delivery Web Services blog, javadoc](#)
 - [Integrating JW Player as a Rosetta Viewer](#)
- Additional support resources within the ExLibris Ecosystem:
 - [Idea Exchange](#)
 - [Developer Network](#)
 - <https://developers.exlibrisgroup.com/rosetta/integrations/viewers>
- [Technical Seminar Presentations](#)
(located in the Cross-Product section of the CKC)

Q & A

Any Questions?





Session Survey Evaluation

Please use the following link
<https://www.surveymonkey.com/r/techsem2017>
to provide feedback on your sessions.

