# Process for Adding files to Adobe Content Server from a remote library.

This document describes the process and programs used to obtain eContent files from publishers and load them into an Adobe Content Server (ACS Server). The ACS Server can be located either on an internal network or an external network.

## Process Description

### REceiving Files From Publisher

After an order is received by the publisher, they will fill the order by first sending marc files for the eContent titles. The marc records will then be loaded into the ILS. EContent records will not need items attached to them since the items will be attached to the record within VuFind. After records are imported into the ILS, the Automatic Import Settings within VuFind will need to be adjusted to ensure the records are imported by VuFind.

PDF and EPUB files to be loaded into VuFind-Plus should be transferred to the library via FTP. The FTP server must be accessible by the VuFind server. The structure of the FTP site should be as follows:

* Publisher1
  + Received
    - Cover
    - Data
  + Processed
    - Cover
    - Data
* Publisher2
  + Received
    - Cover
    - Data
  + Processed
    - Cover
    - Data

Files should be named based on the ISBN, UPC, ISSN, or OCLC Number of the title.

Covers in JPG or PNG format can also be loaded to the FTP server. Covers should have the same name as the EUB or PDF.

If the file is part of a multi-volume set, each volume should have the volume number added with an \_XX where XX is the volume number.

Ie. 9780123456789\_01.epub, 9780123456789\_02.epub, and 9780123456789\_03.epub.

### Preprocessing of files

The VuFind cron process will automatically scan the FTP server for new files. When a new file is detected, the following actions are taken:

1. VuFind will look for related records based on the name of the file.
2. If no related record is found, the failure to find a related record will be logged and the file will be skipped until the next time the cron process runs.
3. If a record is found, the following processes will run.
   1. VuFind will check to see if an item has already been created for the record.
   2. If an item already exists for the file, that will be logged, and the file will be moved to done.
   3. If an item does not exist, the following processes will run:
      1. A new item will be created for the file based on the type of file.
      2. The file will be moved to the VuFind eContent library so patrons can read it online immediately.
      3. If the record has an access type of acs, the following processes will run:
         1. The file will be transferred to the acs protection server via FTP so it can be transferred. Files will be renamed to use the itemId that the file is attached to and will be placed in a directory based on the distributor name.
         2. A web service on the ACS protection server will be called to indicate that a new file is ready to be processed.

### Protection WEB SERVICE 1

The Protection web service will have two methods. The first will allow files to be added to the queue to be processed for protection and the second will allow the results of processing to be fetched. Both services are REST based services that return JSON encoded information.

#### **RequestFileProtection**

This method adds a file to the queue protection processing. The following parameters should be supplied:

* distributorId – The id of the distributor within the Adobe Content Server
* itemId – The item id that should be processed
* copies – The number of copies that should be available for simultaneous usage in the content server.
* previousAcsId (optional) – The previous id of the item within the ACS server if it has already been added to the ACS server.

The webservice will respond with the following JSON encoded data:

* success (true/false) – whether or not the file could be added to the queue
* error – a descriptive error message
* packagingId – the id of the process to be used to request additional information about the status of the process.

#### GetFileProtectionStatus

This method retrieves the status of one or more processes in the ACS server. The following parameters should be supplied:

* distributorId – The distributor to retrieve title for.
* updatedSince (optional) – a time measured in number of seconds since the Unix Epoch.
* packagingId (optional) – a specific id to retrieve information for. Up to 50 ids can be provided for retrieval at one time.

If the updatedSince parameter is provided, the service will return status information for all files that were updated after the updatedSince time.

If the packagingId is provided information about the specific ids will be returned.

If both packagingId and updatedSince parameters are provided the packagingIds will take precedence.

If neither optional parameter is provided, the service will return all records that have changed in the past 6 hours.

The webservice will respond with the following json encoded information

* packagingId
* acsError – The error received from the ACS server if any
* acsId – The id of the packaged file that was received from the ACS server
* datePackagingCompleted - the date/time that the packaging process completed
* status – the status of the file. Valid values include:
  + Pending
  + Sent to ACS Server
  + ACS Id generated
  + ACS Error

### ACS PRotection Processing

The ACS protection server will run a background process that will process records in the queue and send them to the ACS server for packaging. The process will run the following steps:

1. Get the next packagingId to process – minimum creation date where status is pending.
   1. If a new record is not found, pause for 1 minute
   2. If a new record is found
      1. Send the file to the Adobe Packaging service
      2. Read the results of the packaging service
      3. Update the database with the results of packaging.
      4. Remove the unprotected file from the file system

### Update of PROCESSED files

The VuFind cron process will automatically call the packaging web service at regular intervals to get the status of records it has sent for packaging. Based on the response from the call to getFileProtection status, it will update the econtent\_file\_processing\_log table.

### Changing Number of Copies

When the number of copies of a file is changed, the ACS Id needs to be regenerated. To do this, VuFind will generate a new packaging request to the ACS server. This request will be the same as the original request, except it will include the existing acsId in the request so the ACS server can update the existing request with a new number of copies.

## Reports

The following reports will be available within the system. All reports will be available from the VuFind administration area to provide a consistent interface.

### eContent Import SUMMARY Report

The report will include the following information in graph and table format:

* The number of files imported by publisher in a given time period.
* Number of files will include total files, as well as a breakdown by status.
* Time periods can be defined as daily, weekly, monthly, or by year.
* User can select the date range to filter
* User can filter which publishers are included in the report.

### eContent Import DETAILS Report

This report will show the results of packaging with detailed information for any errors that occurred. By default the report will show files imported in the last hour for all publishers.

The report will have the following filters:

* Time period to include
* Statuses to include
* Ability to select which publishers to include
* Ability to filter to show specific packagingIds
* Inclusion of new files, existing files, or both.

The report will allow pagination and sorting of the results.

### Packaging SUMMARY Report

This report will only be available if the system is setup to do packaging i.e. an ACS server is installed for the library. The report will include the following information in graph and table format:

* The number of files packaged by library in a given time period.
* Number of files will include total files, successful files, files with errors.
* Time periods can be defined as daily, weekly, monthly, or by year.
* User can select the date range to filter
* User can select which library or libraries are included in the report.

### Packaging DETAILS Report

This report will only be available if the system is setup to do packaging i.e. an ACS server is installed for the library. This report will show the results of packaging with detailed information for any errors that occurred. By default the report will show errors generated in the last hour for all publishers.

The report will have the following filters:

* Time period to include
* Whether or not to include errors and successful records.
* Ability to select which libraries to include
* Ability to filter to show specific packagingIds

The report will allow pagination and sorting of the results.

## Architecture

Protection FTP Server

Library FTP Server

Protection Database (MySQL)

()

Data

Packaging Server

Java Process calls Adobe Packaging application

VuFind Server at Library

(Java Cron Process)

Protection Services Server

PHP Web services

Public IP protected with SSL and IP restrictions

VuFind eContent Database (MySQL)

## Database structure

### VUfind Database

The VuFind server will add a new table for reporting purposes in the eContent database. The table will be called econtent\_file\_processing\_log and will have following table structure:

* econtentFileId – A unique id
* filename – the name of the file to be processed
* publisher – the name of the publisher that the file came from
* distributorId – the distributor to package the file with.
* copies – the number of copies that should be available for checkout in the ACS server
* dateFound – the date/time the file was first detected
* econtentTemId – the eContent item that the file is attached to
* dateSentToPackaging – the date/time that the record was transferred to the ACS server for processing
* packagingId – The id of the process to generate the ACS Id from the ACS protection server.
* acsError – The error received from the ACS server if any
* acsId – The id of the packaged file that was received from the ACS server
* datePackagingCompleted - the date/time that the packaging process completed
* status – the status of the file. Valid values include:
  1. Detected
  2. Record Found
  3. Item Generated
  4. Sent to ACS Server
  5. ACS Id generated
  6. ACS Error
  7. Item Updated

### Packaging Database

The packaging server will have a new database on it that stores information about the files to be packaged by the ACS server. All information about files to be packaged will be stored in the acs\_packaging\_log table which will have the following table structure:

* packagingId – A unique id of the item to be packaged
* ditributorId – The distributor to use when packaging the file
* copies – The number of copies that should be created
* filename – the name of the file to be processed
* created – the date/time that the record was added to the packaging server via the web service
* lastUpdate – the date/time that the record was last updated
* packagingStartTime – the date/time that the record was sent to the packaging process
* packagingEndTime – the date/time that the packaging process completed
* acsError – The error received from the ACS server if any
* acsId – The id of the packaged file that was received from the ACS server
* status – the status of the file. Valid values include:
  + Pending
  + Sent to ACS Server
  + ACS Id generated
  + ACS Error