



LOConnector Guide

Version 15.8



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Welcome to ImageQuest!

The ImageQuest product line is a complete enterprise content management system consisting of document/file management, forms processing and workflow components. ImageQuest is designed to facilitate access to and the distribution of document-oriented information within your organization. By putting documents at your fingertips and leveraging the related data, ImageQuest will improve efficiency while helping you deliver better service.

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LOConnector for ImageQuest

The LOConnector is a Windows service that is installed and configured on the ImageQuest server. On an interval, the service looks in a specific directory for XML files from LiquidOffice. For each XML file found, the service parses it and does the following:

- Looks for a field called "Document_Type", whose value is used to retrieve an IQ document type of the same name. (This must be a Hidden Field created on the LiquidOffice form and the Initial Value = the ImageQuest Document Type Name.) This is what establishes a conceptual "link" between LO and IQ.
- Each LiquidOffice form for import by the LOConnector must have a XML Data Export configured to "Include form" "and attachments".
- Once the service knows which ImageQuest document type it's dealing with, it retrieves the associated attributes. It then searches the LiquidOffice XML for fields with the same name or that have an Alias mapped in the Configuration.xml, and uses whatever values it finds to populate an actual ImageQuest document object. If there are any LiquidOffice XML fields whose names do not exactly match or are not explicitly mapped to an ImageQuest attribute name, they're ignored and will not make it into ImageQuest and a warning is written to the LOConnector service log file.
- The service will also import the LiquidOffice PDF form export associated with the LiquidOffice XML file.
- Because the ImageQuest OCR full-text service has problems with PDF files straight out of LiquidOffice, the LOConnector runs them through a program called Ghostscript. Ghostscript outputs a "fixed" PDF that works better with ImageQuest OCR.
- Depending on how it's configured, the service will handle form attachments one of two ways:
 - Take any "attached" PDF, JPG or TIF files from LiquidOffice and combine them with the form PDF before putting them into ImageQuest. Depending on where the attachments are coming from, they may need to be run through Ghostscript as well.
 - Take any file type attachments and add each of them as separate documents in ImageQuest with the same attribute data from the associated LO form.
- The ImageQuest document object and associated PDF are committed to ImageQuest, and any successfully processed XML and PDF files are deleted from the Poll Directory. Because of the latter, it is critically important that the service have full access to the LiquidOffice output directory.
- If an alias is defined for an attribute/field but no match is found, the LO connector will fall back to looking for an exact match of the IQ attribute name.
- The LOConnector supports exporting Document Group data to ImageQuest. A field called "DocumentGroup" must be added to the LO form and the field must be populated with a value that matches an existing Document Group name in ImageQuest in order for field to be populated.

Installation

The LOConnector files are located in Addons\LOConnector on the ImageQuest installation media.

The LOConnector directory contains the connector service itself; copy this to a location of your choice on the server (drive root is sufficient, but we recommend the ImageQuest Program Files directory). There is no "regular" installer for it, so to get it installed as a Windows Service, you'll have to do the following:

1. Open a command prompt (Start->Run->type "cmd" and hit enter)
2. Type "cd C:\Windows\Microsoft.NET\Framework\v4.0.30319" (without quotes) and hit enter
3. Type "InstallUtil.exe (Path where you copied the LOConnector directory)\Informa.ImageQuest.LOConnector.exe" and hit Enter. See example below which assumes the LOConnector directory was copied to C:\Program Files (x86)\Informa Software\ImageQuest on the ImageQuest server.

```
(C:\Windows\Microsoft.NET\Framework\v4.0.30319> InstallUtil.exe "C:\Program Files (x86)\Informa Software\ImageQuest\LOConnector\Informa.ImageQuest.LOConnector.exe")
```

4. You'll see some diagnostic output and at the end it should say "The transacted install has completed". The new Windows service is called IQ LiquidOffice Connector. Note that the service is not started yet.
5. Download and install Ghostscript for Windows (64 bit) on the ImageQuest server. All the default options are fine. The Ghostscript 10.0.0 for Windows (64 bit) download is available here: <https://www.ghostscript.com/releases/gsdnld.html>. Please download the Ghostscript AGPL Release version.

Configuration

There is a Configuration.xml file for configuring individual ImageQuest cabinets, how to handle attachments, the LiquidOffice export (LOConnector polling) folders and any associated LiquidOffice field to ImageQuest attribute mappings. Edit this file in Notepad to configure the service settings. The default Configuration.xml has an example for a single cabinet configuration. The screenshot on the following page shows the default example.

```

<?xml version="1.0" encoding="utf-8"?>
<Configuration xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <!-- How often, IN SECONDS, the service will poll for new files. -->
  <PollIntervalSec>60</PollIntervalSec>
  <!-- Path and name of the Ghostscript executable. -->
  <GhostscriptExe>C:\Program Files\gs\gs9.00\bin\gswin32c.exe</GhostscriptExe>
  <Cabinets>
    <!-- Name of each cabinet, and where it will look for output from LiquidOffice. -->
    <Cabinet Name="RangerJackson" ImportAttachmentsAsDocuments="false" PollDirectory="C:\Temp\LO Samples\" >
      <Aliases>
        <Alias ImageQuestAttribute="RefNum" LiquidOfficeField="Reference_Number" />
      </Aliases>
    </Cabinet>
  </Cabinets>
</Configuration>

```

Configuration Notes

- Change the <GhostscriptExe> entry to match the proper version and path on the ImageQuest server.
- All Cabinet and Alias configurations should be made and maintained between the <Cabinets> and </Cabinets> elements.
- ImportAttachmentsAsDocuments can be configured for each individual cabinet entry. If “false”, the LOConnector will combine the attachments with the LO form to make one document in ImageQuest. This functionality will only work if the attachments are PDF, TIF or JPG. If “true”, the LOConnector will add the LO form as a document and add each attachment as a separate document with the attribute data from the LO form. This functionality will work with virtually any file type.
- Each individual cabinet entry MUST have its own unique LiquidOffice PollDirectory.
- An Alias entry must be made for every LiquidOffice field to be exported if the field name doesn't match the associated ImageQuest attribute name EXACTLY. If an LiquidOffice field name and associated ImageQuest attribute name are exactly the same, you do not have to add an Alias entry for it and the LOConnector will export it automatically.
- Shared attributes only need to be configured once per cabinet if an Alias is required.
- Different LiquidOffice fields can be mapped to the same ImageQuest Attribute in the same Cabinet.
- If you are upgrading the LOConnector, backup the Informa.ImageQuest.LOConnector.exe.config before upgrading so you can use any viable information when configuring the new connector.
- The LOConnector service must be restarted every time a change is made to the Configuration.xml.
- If the LOConnector service is configured to poll directories that are not local to the ImageQuest server, the service logon must be configured to use an account with permissions to modify (delete) the contents of the poll directories.

Once you've configured the LOConnector, you can start the IQ LiquidOffice Connector service and it should begin polling for files to import into ImageQuest.

Configuration for Multiple ImageQuest Cabinet Exports

Below is an example Configuration for a multi-cabinet scenario for the following cabinets: ImageQuest, SecondIQCabinet and ThirdIQCabinet.

```
<?xml version="1.0" encoding="utf-8"?>
<Configuration xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <!-- How often, IN SECONDS, the service will poll for new files. -->
  <PollIntervalSec>60</PollIntervalSec>
  <!-- Path and name of the Ghostscript executable. -->
  <GhostscriptExe>C:\Program Files (x86)\gs\gs8.64\bin\gswin32c.exe</GhostscriptExe>
  <Cabinets>
    <!-- Name of each cabinet, and where it will look for output from LiquidOffice. -->
    <Cabinet Name="ImageQuest" ImportAttachmentsAsDocuments="true" PollDirectory="C:\Documents
and Settings\All Users\Application Data\Cardiff\LiquidOfficeServer\SharedResources\process\data\exports" >
      <Aliases>
        <Alias ImageQuestAttribute="SSN" LiquidOfficeField="Social_Security" />
        <Alias ImageQuestAttribute="Cabinet Name" LiquidOfficeField="Cabinet_Name" />
        <Alias ImageQuestAttribute="First Name" LiquidOfficeField="First_Name" />
        <Alias ImageQuestAttribute="Last Name" LiquidOfficeField="Student_First_Name" />
      </Aliases>
    </Cabinet>
    <Cabinet Name="SecondIQCabinet" ImportAttachmentsAsDocuments="false"
PollDirectory="C:\Documents and Settings\All Users\Application
Data\Cardiff\LiquidOfficeServer\SharedResources\process\data\exports\SecondCabinet" >
      <Aliases>
        <Alias ImageQuestAttribute="Invoice Date" LiquidOfficeField="Invoice_Date" />
        <Alias ImageQuestAttribute="Invoice Amount" LiquidOfficeField="Amount" />
        <Alias ImageQuestAttribute="Invoice Number" LiquidOfficeField="Inv_Number" />
        <Alias ImageQuestAttribute="Vendor" LiquidOfficeField="Vendor_Name" />
      </Aliases>
    </Cabinet>
    <Cabinet Name="ThirdIQCabinet" ImportAttachmentsAsDocuments="false" PollDirectory="C:\Documents
and Settings\All Users\Application Data\Cardiff\LiquidOfficeServer\SharedResources\process\data\exports\3rdCabinet" >
      <Aliases>
        <Alias ImageQuestAttribute="Employee Name" LiquidOfficeField="Name" />
        <Alias ImageQuestAttribute="Employee ID" LiquidOfficeField="Employee_Id" />
      </Aliases>
    </Cabinet>
  </Cabinets>
</Configuration>
```


LOConnector Import Examples

The default location for a LiquidOffice XML_Export is C:\ProgramData\LiquidOffice\Server Resources\process\data\exports on the LiquidOffice server.

The example below shows a LiquidOffice XML export for a LiquidOffice form without any attachments. The “_1.pdf” file is a one page LiquidOffice form.

This PC > Local Disk (C:) > ProgramData > LiquidOffice > Server Resources > process > data > exports			
Name	Date modified	Type	Size
Contact Information Formx7f398559z185a1a79b19zx7fbd	1/11/2023 2:12 PM	XML Document	2 KB
Contact Information Formx7f398559z185a1a79b19zx7fbd_1	1/11/2023 2:12 PM	Adobe Acrobat Document	27 KB

The LOConnector will import the one page LiquidOffice PDF form into ImageQuest as a one page document. See example below.

CreateDateTime	PageCount	DocumentType	FirstName	LastName	StreetAddress	City	State	ZipCode
1/11/2023 2:14:20 PM	1	Contact Information Form	John	Smith	123 Oak Drive	Orlando	FL	32809




The example below shows a LiquidOffice XML export for a LiquidOffice form that has a PDF attachment. The “_1.pdf” file is a one page LiquidOffice form and the “_2.pdf” file is a four page PDF attachment.

This PC > Local Disk (C:) > ProgramData > LiquidOffice > Server Resources > process > data > exports			
Name	Date modified	Type	Size
Contact Information Formx7f398559z185a1a79b19zx7fc3	1/11/2023 1:52 PM	XML Document	2 KB
Contact Information Formx7f398559z185a1a79b19zx7fc3_1	1/11/2023 1:52 PM	Adobe Acrobat Document	27 KB
Contact Information Formx7f398559z185a1a79b19zx7fc3_2	1/11/2023 1:52 PM	Adobe Acrobat Document	646 KB

If “ImportAttachmentsAsDocuments” is “false”, the LOConnector will combine the LiquidOffice PDF form and the PDF attachment into one document and import the document into ImageQuest. See example below. Note the PageCount is “5” which is the total page count for the one page LiquidOffice form and the four page PDF attachment.

CreateDateTime	PageCount	DocumentType	FirstName	LastName	StreetAddress	City	State	ZipCode
1/11/2023 11:54:36 AM	5	Contact Information Form	John	Smith	123 Oak Drive	Orlando	FL	32809

If “ImportAttachmentsAsDocuments” is “true”, the LOConnector will import the LiquidOffice PDF form and PDF attachment into ImageQuest as two separate documents. The field data from the LiquidOffice form will also be applied to the attachment document(s). See example below. Note that the PageCount is “1” for the one page LiquidOffice form and “4” for the four page PDF attachment.

	CreateDateTime	PageCount	DocumentType	FirstName	LastName	StreetAddress	City	State	ZipCode
	1/11/2023 1:53:18 PM	1	Contact Information Form	John	Smith	123 Oak Drive	Orlando	FL	32809
	1/11/2023 1:53:18 PM	4	Contact Information Form	John	Smith	123 Oak Drive	Orlando	FL	32809

Note: The LOConnector will only calculate page count for PDF files by default. Page count for TIF files will be calculated if the ImageQuest Ocr Fulltext service is enabled and running and the TIF can be converted to a PDF. Page count will not be calculated for any other file types.

LOConnector Logfile

The default location for the LOConnector logfile is C:\Windows\Temp\Informa Software\LogFiles\LOConnector on the IQ server.

Upgrading the LOConnector

The LOConnector must be upgraded when ImageQuest is upgraded.

- 1) Stop the LOConnector Service
- 2) Back up the current Configuration.xml in the LOConnector application folder
- 3) Copy/paste the new LOConnector files to the LOConnector application folder and overwrite all when prompted
- 4) Restore the original Configuration.xml and overwrite the new file when prompted
- 5) If upgrading to ImageQuest version 15.8 or higher, add the “ImportAttachmentsAsDocuments” setting and appropriate value to each Cabinet entry in the Configuration.xml file if you plan to use the feature. In the example below, the setting has been added and the value is set to “true”.

```
<?xml version="1.0" encoding="utf-8"?>
<Configuration xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <!-- How often, IN SECONDS, the service will poll for new files. -->
  <PollIntervalSec>60</PollIntervalSec>
  <!-- Path and name of the Ghostscript executable. -->
  <GhostscriptExe>C:\Program Files\gs\gs10.00.0\bin\gswin64c.exe</GhostscriptExe>
  <Cabinets>
    <!-- Name of each cabinet, and where it will look for output from LiquidOffice. -->
    <Cabinet Name="IQDatabase" ImportAttachmentsAsDocuments="true" PollDirectory="C:\LOExports\" >
      <Aliases>
        <Alias ImageQuestAttribute="RefNum" LiquidOfficeField="Reference_Number" />
      </Aliases>
    </Cabinet>
  </Cabinets>
</Configuration>
```

- 6) Start the LOConnector Service