



## DocuShare eForms Guide



Publication date: February 2011

This document supports DocuShare Release 6.6.1

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# Table of Contents

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## Chapter 1 DocuShare eForms add-on

Overview .....	1-1
LiquidOffice overview .....	1-2
LiquidOffice Presentation Server .....	1-2
LiquidOffice Process Server .....	1-2
LiquidOffice Form Designer .....	1-2
Forms .....	1-3
Document type .....	1-3
Property mapping .....	1-3
Attachments .....	1-4
Date format .....	1-4
Decimal character format .....	1-6
Forms glossary .....	1-7

## Chapter 2 Installation and configuration

System requirements .....	2-1
DocuShare eForms installation .....	2-1
Install the software .....	2-1
Set up form owners, directories, and collections .....	2-2
Configure the Content Intake Manager .....	2-3
Define the connect agents .....	2-4
Define an authentication connect agent (optional) .....	2-5
Configure published forms to use connect agents .....	2-5
Form Designer installation .....	2-7
Stopping DocuShare eForms .....	2-9
Starting DocuShare eForms .....	2-9
Services window .....	2-9
Reconfigure the form server .....	2-10
Languages .....	2-10
Uninstall the LiquidOffice Form Server from DocuShare eForms .....	2-11
DocuShare, LiquidOffice, and IIS integration .....	2-13

## Table of Contents

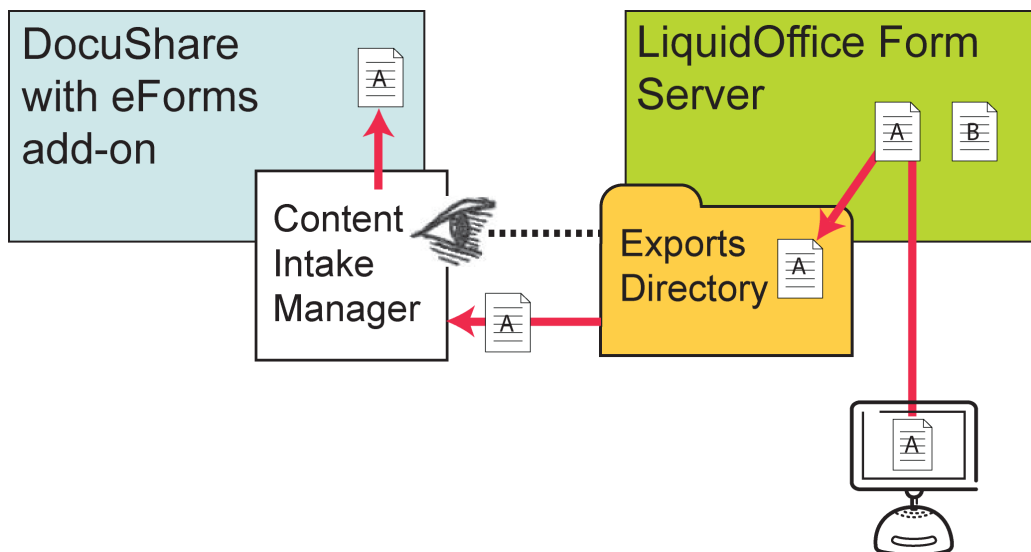
# DocuShare eForms add-on

1

## Overview

The DocuShare eForms add-on allows users to complete online electronic forms (eForms), add attachments, and submit the forms to DocuShare for sharing, management, and storage.

1. A user connects to a web site and selects a form, fills in the fields, and then submits the form.
2. The LiquidOffice Form Server processes the submitted form as both XML data and a PDF representation of the form, then moves it to an assigned sub-directory within the exports directory.
3. The Content Intake Manager socket instance assigned to watch a specific sub-directory within the exports directory moves the PDF and XML renditions of the form into DocuShare.
4. DocuShare assigns the form an object class (document or custom document object class), so the form is now a DocuShare object, complete with a unique handle and editable properties.
5. DocuShare users can log into the site to read and process the form.



## LiquidOffice overview

The LiquidOffice Form Server software that is part of the DocuShare eForms add-on, is comprised of two main components: the LiquidOffice Presentation Server and the LiquidOffice Process Server.

### LiquidOffice Presentation Server

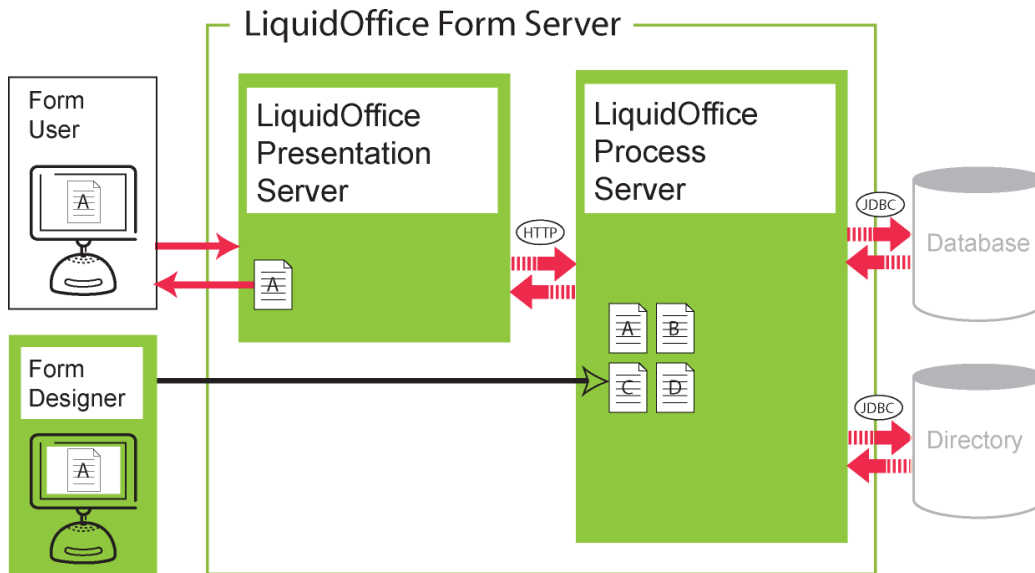
All client communications takes place between a client, such as a web browser or the LiquidOffice Form Designer, and the Presentation Server. The Presentation Server communicates with the LiquidOffice Process Server before responding to a client request, and renders the web pages accordingly.

### LiquidOffice Process Server

The Process Server hosts the forms published by the Form Designer. The Process Server also interacts with forms for database lookups, validations, and process routing.

### LiquidOffice Form Designer

Used by form designers to create and publish forms to the Process Server. The Form Designer software can be installed on a workstation running on a Windows platform.



## Forms

Each incoming form is stored in DocuShare as a standard document object or as a custom document object class. Each form is represented by a PDF primary rendition and an accompanying XML rendition.

## Document type

The DocuShare Content Intake Configuration UI page contains a field titled **Document Type**. This field allows you to customize how you want your forms represented in DocuShare. This field can help you organize the forms on a site and create specialized documents that contain only those properties necessary and related to a specific form.

By default, DocuShare assigns the **standard document object class** to all incoming forms within a socket instance, thereby giving all incoming PDF files the handle Document-## and supplying all PDF files with the standard DocuShare document object class properties.

If you want to organize and differentiate your form documents, and have documents contain only those properties specific to that form, you can configure DocuShare to assign a custom document object class to the forms, such as LoanApplication-##. To do so, you must first create a custom document object, then enter the **Name** of that custom object class in the **Document Type** field of the Content Intake Configuration UI page.

**Note:** *The Name of an object class is the system name, such as loan\_application. The Label of an object class is the name as it appears on the UI property page, such as Loan Application.*

Refer to the *DocuShare Administrator Guide* for instructions on creating custom object classes. When creating a custom object class for eForms, always select to clone from the **Document** class. When designing a form, check to make sure the object class you intend to use for the form does not already exist on the DocuShare site. For example; if you intend to create a new object class called *Invoice*, there may already be an object class named *Invoice* on the DocuShare site. That existing object class no doubt has property fields different than those you will use with your Invoice form, and the object is currently in use for purposes other than eForms.

## Property mapping

When designing a form, a form designer can create fields that map to standard and custom properties of the document object class and custom document object classes. For example, an Invoice custom document object class might have an “invoice account” custom property. With the “invoice account” properly mapped to the correct form field, the value entered on the form is automatically assigned to the corresponding property in the DocuShare document.

The form designer should work closely with the DocuShare administrator to make sure the form meets the requirements for use with DocuShare.

The correct syntax for creating a form field that maps correctly to a DocuShare property is **DS\_propertyname**. For example, DS\_loantitle or DS\_application\_date. The property name must follow DocuShare property name guidelines as described in the *DocuShare*

*Administrator Guide*, and the form field name and the DocuShare property name must use the same case.

**Note:** The `__` following DS is actually **two** underscores. A Field Name in a Form Designer Properties page field would be **DS + two underscores** no space+ **propertyname**.

It is important to remember that if the property specified in DS\_\_propertyname does not exist on the DocuShare eForms site, the Content Intake Manager will not process the form.

## Attachments

DocuShare eForms supports the use of attachments on submitted forms. To design a form that will handle attachments, the form designer adds a form control button, opens the properties of the button, and assigns it a manage attachment action.

When filling out a form, the user clicks the attachment button; eForms routes the user to the LiquidOffice Attachment Manager where the user can select and add attachments to the form. When done, the user clicks **Finish** and is returned to the original form for completion and submission.

Attachments are uploaded to DocuShare as peer documents, with the same path and mapped properties as the accompanying form. If an attachment does not have a name, the system gives the attachment the same name as the form, but with an `_n` (underscore integer) appended to the name. The PDF rendition of the form is appended with `_1`, so the first attachment starts with `_2`, the next attachment to the form is `_3`, and so on.

## Date format

When designing a form, the form designer can include date fields. Each field has a properties page where the form designer can select a date format.

A date format defines how a user must enter the date in the field. For example, if the date format is defined as D/M/YYYY, the Preview section shows the format that the user must use to enter a date (DD/MM/YYYY), such as 15/07/2010. Entering a date in the incorrect format, such as 15/07/10, triggers a message that instructs the user to enter a date in the correct format of 15/07/2010.

However, a DocuShare Content Intake Manager socket instance cannot understand the values entered in the date field unless you tell it how to interpret those values so it can create the correct date property values for the DocuShare object.

To tell the Content Intake Manager how to interpret the date values, you must enter an **equivalent** format in the **Date Format** field on the DocuShare Content Intake Configuration page. This tells the Content Intake Manager socket instance how to read the date field information on the submitted form.

To create an equivalent format, you must know how the date format of the form date field was set up in Form Designer. The best method of doing this is to look at the **Preview** section of the Form Designer Properties page, which will give you a clear idea of the date format.



Then you look for equivalent **Pattern Letters** in [Table 1–1](#). For example, if the date format set in the form is **MM/DD/YYYY**, you would look at the **Pattern Letter** column of the table.

1. “Month in year” is designated in the table as **M**, and since there are double digit months, you enter **MM**, followed by a *.*
2. “Day of the month” is designated in the table as **d** (lower-case), and since there are double digit days of the month, you enter **dd**, followed by a *.*
3. “Year” is designated in the table as **y** (lower-case), and since you want the entire year recorded, you enter **yyyy**.

So the equivalent date format for the Form Designer date format of MM/DD/YYYY would be **MM/dd/yyyy**; which you enter into the **Date Format** field on the Content Intake Manager Configuration page. **Note that Pattern Letters are case-sensitive.**

Table 1–1: Pattern Letter Equivalent

Pattern Letter	Date Component	Presentation	Example
y	Year	Year	1996; 96
M	Month in year	Month	July; Jul; 07
d	Day in month	Number	10

Note that in Form Designer, selecting date formats that contain periods or exclamation marks are for **form use only**. They have no impact on how you specify an equivalent format on the Content Intake Manager page. For example, selecting a Format of **M!/D!/YYYY** displays the format of **MM DD YYYY** on the form. An equivalent date so the Content Intake Manager can understand the date format, would again be MM/dd/yyyy.

It is important to remember when designing a form that the Content Intake Manager supports only one Date Format per socket instance. So, when the form designer adds two date fields to a form, such as “Offer Date” and “Expiration Date”, the designer must give both the same date format; MM/DD/YYYY, YYYY.M.D, etc.

**Pattern Letters** are usually repeated in the format. The number of times a letter is repeated in a format determines what is displayed, so yyyy=1996 and yy=96.

**Presentation** describes how the pattern letters are displayed.

- **Text.** If the number of pattern letters is four or more, the full form is used. Otherwise, an abbreviated form is used if one is available. For parsing, both full and abbreviated forms are accepted; independent of the number of pattern letters.
- **Number.** The number of pattern letters displayed is the minimum number of digits, with shorter numbers zero-padded to this amount. For parsing, the number of pattern letters is ignored unless there is a need to separate two adjacent fields.
- **Year.** If the number of latter letters is two, then the year is truncated to two digits; otherwise, the year is displayed as a number.

## Decimal character format

When designing a form, the form designer can include numeric fields. Each field has a properties page where the form designer can select a separator/decimal style. The default setting is to use a comma as the separator character and a period as the decimal character. For example: 1,234.56.

A DocuShare Content Intake Manager socket instance cannot understand the form decimal character unless you specify an **equivalent** character in the **Decimal Character** field on the Content Intake Configuration page. This tells the Content Intake Manager socket instance how to read the numeric field information on the submitted form.

In the US, the period is used as the decimal character (123.45). In other locales, the comma is used (123,45).

## Forms glossary

<b>connect agent</b>	The method used to export data from the LiquidOffice Form Server to DocuShare eForms.
<b>form designer</b>	Someone who uses the Form Designer to create and manage LiquidOffice forms.
<b>LiquidOffice Form Designer</b>	Used by form designers to create forms and publish them to a LiquidOffice Server.
<b>LiquidOffice Form Server</b>	The software that hosts LiquidOffice forms. LiquidOffice Form Server is comprised of two major components: the Presentation Server and the Process Server.
<b>LiquidOffice Presentation Server</b>	A component of the LiquidOffice Form Server software; the Presentation Server renders published forms. All client communications take place between the client and the Presentation Server. The Presentation Server communicates with the Process Server.
<b>LiquidOffice Process Server</b>	A component of the LiquidOffice Form Server software; the Process Server hosts the published forms and forms processes. The Process Server is responsible for serving-up forms and for interacting with forms for database lookups, authentication validations, and form submittals. The Process Server communicates with the Presentation Server, never directly with the client.
<b>publish forms</b>	Placing forms created using LiquidOffice Form Designer onto the Process Server, then setting up form properties; assigning form access; assigning data access; setting up form routing; and setting up data exports. The Process Server moves the forms into a designated location so they can be accessed by users.



## System requirements

Refer to [DocuShare.xerox.com](http://DocuShare.xerox.com) for DocuShare eForms system requirements.

In addition, the Java Runtime Environment (JRE) version 1.5 or higher must be installed on the DocuShare eForms server and the PATH environment variable set.

DocuShare eForms supports the use of Microsoft SQL Server 2005, Microsoft SQL Server 2008, and Oracle databases; all other databases are not supported. If you use an Oracle database, grant CONNECT and RESOURCE roles and make sure the CREATE VIEW privilege is present.

## DocuShare eForms installation

The installation and configuration of DocuShare eForms requires both DocuShare and LiquidOffice Form Server administrator skills.

Before you install DocuShare eForms, request and receive a DocuShare eForms license. DocuShare must be licensed for eForms **before** you install the add-on.

## Install the software

1. Copy your **DocuShare eForms license string** into the **License** field on the **Site Management | License** admin page of your DocuShare site.

***Note:** DocuShare must be licensed for eForms **before** you install the add-on.*

2. Stop DocuShare.
3. Download the add-on software to the server.
4. Start the installation, select to install the DocuShare eForms add-ons, then follow the install Wizard instructions just as you would any other DocuShare add-on or update.
5. When the installation has successfully finished, close the Wizard.
6. Start DocuShare.
7. Go to the <DSHome>\backup\liquid-office-server directory and open the **install.properties** file.
8. In the open install.properties file, search for the keyword **port**.

The port number in this file (default = 99) is the port you will use to access the LiquidOffice Form Server.

9. Open a browser window and enter the URL to the Form Server. For example:  
**http://localhost:99/jsp/login.jsp.**
10. In the Login window, log in as **administrator** (there is no initial password).  
***Note:** After you have logged in, you can use the server administrator tool to create a secure password for administrator.*  
A LiquidOffice windows appears.
11. On the toolbar, click the **Administration** icon (the hammer and wrench) to download and install the LiquidOffice Management Console.

## Set up form owners, directories, and collections

Before you configure the Content Intake Manager to create socket instances for the forms, you need to set up the following:

1. For each socket instance, select or create a registered user to be the owner of the forms. Record the handle of this user. Later, you will enter this handle in the **Default User Handle** field. If you select Admin to be the owner, then the Default User Handle will be User-2.

**Example:** User-2

2. For each socket instance, create a sub-directory within the **exports** directory: <DSHome>\LiquidOffice\Resources\process\data\exports. Record the full path to this directory. Later, you will enter this path in the **Watch Directory** field.

**Example:** <DSHome>\LiquidOffice\Resources\process\data\exports\invoice

***Note:** It is required that you create the sub-directory within the exports directory.*

3. For each socket instance, create a collection on the DocuShare site to be the destination for all forms uploaded from the exports sub-directory you created in step 2. Record the handle of this collection. Later, you will enter this handle in the **Target Root Collection Handle** field.

**Example:** Collection-236

4. For each socket instance, create an error directory within the DocuShare home directory. The directory should not be created in the exports directory and the path should not contain spaces. Record the full path to this directory. Later, you will enter this path in the **Error Directory** field.

**Example:** <DSHome>\eformslogs\invoice

***Note:** It is recommended that you create a directory (for example, eformslogs) in which to create each error directory.*

## Configure the Content Intake Manager

To configure the Content Intake Manager, you use the information that you noted in [Set up form owners, directories, and collections on page 2–2](#).

1. On the DocuShare site, log in as admin, click **Admin Home**, and go to **Services and Components | Content Intake | Configuration**.
2. On the **Content Intake Configuration** page, in the **Category** field, select **eForms**.

You use this page to create a Content Intake Manager socket instance for each type of form on your site.

- a. In the **Name** field, enter a unique name for this socket instance. Use a common name, such as Invoice. You will use this name for the connect agent that you create later.
- b. Select **Enabled** to activate this socket instance.
- c. In the **Default User Handle** field, enter the DocuShare handle of the user who will be the owner of all the forms for the socket instance.
- d. In the **Target Root Collection Handle** field, enter the handle of the collection where you want forms uploaded from the exports sub-directory. The XML data accompanying the forms further defines the locations for content within the target collection.

- e. (*Optional*) In the **Collection Path** field, enter either a collection title or the path to a sub-collection under the target root collection; if there is a sub-collection. If you do not enter a collection path, the forms are uploaded to the collection specified in the **Target Root Collection Handle** field.

For a collection path, enter a forward slash (/) to designate a collection path relative to the Target Root Collection Handle. If a collection specified in this field does not exist, the Content Intake Manager will create one and assign the Default User as the owner.

**Note:** *In addition to a collection title, you may use substitution tokens in the path. For example, `${fieldname}`, where `fieldname` is the name specified for the field on the form (the **Field name** value in the Properties dialog for the field). If the field maps to a DocuShare property, the `fieldname` must correspond to an existing DocuShare property of that exact name (case-sensitive). For example: `DS__loantitle` field maps to the DocuShare `loantitle` property.*

*Also, you can prefix and append text to a substitution token.*

- f. In the **Watch Directory** field, enter the full path to the appropriate exports sub-directory. For example:  
<DSHome>\LiquidOffice\Resources\process\data\exports\invoice.
- g. In the **Error Directory** field, enter the full path to the location where copies of undeliverable forms are sent. For example: <DSHome>\eformslogs\invoice.
- h. In the **Polling Interval** field, enter the interval, in milliseconds, for the Content Intake Manager to check the exports sub-directory for new content.
- i. In the **Document Type** field, enter either Document or the Name of a custom document object class that you want to assign to this form instance.

If you enter Document, DocuShare assigns a standard DocuShare document object handle and existing document object class properties to all incoming forms using this socket instance. If you want to use a custom document

- object, you must first create a custom document object class, and then enter the Name of that object class into this field (the name and case must be the same).
- j. In the **Date Format** field, enter the format equivalent you created from information supplied in the table in Chapter 1 of this guide. The default is MM/dd/yyyy, which is equivalent to the standard Form Designer format M/D/YYYY.
  - k. In the **Decimal Character** field, enter the equivalent character (either a period or a comma) that was specified when creating the numeric field on the form. The decimal character separates whole numbers from fractions in floating point and BigDecimal numbers.
3. When you have filled in all of the fields for the socket instance, select **Create**.  
DocuShare creates a unique Content Intake Manager socket instance that monitors the specified exports sub-directory for new form content, then moves the forms to the appropriate collection on the DocuShare site.  
If you have additional forms, repeat these steps to create more socket instances.

## Define the connect agents

You use the LiquidOffice Management Console to define a **connect agent** for **each type of form** that you want DocuShare eForms to handle. You need to define the connect agents before the form designer publishes forms because the designer must reference predefined connect agents.

1. Use your operating system to open the Management Console. For example, on Windows click the **Start** button and then **All Programs | Cardiff LiquidOffice | LiquidOffice Management Console**.
2. In the login window, log in as **administrator**.
3. Select **Connect Agents**.
4. On the toolbar, click the **Add** button.  
The Add New Connect Agent window appears.
5. In the **Connect Agent Name** field, enter a connect agent name.  
*Note: Enter a name that corresponds to the name of the socket instance that you created for the form.*
6. Under **Connect Agent-Type**, select **Export Plugin (write only)** from the menu.
7. Click **Next**.
8. Under **Select Export Plugin**, select **XML Connect Agent** from the menu.
9. Click **Next**.
10. In the **Path** area, double-click the appropriate exports sub-directory. For example: invoice.  
*Note: The Path area displays the sub-directories within the exports directory.*
11. Click the **Finish** button.
12. Click the **Done** button.  
If you have additional forms, repeat these steps to create more connect agents.



## Define an authentication connect agent (optional)

If your forms require digital signing capabilities, you can configure eForms so the identity of the form submitter is captured when a form is accessed from DocuShare and the form submitter is logged into DocuShare as a registered user.

1. Open the LiquidOffice Management Console and log in as **administrator**.
2. Select **Connect Agents**.
3. On the toolbar, click the **Add** button.  
The Add New Connect Agent window appears.
4. In the **Connect Agent Name** field, enter **DSAuthenticate**.
5. Under **Connect Agent-Type**, select **Process** from the menu.
6. Click **Next**.
7. Under **Select Process Plugin**, select **WorkFlowDocuSharePlugin** from the menu.
8. Click **Next**.
9. When the process completes, click **Done**.
10. For forms that require DocuShare authentication, add **?DSAuthenticate=ca** (where ca is the name of the connect agent used in publishing the form) to the form URL.

**Example:** `http://localhost:99/lfserver/CreditReport?DSAuthenticate=invoice`

You may use an optional parameter “DSForm” to add a prefix to the form name when it is published in DocuShare. For example: `http://localhost:99/lfserver/CreditReport?DSAuthenticate=form&DSForm=CreditReport`. This URL must originate from a DocuShare page. You cannot simply enter it in a browser window. This can be done by adding it as a DocuShare URL object.

11. When creating the signature block in Form Designer: open the Properties dialog for the signature object and click the signature tab for **Signature Authority-Authenticate Using**; then select **Click-through (On client)**.

This causes authentication to take place through DocuShare. Any other choice causes authentication to take place through the LiquidOffice server.

## Configure published forms to use connect agents

The user responsible for creating forms installs and uses the Form Designer software. For Form Designer installation instructions, see [Form Designer installation on page 2–7](#). After the designer creates and publishes the forms, you configure them for use with the connect agents.

1. Open the LiquidOffice Management Console.
2. Under **Folders**, open the Forms folder to display the published forms.
3. Double-click a published form.
4. In the Properties window, click the **Data Exports** tab.
5. From the **Add New Export** menu, select a connect agent.

6. Click the **Add** button.

The XML Export Setup window appears.

7. In the **File Name** field, enter a filename. The filename is used to prefix the form title in DocuShare.
8. Under **Document Export Properties**, click the **Include form** checkbox.
9. Click the **Flatten form image** checkbox.

***Note:** If you do not select Flatten form image, then the form content will not be indexed in DocuShare.*

10. Click **OK**; then click **OK** again.

## Form Designer installation

The LiquidOffice Form Designer allows you to create the forms that you will use with DocuShare eForms.

The Form Designer is a discrete software package that is not installed with the eForms add-on installation. The Form Designer has its own install Wizard. DocuShare eForms must be installed and running on a server before you install the Form Designer on a workstation.

Make sure your workstation meets the minimum system requirement for the Form Designer software.

- Windows 7, XP Professional SP2, Vista SP1, Home Edition SP2, or Tablet Edition SP2
- Intel Pentium III or better
- 1 GB RAM minimum
- 50 MB free disk space minimum
- JRE 1.5 or higher. If you do not already have the correct version installed on your workstation, the Wizard will install it for you.

Before you begin installation, have the following information handy. You will need it when you install Form Designer:

- The name, such as **docushare.acme.com**, or the IP address to a running DocuShare eForms server.
- The port number used by the DocuShare eForms server.
- The DocuShare administrator username, password, and domain on the DocuShare eForms server.
- If you access the DocuShare eForms server through a proxy server, you need the full pathname and port number of the proxy server.

To install the Form Designer software:

1. Download the Form Designer software to a workstation that meets the system requirements.
2. If necessary, unzip the Form Designer software package.
3. Do one of the following:
  - On Windows 7, run a command prompt as an administrator. Change the directory (**cd**) to the installation directory and type **setup.bat** to start the installation Wizard.
  - For all other Windows operating systems, double-click **setup** to start the installation Wizard.
4. In the first window displayed by the Wizard, enter the DocuShare eForms server information requested.
  - a. The **DocuShare server ID**; such as docushare.acme.com.
  - b. The **DocuShare server port**; such as 8080.
  - c. The **DocuShare server root**; such as docushare. Your server root is the unique server root name that you provided during eForms installation.
  - d. The **Admin username**; such as admin.
  - e. The **Admin password**; your unique password.
  - f. The **Domain**: the name of the server domain; such as DocuShare.
  - g. If the server is accessed via a proxy server, check **Use Proxy**.
  - h. If you checked Use Proxy, then enter the full pathname of the proxy server in the **Proxy server** field; such as www.ne.acme.com.
  - i. If you checked Use Proxy, then enter port number used by the proxy server in the **Proxy server port** field.
5. When finished, click **Verify Account**.

If the information you entered is valid for the DocuShare eForms server you identified, the Wizard displays a new window.
6. Enter all of the information required by the new window, and click **Install**.

The Wizard installs the Form Designer software.
7. When finished, open the Form Designer. Documentation is available by clicking the **Help** button that is located on the navigation bar.

## Stopping DocuShare eForms

To perform maintenance or updates on the DocuShare eForms server, you must first stop DocuShare and LiquidOffice.

To stop DocuShare and LiquidOffice:

1. Use the **stop\_docushare** command to stop DocuShare.
2. When the stop\_docushare command has finished, use the Task Manager (Windows) or a ps command (Solaris/Linux) to make sure that **dsLiquidOffice** has also stopped.
3. If dsLiquidOffice is still running, use the Task Manager (Windows) or a kill command (Solaris/Linux) to stop the service.

## Starting DocuShare eForms

To restart DocuShare eForms, use the **start\_docushare** command. This command starts both DocuShare and dsLiquidOffice.

## Services window

With DocuShare eForms installed, the server Services window displays both DocuShare and LiquidOffice services. Stop and Restart the service commands apply only to DocuShare; the LiquidOffice service listing is disabled. When you use a Services window command to stop or restart DocuShare, the command also stops or restarts the LiquidOffice service.

## Reconfigure the form server

To reconfigure the LiquidOffice form server, run one of the following command utilities:

- On Windows platforms, run  
**<DSHome>\LiquidOffice\xmlserver\configurator\loserver\_config\_app.bat**
- On Solaris/Linux platforms, run **<DSHome>/LiquidOffice/xmlserver/  
configurator/loserver\_config\_app.sh**

These commands open a LiquidOffice configuration window that allows a logged in LiquidOffice system administrator to make form server configuration changes to accommodate modifications made to database settings.

## Languages

LiquidOffice can be set to display a specific language. To set a language default, log in as administrator to the LiquidOffice Management Console and go to **Server Settings | Languages**. There, you double-click **Languages** to display a menu where you can select a default language. When selecting a language, the first language in the menu becomes the default language.

LiquidOffice Server users can change their own language preference by logging into the form server and going to **MyProfile | Customize | Select a Language**.

## Uninstall the LiquidOffice Form Server from DocuShare eForms



**Caution:** If you want to uninstall DocuShare, you must first uninstall the LiquidOffice Form Server before you uninstall DocuShare, and then set the path environment to DSHome/JDK/bin; where JDK is the installed version of your JAVA, such as jdk1.6.0 (jdk1.5 and higher are supported).

1. **Stop** DocuShare.
2. Remove unwanted eForms files from the directory by starting the DocuShare eForms install Wizard and selecting **DocuShare eForms Clean-up**.
3. To uninstall the **LiquidOffice Form Server** using **command lines**:
  - a. Uninstall the LiquidOffice Form Server by going to the **LiquidOffice\xmlserver** directory and running the command **uninstall -i silent**.  
For Windows, this would be **LiquidOffice\xmlserver\uninstall\uninstall -i silent**.  
For Solaris/Linux, this would be **LiquidOffice/xmlserver/uninstall/sh uninstall -i silent**.

The system removes the LiquidOffice Form Server.
4. To uninstall the **LiquidOffice Form Server** using the **Windows Control Panel**:
  - a. From the Windows Control Panel, select **Add/Remove Programs** (Programs and Features in Windows 2008).
  - b. From the list, select **Cardiff LiquidOffice Server**.
  - c. Click **Change/Remove**.

The system removes the LiquidOffice Form Server.
5. Locate and delete the **LiquidOffice subdirectory** from the DocuShare installation directory.
6. Locate the **monitor.xml** file in the /config directory of your DocuShare installation directory, and open the file using a text editor.
7. In the open file, locate and **delete** the block of code that defines the LiquidOffice server. Delete everything from **<Server>** to **</Server>**:

```
<Server>
  <Name>LiquidOffice</Name>
  <MonitorStart>true</MonitorStart>
  <MonitorStop>true</MonitorStop>
  <MonitorControl>>false</MonitorControl>
  <MonitorStatus>true</MonitorStatus>
  <CanRestart>>false</CanRestart>
  <CanReload>>false</CanReload>
  <MustExist>>false</MustExist>
  <RMIMaxRetry>5</RMIMaxRetry>
  <BeforeStartWait>3000</BeforeStartWait>
  <StartWait>3000</StartWait>
  <AfterStartWait>3000</AfterStartWait>
  <NeedPolicy>true</NeedPolicy>
```

Uninstall the LiquidOffice Form Server from DocuShare eFormsInstallation and configura-

```
<NeedsCredential>>false</NeedsCredential>  
<ServerType>native</ServerType>  
<CommandLineServer>  
  <CommandLineServerParam>
```



```
  </CommandLineServerParam>  
</CommandLineServer>  
</Server>
```

8. In the open file, locate the block of code starting with **<StartSequence>** and ending with **</StartSequence>**, and within that block delete the line **<ServerName>LiquidOffice</ServerName>**.
9. In the open file, locate the block of code starting with **<StopSequence>** and ending with **</StopSequence>**, and within that block delete the line **<ServerName>LiquidOffice</ServerName>**.
10. Save and close the file.
11. **Restart** DocuShare.



## DocuShare, LiquidOffice, and IIS integration

To integrate DocuShare and the LiquidOffice Form Server to run as a single UI on a web site with IIS installed:

1. Go to your DocuShare software installation directory and open the **install.properties** file.  
The path to this file is <DSHome>\backup\liquid-office-server\install.properties.
2. In the open install.properties file, search for the keyword **port**.  
Record the value of this port number. The default port number is 99.
3. Close the install.properties file.
4. Run the IIS Tool (iistool.exe).  
This tool generates the directory C:\Program Files\xerox\DocuShare\tomcat\conf\ntiis.
5. In the ntiis directory, locate and open the **workers.properties** file, add **ajp13, los** to the end of the **worker.list** line.  
For example; **worker.list=ajp13, los**.
6. In the open workers.properties file, add the following lines, if they do not already exist, for DocuShare:  
worker.ajp13.port=8009  
worker.ajp13.host=localhost  
worker.ajp13.type=ajp13  
worker.ajp13.lbfactor=1
7. In the open workers.properties file, add the following lines for LiquidOffice; replacing **xx** with the port number you found in step 2. For example, if the port number is 99, then in the first line, 8xx9 would read 8999.  
worker.los.port=8**xx**9  
worker.los.host=localhost  
worker.los.type=ajp13  
worker.los.lbfactor=1
8. Save and close the workers.properties file.
9. Locate and open the **uriworkermap.properties** file.
10. In the open uriworkermap.properties file, add the following lines to integrate IIS, DocuShare, and the LiquidOffice Form Server.  
**Note:** In these lines, replace **dns hostname** with the host name of your server, such as **maine.docushare.com**.  
#  
# Default worker to be used through our mappings  
#  
default.worker=ajp13

```
liquidoffice.worker=los
#
# Sites to be redirected to Tomcat
#
/examples=$(default.worker)
/examples/*=$(default.worker)
/docushare=$(default.worker)
/docushare/*=$(default.worker)

/localhost/docushare=$(default.worker)
/localhost/docushare/*=$(default.worker)
/lfserver=$(liquidoffice.worker)
/lfserver/*=$(liquidoffice.worker)
/lomc=$(liquidoffice.worker)
/lomc/*=$(liquidoffice.worker)
/lomx=$(liquidoffice.worker)
/lomx/*=$(liquidoffice.worker)
/plugins=$(liquidoffice.worker)
/plugins/*=$(liquidoffice.worker)
/studio=$(liquidoffice.worker)
/studio/*=$(liquidoffice.worker)
/lohelp=$(liquidoffice.worker)
/lohelp/*=$(liquidoffice.worker)
/content=$(liquidoffice.worker)
/content/*=$(liquidoffice.worker)
/images=$(liquidoffice.worker)
/images/*=$(liquidoffice.worker)
/jsp/*=$(liquidoffice.worker)
/doc/*=$(liquidoffice.worker)
/static/*=$(liquidoffice.worker)

/dns hostname/docushare=$(default.worker)
/dns hostname/docushare/*=$(default.worker)
/dns hostname/lfserver=$(liquidoffice.worker)
/dns hostname/lfserver/*=$(liquidoffice.worker)
/dns hostname/lomc=$(liquidoffice.worker)
```

```
/dns hostname/lomc/*=$(liquidoffice.worker)
/dns hostname/lomx=$(liquidoffice.worker)
/dns hostname/lomx/*=$(liquidoffice.worker)
/dns hostname/plugins=$(liquidoffice.worker)
/dns hostname/plugins/*=$(liquidoffice.worker)
/dns hostname/studio=$(liquidoffice.worker)
/dns hostname/studio/*=$(liquidoffice.worker)
/dns hostname/lohelp=$(liquidoffice.worker)
/dns hostname/lohelp/*=$(liquidoffice.worker)
/dns hostname/content=$(liquidoffice.worker)
/dns hostname/content/*=$(liquidoffice.worker)
/dns hostname/images=$(liquidoffice.worker)
/dns hostname/images/*=$(liquidoffice.worker)
/dns hostname/jsp/*=$(liquidoffice.worker)
/dns hostname/doc/*=$(liquidoffice.worker)
/dns hostname/static/*=$(liquidoffice.worker)
```

11. Save and close the uriworkermap.properties file.
12. Double-click **iis\_redirect.reg**.
13. Restart IIS.

