

Installation Guide R8.x

XMLMill for Domino

3.00

xmimill

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1. Preface

This installation guide for Domino R8 describes how to install XMLMill on a Domino R8.x server.

If you have questions, please do not hesitate to send a mail to support@xmlmill.com.

- ☞ *If you need to install XMLMill on a Domino R5.x server please read the Installation Guide for R5 in the same directory as this document.*
- ☞ *If you need to install XMLMill on a Domino R6.x server please read the Installation Guide for R6 in the same directory as this document.*
- ☞ *If you need to install XMLMill on a Domino R7.x server please read the Installation Guide for R7 in the same directory as this document.*
- ☞ *This document is completely generated with the latest version of XMLMill. You can find this document back online on our website http://www.xmlmill.com/rnotes/installation_guide_r8.x.pdf or in the directory **domino/docs** in the download.*

xmlmill

2. Introduction

In our lab XMLMill for Domino R8 was thoroughly tested on:

- ◆ Lotus Domino (r) Server, Release 8.x, August 02, 2007.
- ◆ running in a Windows Server 2003 R2 environment.

This document explains the prerequisites and configuration issues for integrating XMLMill with Domino R8. After completing the instructions, you should be able to run the examples in the usecases database, which is included in the download of the trial version (See **usecases.nsf** in the **domino/usecases** directory in the download).

- ☞ *Although this document describes in detail the installation in a Windows Server 2003 SP2 environment, XMLMill can also be used with Domino R8 in other operating systems such as Unix. The installation steps are the same.*
- ☞ *Currently XMLMill for Domino runs in a variety of environements like Windows, Lunix, AIX, AS/400 and others.*



3. Prerequisites

3.1. R8 release

Currently the **on-line** PDF-generation process only works in the Domino R8/R7/R6 version. The `xmlmillr6` servlet uses JDK 1.3 (or higher), which is included in Domino R8/R7/R6 version. In Domino R5, JDK 1.1.8 is implemented and since this JDK can't be replaced you cannot use XMLMILL to create PDF documents on-the-fly (on request) in R5. You can however use XMLMill in batch (scheduled) in a Domino R5 environment.

Java 6 is supported in Lotus Notes®/Domino 8.5 on all client and server platforms except for Mac. (Note: Java 6 is also known as JDK 1.6 and JDK 1.6.0). Java 5 is supported in Lotus Notes®/Domino 8. (Note: Java 5 is also known as JDK 1.5 and JDK 1.5.0).

3.2. XMLMill for Domino R8

If you haven't already done so, you can download a fully functional trial-version of XMLMill for Domino at <http://www.xmlmill.com> to your Domino server.

Extract the content of the .zip or .tar-file to a new subdirectory in your Domino server.

In the next section we will explain how to prepare your Domino-environment for using XMLMill.

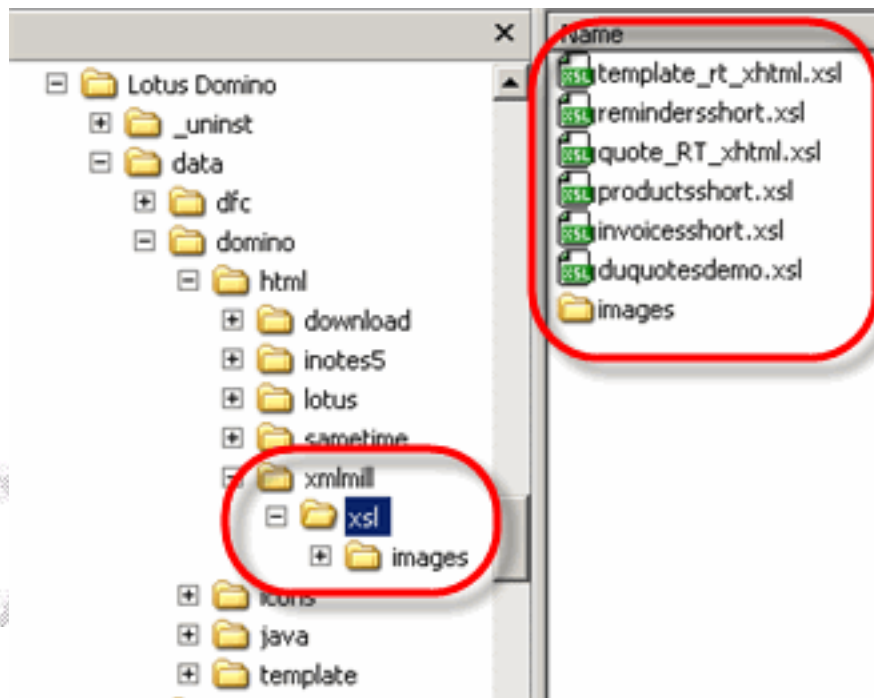
☞ *It is assumed that your Domino server is installed in the directory **C:\Lotus Domino** and that your application-folder is **C:\Lotus Domino\data**. If this is not the case in your environment, you should replace the program- and application directory by the filepaths used in your environment.*



4. Installation notes

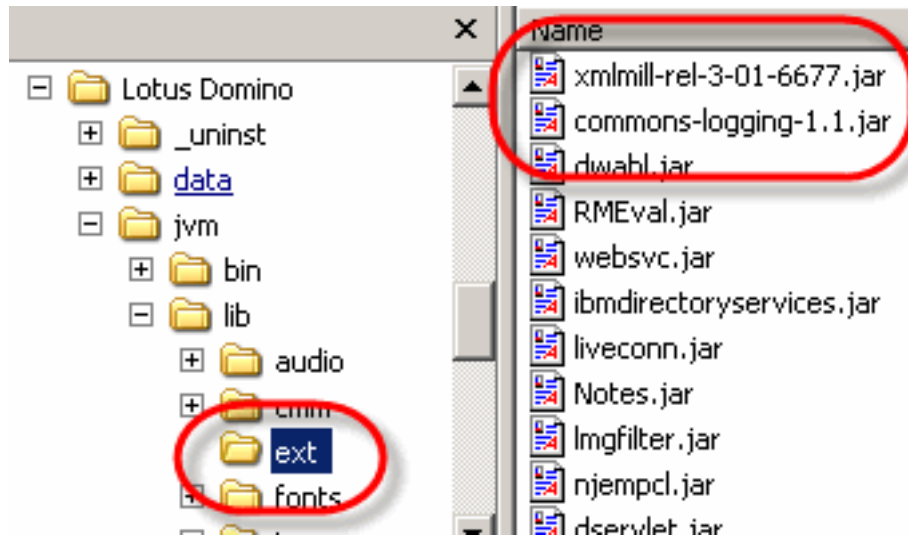
4.1. Create subdirectories

1. On your domino-server locate the directory `\Lotus Domino\data\domino\html`.
2. Create a new directory `xmlmill` in this directory.
3. Create a new subdirectory in the `xmlmill`-directory: `xsl`.
4. Copy all `*.xsl` documents from the download (in the `domino/usecases` directory) into the `xsl` directory.
5. Create a new subdirectory in the `xsl`-directory: `images`.
6. Copy the images from the download (in the `domino\images` directory) in the `xsl\images` directory.
7. Copy the `usecases.nsf` database from the download (in the `domino\usecases` directory) to the `Lotus Domino\data` directory.



4.2. Copy the XMLMill jar files

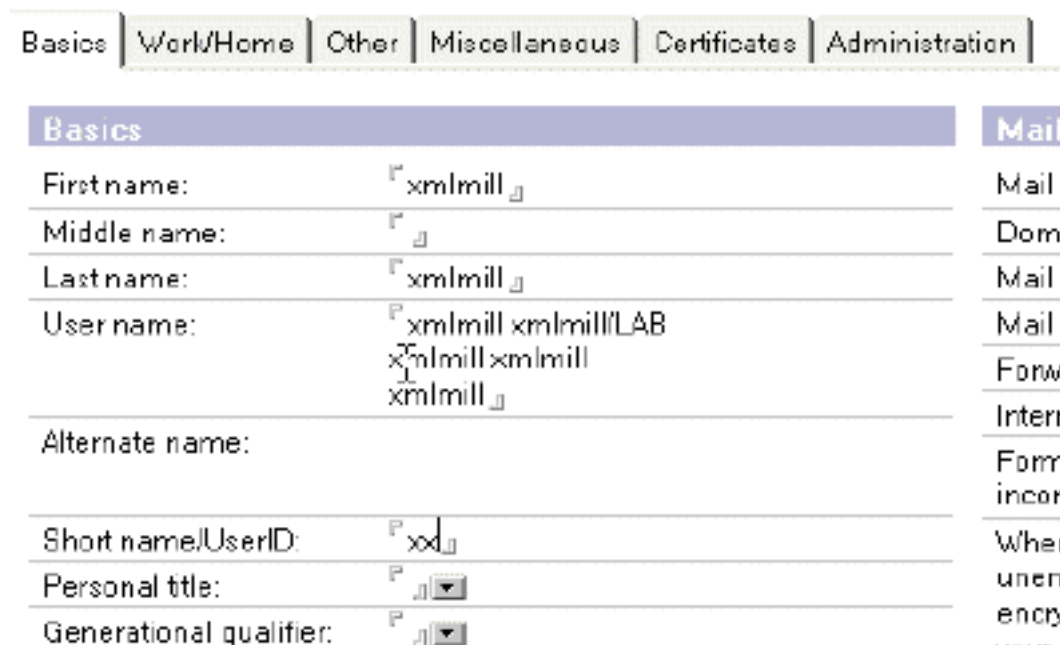
1. Locate the `\Lotus Domino\jvm\lib\ext` directory.
2. Copy following `jar` files from the `lib/` directory (contained in the download): `commons-logging-*.jar`, `xmlmill-*.jar` to this directory.



4.3. Create a user to run the servlet and update the usecases-db ACL

You can use an existing id of your company or create a new id eg. xmlmill to run the servlet. Open the ACL of the **usecases** database and add the xmlmill user to the ACL with at least editor-rights.

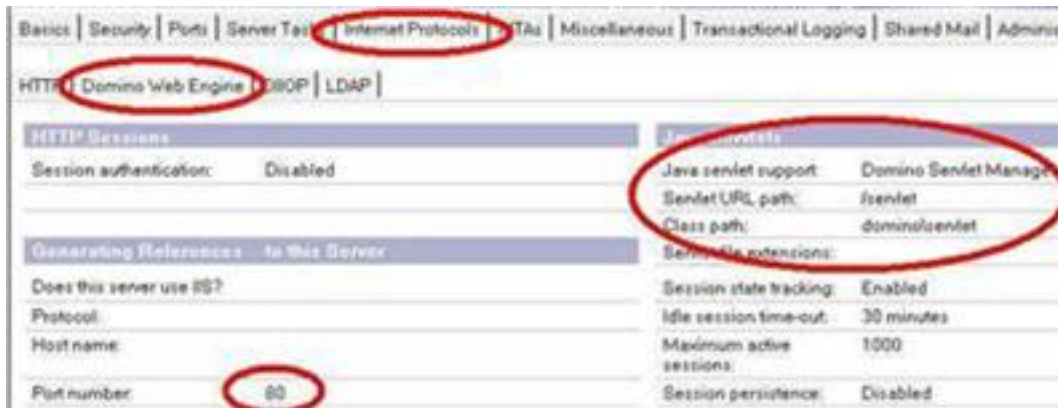
- ☞ If you choose to register a new user and you provided a firstname and a lastname for the user, make sure you enter an alias consisting of only one word in the **Username**-field in the user's person document in the **Domino** directory. You will have to use this alias in the **servlets.properties** file later on (see 4.5.).
- ☞ When a new user is defined make sure the internet password provided is the same as the password that will be defined in the **servlets.properties** file later on (see 4.5.).



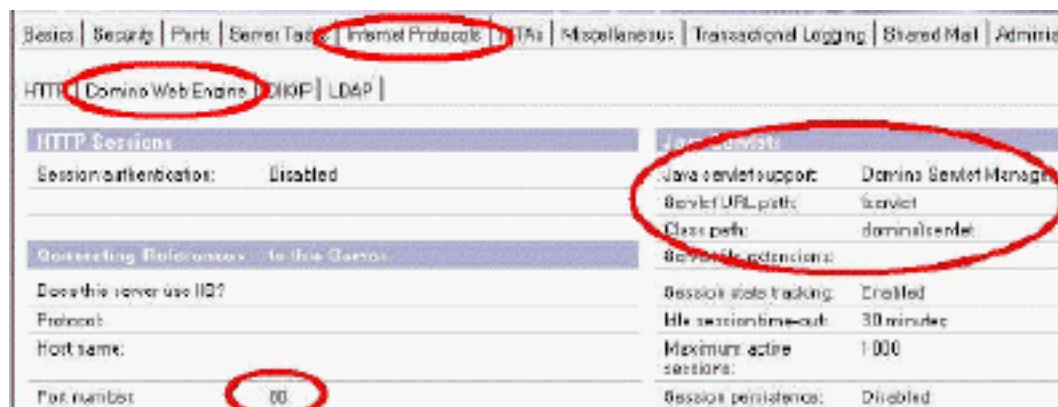
- ☞ The Notes-agent (**GenerateQuote**) will **"run as webuser"**, this means it will run with the accessrights of the xmlmill-user you define in the **servlets.properties** file (see 4.5).

4.4. Check your Domino Server Document in the Domino-directory

In your **Domino** directory go to **servers - server** to open your server document. In your server document locate the tab **security** and make sure that the **xmlmill**-user has the right to **run restricted Lotus Script/Java-agents**.



Locate the tab **Internet Protocols** and **Domino Web Engine**. Enable the **Java Servlet Support** by choosing **Domino Servlet Manager** instead of **None**.



4.5. Create the `servlets.properties` file

The `servlets.properties` file should be created in the `\lotus\domino\data` directory.

4.5.1. Default `servlets.properties` file

Add the following three lines:

```
# Defines an alias name for the com.xmlmill.domino.xmlmillr6 servlet.
servlet.xmlmillr6.code=com.xmlmill.domino.xmlmillr6

# Define the database, username and password. Make user there are no spaces in the
username.
servlet.xmlmillr6.initArgs= db1=usecases.nsf xmlmill xmlmill

# Define that the servlet is initialised when starting the Domino server.
servlets.startup = xmlmillr6
```

☞ Please note that **servlet** in above lines should be all in lowercase. If not, the Domino server will not find the **xmlmillr6** class.

In the second line the **db1** argument defines the database **usecases.nsf** and the servlet should access this database with the user **xmlmill** and password **xmlmill**. In case your username consists of firstname and lastname, you should have created an alias consisting of one word in the person document (see 4.4.) and use it here as username.

The third line we state that the servlet should be loaded at system startup.

A default `servlets.properties` file is included in the download (in the `domino\installation`-directory).

☞ If you have licensed the multiple database version of XMLMill you can add additional databases by adding a additional arguments; **db2**, **db3**, ... with the respective database names, usernames and passwords, as in the example below:

```
servlet.xmlmillr6.code=com.xmlmill.domino.xmlmillr6
servlet.xmlmillr6.initArgs= db1=usecases.nsf xmlmill xmlmill, db2=usecases2.nsf xmlmill
xmlmill, loglevel=DEBUG
servlets.startup = xmlmillr6
```

You should give **xmlmill** at least editor-rights to the usecases database to be able to create and edit the xml-document. (You can limit the xmlmill access-rights to author, but then you have to add an author-field with the user xmlmill in it to the design of the xml-form).

If you don't specify a user and password to access the notes database, the access level of the server will be used.

4.5.2. Adding a **loglevel** parameter

A second argument **loglevel** can be added to define whether or not all warnings, errors and fatalerrors should be logged on the console. There are 7 different loglevels:

- ◆ **FATAL**
- ◆ **ERROR**
- ◆ **WARN**
- ◆ **INFO**
- ◆ **DEBUG**
- ◆ **TRACE**

```
# Defines an alias name for the com.xmlmill.domino.xmlmillr6 servlet.
servlet.xmlmillr6.code=com.xmlmill.domino.xmlmillr6

# Define the database, username and password. Make user there are no spaces in the
username.
servlet.xmlmillr6.initArgs= db1=usecases.nsf xmlmill xmlmill, loglevel=INFO

# Define that the servlet is initialised when starting the Domino server.
servlets.startup = xmlmillr6
```

Set the loglevel to **OFF** if you do not want to clutter your console with messages generated by XMLMill (for example in a production environment).

☞ *Please consult the XMLMill User guide chapter: XMLMill logging, for more information on the loglevel parameters. The XMLMill user guide can be found in the /docs-directory in the download.*

4.5.3. Adding a **realpath** parameter

The **realpath** is an optional parameter that represents the absolute path to the **xmlmill** directory (in the **html/** directory).

This parameter can be used in case the path to the xmlmill directory, which is normally automatically detected by XMLMill, cannot be found.

When this path cannot be found, the log directory will display following error:

```
...
09/11/2004 08:47:48 HTTP JVM: INFO [Thread-115]: Realpath: null
...
09/11/2004 08:47:57 HTTP JVM: INFO [Thread-115]: Transforming with:
null/xsl/yourstylesheet.xsl
...
09/11/2004 08:47:57 HTTP JVM: INFO [Thread-115]:
Catch-error:javax.servlet.ServletException: xsl file not found
```

Note that the **Realpath: null** message is generated. If this is the case, use the **realpath** parameter to define this path manually, as in following example:

```
# Defines an alias name for the com.xmlmill.domino.xmlmillr6 servlet.
servlet.xmlmillr6.code=com.xmlmill.domino.xmlmillr6

# Define the database, username and password. Make user there are no spaces in the
username.
servlet.xmlmillr6.initArgs= db1=usecases.nsf xmlmill xmlmill, loglevel=INFO,
realpath=/lotus domino/data/domino/html/xmlmill

# Define that the servlet is initialised when starting the Domino server.
servlets.startup = xmlmillr6
```

- ☞ The **realpath** parameter contains the path upto and including the **xmlmill** directory.
- ☞ Use this parameter **only** if this error occurs. If not, let XMLMill automatically detect the realpath.

4.5.4. Adding a **config** parameter

It is possible to define your own Type1-fonts. To use an external Type1 font you need:

- ◆ the corresponding font-metrics file (**.afm**-file)
- ◆ the corresponding font-program file (**.pfb** or **.pfa**-file)

The locations of these two files need to be defined in a configuration file. This external configuration file may be placed somewhere on the filesystem but in case of XMLMill for Domino you can best place it in your **/lotus domino/data**-directory. You need to define the location of the configuration file in your `servlets.properties` file, so you should add an extra parameter to the `servlets.properties` file. In this case the `servlets.properties` file could look like this (pay attention to the `config-parameter` in the example below):

```
# Defines an alias name for the com.xmlmill.domino.xmlmillr6 servlet.
servlet.xmlmillr6.code=com.xmlmill.domino.xmlmillr6

# Define the database, username and password. Make user there are no spaces in the
username.
servlet.xmlmillr6.initArgs= db1=usecases.nsf xmlmill xmlmill, loglevel=INFO ,
config=file:/c:/lotus domino/data/config.xml

# Define that the servlet is initialised when starting the Domino server.
servlets.startup = xmlmillr6
```

For more information on defining your own Type1-fonts, please refer to the XMLMill user guide, chapters XMLMill Type1 Fonts and XMLMill Configuration. The XMLMill user guide can be found in the **/docs**-directory in the download.

4.5.5. Adding a **logfile** parameter

It is possible to define a log-file where XMLMill's messages should be sent to (instead of the console):

You need to define the location of the logfile in your `servlets.properties` file, so you should add an extra parameter to the `servlets.properties` file. In this case the `servlets.properties` file could look like this (pay attention to the `logfile-parameter` in the example below):

```
# Defines an alias name for the com.xmlmill.domino.xmlmillr6 servlet.
servlet.xmlmillr6.code=com.xmlmill.domino.xmlmillr6

# Define the database, username and password. Make user there are no spaces in the
username.
servlet.xmlmillr6.initArgs= db1=usecases.nsf xmlmill xmlmill, loglevel=INFO ,
logfile=file:/c:/lotus domino/data/log/xmlmill.txt

# Define that the servlet is initialised when starting the Domino server.
servlets.startup = xmlmillr6
```

- ☞ The value should represent the location and name of the logfile as an URI. The URI should be fully resolved.

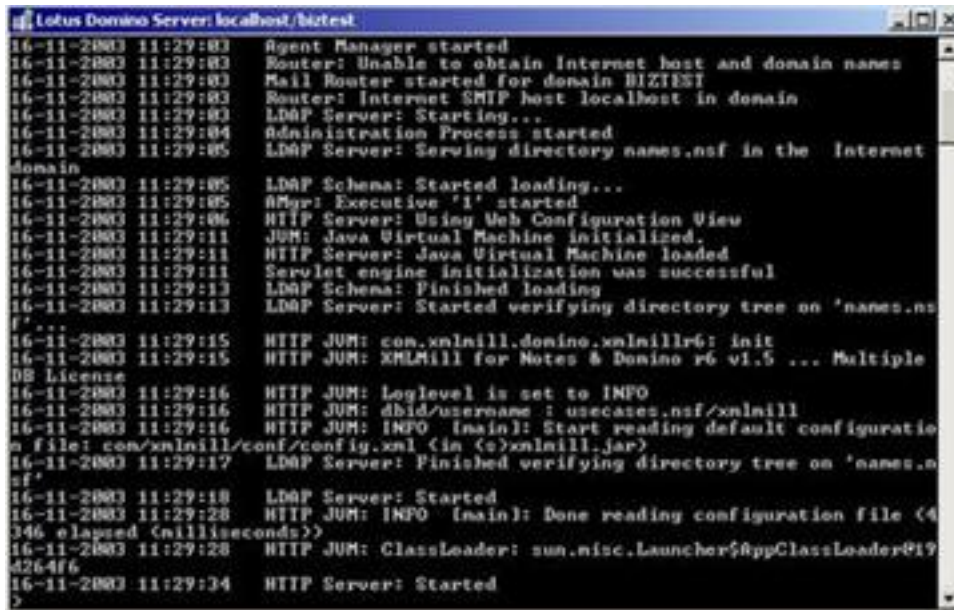
4.6. Restarting your Domino-Server

In the previous sections you made changes to:

1. The Domino-Server document
2. The servlets.properties file

All these changes require that you restart (not reboot) your domino-server. So restart it by issuing the domino-console command **restart server**. If you detect an error after start-up and you need to change something in the server document or the servlets.properties file, do not forget to restart your domino server after you applied the changes.

When you restart your server with the **restart server**-console command, you see the initialization of the servlet.



```
Lotus Domino Server: localhost/biztest
16-11-2003 11:29:03 Agent Manager started
16-11-2003 11:29:03 Router: Unable to obtain Internet host and domain names
16-11-2003 11:29:03 Mail Router started for domain BIZTEST
16-11-2003 11:29:03 Router: Internet SMTP host localhost in domain
16-11-2003 11:29:03 LDAP Server: Starting...
16-11-2003 11:29:04 Administration Process started
16-11-2003 11:29:05 LDAP Server: Serving directory names.nsf in the Internet
domain
16-11-2003 11:29:05 LDAP Schema: Started loading...
16-11-2003 11:29:05 RApp: Executive '1' started
16-11-2003 11:29:06 HTTP Server: Using Web Configuration View
16-11-2003 11:29:11 JVM: Java Virtual Machine initialized.
16-11-2003 11:29:11 HTTP Server: Java Virtual Machine loaded
16-11-2003 11:29:11 Servlet engine initialization was successful
16-11-2003 11:29:13 LDAP Schema: Finished loading
16-11-2003 11:29:13 LDAP Server: Started verifying directory tree on 'names.nsf'
16-11-2003 11:29:15 HTTP JVM: com.xmlmill.domino.xmlmillr6: init
16-11-2003 11:29:15 HTTP JVM: XMLMill for Notes & Domino r6 v1.5 ... Multiple
DB License
16-11-2003 11:29:16 HTTP JVM: Loglevel is set to INFO
16-11-2003 11:29:16 HTTP JVM: dbid/username : usecases.nsf/xmlmill
16-11-2003 11:29:16 HTTP JVM: INFO (main): Start reading default configurati
n file: con/xmlmill/conf/config.xml (in (c:\xmlmill.jar)
16-11-2003 11:29:17 LDAP Server: Finished verifying directory tree on 'names.nsf'
16-11-2003 11:29:18 LDAP Server: Started
16-11-2003 11:29:28 HTTP JVM: INFO (main): Done reading configuration file (4
346 elapsed milliseconds)
16-11-2003 11:29:28 HTTP JVM: ClassLoader: sun.misc.Launcher$AppClassLoader@19
4264f6
16-11-2003 11:29:34 HTTP Server: Started
>
```

4.7. Conclusion

The installation of XMLMill in your Domino R8 environment is now finished. Your environment is ready to use XMLMill for Domino to generate .pdf documents on-line (on the fly).

Before switching to the use cases guide (giving some examples of using XMLMill online and in batch), please read the next chapters for an overview of the difference between XMLMill online and XMLMill batch.

- ☞ The usecase guide can be found on our website at <http://www.xmlmill.com/rnotes/dusecases.pdf> or in the directory **domino/docs/** in the download.
- ☞ Please also consult our [Where should you go next?](#) chapter giving an overview of which documentation is available.

5. XMLMill online

In Domino R8 you can use XMLMill online (this means generating a PDF document on-the-fly from within a browser or a notes client) by calling the XMLMill connector. This section explains how you can do this. For detailed information please refer to the **usecases** database in the download (**domino**\-directory) and to the first use case in the use cases guide **dusecases.pdf** in the download (**domino****docs**-directory).

5.1. Modify the code behind the View PDF link

To try out this example of generating a PDF based on a quotation-form in Notes, you should modify the code behind the **View PDF**-link (usecases database). So open the Quote-form in the designer and modify the code behind the hotspots:



Currently the code calls the **xmlmillr6** servlet on the IP-address 192.168.0.10. You should replace this IP-address by the IP-address or server name of your server.

5.2. Set Runtime Security level

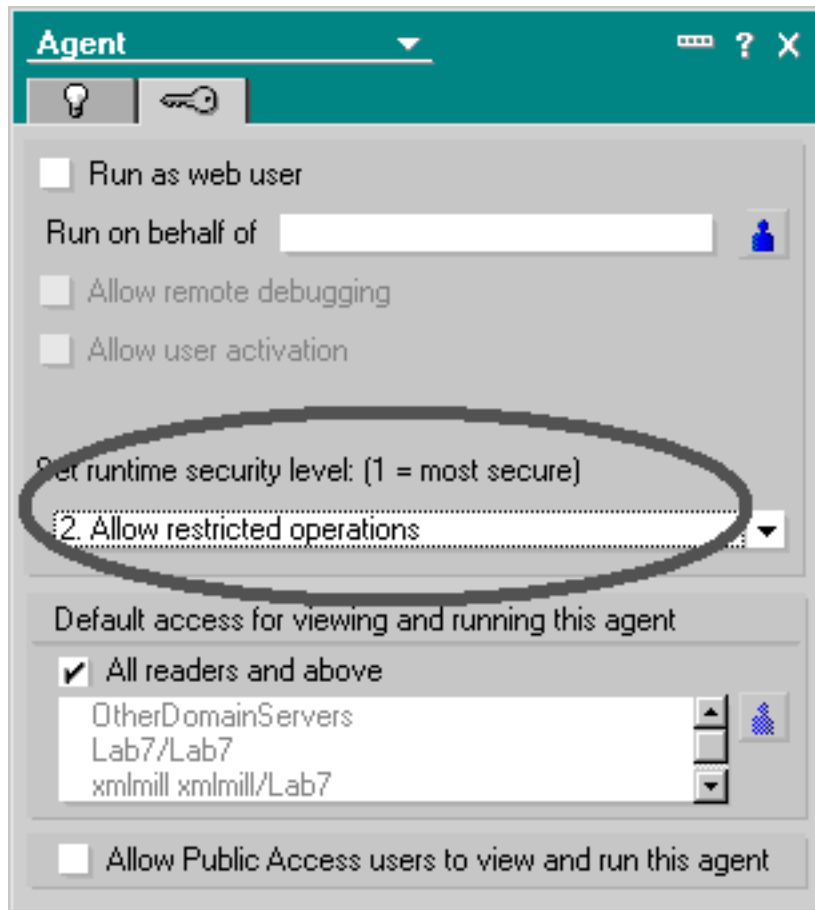
As of Domino R7 it is necessary to define the security level of the agents contained in the **usecases.nsf** database.

The level of security should be at least level 2:

- ◆ 2. Allow restricted operations

Following steps are required:

1. Open the **usecases.nsf** database in Domino Designer 8.
2. Goto the Agents section.
3. Select every agent.
4. Change the security level to minimum level 2.
5. Save the agent to preserve the changes.



5.3. Call the usecases database from your browser

Now you are ready to call the example in the usecases database:

Open your browser and call the database: **http://yourserver/usecases.nsf:**

Before you try out the servlet, verify that the user you have defined in your servlets.properties file (eg. xmlmill) exists in your domino directory, has enough ACL-rights (at least editor-rights) and that he has the proper execution rights to run agents.



Choose **2/0804/P/0002**:

[View PDF](#) [Save PDF](#) [Save and Mail PDF](#)
[View and Save PDF](#) [View, Save and mail PDF](#)

Reference: 2/0804/JP/0002
SendTo: Tania Schuddinck/biztest

- ▶ [Company/Contact](#)
- ▶ [ProductTables](#)
- ▶ [Text Paragraphs](#)
- ▶ [Actors](#)

[Use Case 1](#)
[Quotes](#)
[XML Documents](#)
[Use Case 2](#)
[Products By Suppli](#)
[PDFContainer](#)
[Use Case 3](#)
[To be Invoiced](#)
[Use Case 4](#)
[Overdue Invoices](#)
[All Documents](#)
[By CreationDate](#)

Select **View PDF**, after a few seconds Acrobat reader will open and the generated PDF document is shown in the browser. The first time you execute the servlet after server startup, this will take longer than the 2nd, 3rd time and so on.



6. XMLMill in batch

XMLMill in batch can be used in both Domino R5,R6,R7 and R8. Batch-processing means that you call XMLMill from a scheduled agent.

The .cmd file is placed somewhere on a shared networkdrive, so that your server can access it. If you want to use XMLMill in batch you have to follow the instructions in the Installation guide for R5 **even if you are using R8**. You can find it on our website.

http://www.xmlmill.com/rnotes/installation_guide_r5.pdf or in the directory **domino/docs** in the download.

In the batch files you will call from within your application, you can refer to the **java.exe** contained in the **\\your_server\Lotus\Domino\jvm\bin** directory.

Once you've followed the instructions in the installation guide, please switch to our domino use cases guide **dusecases.pdf** in the download (**domino/docs**)-directory and read the use case 2,3 or 4.

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7. Where should you go next?

Our documentation set consists of following guides:

- ◆ **The installation guide for on-line-generation of PDF's in R8** (this document) can be found on the website at http://www.xmlmill.com/rnotes/installation_guide_r8.pdf or in the directory **domino/docs** in the download. It gives a detailed explanation of preparing your Domino R8-environment for using the XMLMillR6-servlet to generate PDF's on-line.
- ◆ **The domino use cases guide** can be found on the website at <http://www.xmlmill.com/rnotes/dusecases.pdf> or in the directory **domino/docs** in the download. It gives a detailed explanation of using XMLMill for on-line and batch-generation of PDF's following 4 use cases.
- ◆ **The installation guide for batch-generation of PDF's in R8, R7, R6 and R5** can be found on the website at http://www.xmlmill.com/rnotes/installation_guide_r5.pdf or in the directory **domino/docs** in the download. It gives a detailed explanation of preparing your Domino R8, R7, R6 or R5-environment for using the batch process to generate PDF's via a scheduled Notes-agent.
- ◆ **The XMLMill user guide** can be found on the website at <http://www.xmlmill.com/rnotes/userguide.pdf> or in the directory **docs** in the download. It gives a general overview of XMLMill. You can also find more information about using external fonts and logging in this guide.
- ◆ **The XMLMill DTD guide** can be found on the website at <http://www.xmlmill.com/rnotes/dtdguide.pdf> or in the directory **docs** in the download. It gives an overview of the tags that can be used in XMLMill.
- ◆ **The Samples guide** can be found on the website at <http://www.xmlmill.com/rnotes/samplesguide.pdf> or in the directory **docs** in the download. It explains how to generate all examples contained in the download.

After reading this document you need to switch to the use cases guide to try out the use case(s) of interest. To find out more about the concept of XMLMill following chapters of the **XMLMill User Guide**: can be read:

- ◆ Overview
- ◆ XMLMill Logging
- ◆ XMLMill Namespace
- ◆ XMLMill Type1 Fonts
- ◆ XMLMill Configuration
- ◆ XMLMill Interactive
- ◆ XMLMill Batch

If the domino-developer is interested in the tags he may use in XMLMill he has to consult the XMLMill DTD guide.