



Product: Database Accelerator (DBXL)

Title: How to set up server side notifications

This document is meant for users who have installed DBXL and are interested in configuring and using the Notifications functionality.

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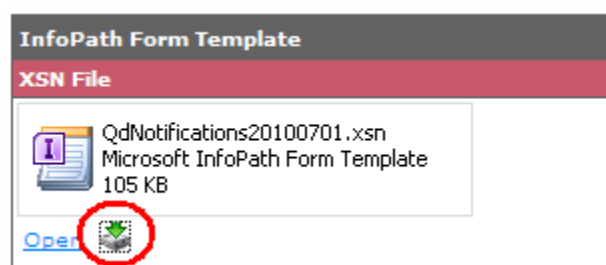


SET UP A NOTIFICATION

- 1) To create a notification, open the DBXL Administration Tool (DAT) and expand the *System Document Types* section.
- 2) Find the Document Type Configuration called QdNotification and click the **Edit Configuration**.

QdMapping	24	
QdNodeNamespaces	24	
QdNotification	0	
QdRatings	0	
QdRefIdInfo	31	
QdSharePointListMaps	25	

- 3) Click on **Download**  button to open the form.



SLA NOTIFICATION

SLA Notification

A SLA Notification will send out an email based on Service Level Agreements. The admin will be able to specify the following parameters:

- 1) **Document Type:** This is the Document Type Configuration upon which this notification will act. The dropdown will be auto-populated with the names of the DocTypes present in your installation of DBXL.
- 2) **Type of Notification:** In this case, we are creating an SLA Notification.
- 3) **Subtype:**
 - a. **Assigned:** Sends an email when a document has been assigned to a person for a certain period of time.
 - b. **Status:** Sends an email when a document has been in a status for a certain period of time. When Status is selected, an additional dropdown field will be shown, which allows the user to select the



Status value. In addition, you can add a Status value other than those available by default using the Custom checkbox and field.

- c. **Inactive:** Sends an email when a document has been inactive for a certain period of time.

DATABASE ACCELERATOR
QDABRA
SOFTWARE

Document type

QdCatalogBase

Type of notification

Service Level Agreement (SLA)

Service Level Agreement (SLA) Notification

An email will be sent out for a document when the number of days that have passed is greater than or equal to the "number of days" entered in the notifications configuration.

Select subtype:

☐ Assigned
 ☐ Status
 ☐ Inactive

- 4) **Number of days:** Allows you to enter the number of days that complete the Subtype specification. For instance, selecting *Inactive* and entering 5 will send a notification to users who have a document assigned to them if the document has been inactive for 5 days or more.

Service Level Agreement (SLA) Notification

An email will be sent out for a document when the number of days that have passed is greater than or equal to the "number of days" entered in the notifications configuration.

Select subtype:

☐ Assigned
 ☐ Status
 ☒ Inactive

Specify number of days for which form has not been modified:

Specify reminder frequency in hours:

- 5) **Reminder frequency:** Indicates the number of hours in between notification emails. Note that the lowest reminder frequency you can have is equal to the frequency of your scheduled tasks.

Note that all SLA Notifications will send email when the number of days that have passed is greater than or equal to the "number of days" entered in the Notification's configuration. Below is a sample SLA email as received by the user, for document type qFormTest, which contains a document that has been inactive for 2 days



qFormTest: first document (document id: 4) requires action. No activity for 2 day(s).

Ernesto Machado [ernestom@qdabra.com]

Sent: Jueves 31/07/2008 05:08 a.m.

To: Ernesto Machado

Hello,

The document named "first document" (document id: 4) has not been modified or updated for 2 or more day(s). Please take the required action. Below is the link to the document.

<http://DBXL-TEST2/QdabraWebService/Documents4/4.xml>

Thanks,
Ernesto Machado.

STAT NOTIFICATION

A STAT Notification will send out an email containing statistics on a specific document type. You will be able to specify the following parameters:

- 1) **Document Type:** This is the DocType upon which this notification will act. The dropdown will be auto-populated with the Document Type names present in your installation of DBXL.
- 2) **Type of Notification:** In this case, we are creating a STAT Notification.
- 3) **Select Subtype:** The statistics can be compiled on a daily, weekly or monthly basis. Selecting *Weekly* will show an additional dropdown which allows the user to specify the day of the week. Selecting *Monthly* will allow the user to enter the day of the month when the action executes.
- 4) **Specify time to be set:** This indicates the time of day to compile the statistics.

DATABASE ACCELERATOR		QDABRA [®] SOFTWARE	
Notification			
Document type	QdCatalogBase		
Type of notification	Statistics (STAT)		
Statistics (STAT) Notification An email is sent, containing statistics for the documents in the selected Document Type. The email will be sent to the user entered in the Assigned To field in the taskpane. Select subtype: ☒ Daily ☐ Weekly ☐ Monthly Specify time to be set:			

You must also specify the user alias of the person who will receive this notification. This is specified in the right-hand pane, in the **Assigned To** and **CC Alias** fields.



<http://www.qdabra.com>

Last updated on 9/13/2012 4:37 PM

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The screenshot shows a web application window titled "Qdabra qForm". Inside, there is a section titled "Editing and Workflow" with a black header. Below the header, there are two buttons: "Save" (with a floppy disk icon) and "Close" (with a red X icon). Below these buttons, the text "Last Modified By: New Document" and "Last Modified Date: New Document" is displayed. Below this, there is a section titled "Routing". Under "Routing", there is a label "Assign To (Alias):" followed by a text input field. Below the input field, there is a section labeled "CC" and "Alias:" with a text input field and a small "x" icon to its right. At the bottom of this section, there is a button labeled "Add CC".

The image below shows an example of a STAT Notification email, as received by the end user.



Hello,

General statistic for document type "[Ernesto-SampleQForm](#)" states:

Overdue Documents

User	As of 3/25/2008
ernestom	1
Total	1

Assigned Documents

User	As of 3/25/2008
ernestom	1
Total	1

Active Documents Status

Status	As of 3/25/2008
Saved	1
Total	1

Daily statistic for document type "Ernesto-SampleQForm" states:

Active Document List

DocId	Reads	Writes	Assigned	Overdue	Name
144	0	1	ernestom	2	second document (created 3/22)
Total	0	1		2	

The STAT email contains a maximum of four distinct tables: **Overdue documents**, **Assigned Documents**, **Active Documents Status** and a detailed **Active Document List**.

Notice that documents are labeled as 'overdue' in a qForm-based solution only after a SLA Notification has been sent out. The **Overdue** column in the **Active Document List** table contains the number of days between the SLA and STAT Notifications.



USER NOTIFICATION

The USER notification enables the users to get a periodic notification of assigned documents. To create a USER notification, specify the following parameters:

- 1) **Document Type:** This is the DocType on which this notification will act upon. The dropdown will be auto-populated with the DocTypes present in your installation of DBXL
- 2) **Type of Notification:** In this case, we are creating a USER Notification.
- 3) **Number of days:** Specify the number of days after which you will receive notifications regarding documents that have been assigned.
- 4) **Reminder frequency:** Indicates the number of hours in between notification emails. Note that the lowest reminder frequency you can have is equal to the frequency of your scheduled tasks.

DATABASE ACCELERATOR Notification		
Document type	QdCatalogBase ▼	
Type of notification	USER ▼	
USER Notification An email will be sent to each user that has been assigned a document for the selected Document Type. Specify number of days for which form has been assigned: Specify reminder frequency in hours:		

Below is an example of a USER notification email as received by the user.



<http://www.qdabra.com>

Last updated on 9/13/2012 4:37 PM

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From: QdAdmin [nakulp@covelix.com]
 To: nakulp@covelix.com
 Cc:
 Subject: List of all assigned documents of type Test_21Feb

Hello,

General statistic for document type "[Test_21Feb](#)" states:

Assigned Document List:

DocId	Name	Overdue Date	Overdue Count **
156	Test1- _22Jan	01/27/2008	29
159	Test2- _22Jan	01/27/2008	29
165	test3-22Feb	02/13/2008	12
168	test4	02/19/2008	6
171	test5	02/25/2008	0

Note:

** The negative value indicates that there are still 'x' number of days for the document to become overdue.

Thanks,
 QdAdmin.



SCHEDULE THE NOTIFICATIONS

All three of these server-side notifications depend on scheduled tasks. The first executable is NotificationSPCaller.exe, which analyzes the path each form has taken through the DBXL workflow and then creates a queue of notification emails that will be sent out. This queue is stored in a SQL table that holds the data necessary to send email to the users. The second executable, QdEmailSenderApplication, will be responsible for generating the notifications, while scheduled tasks will determine the delivery schedule.

INSTALL THE NOTIFICATION EXECUTABLES

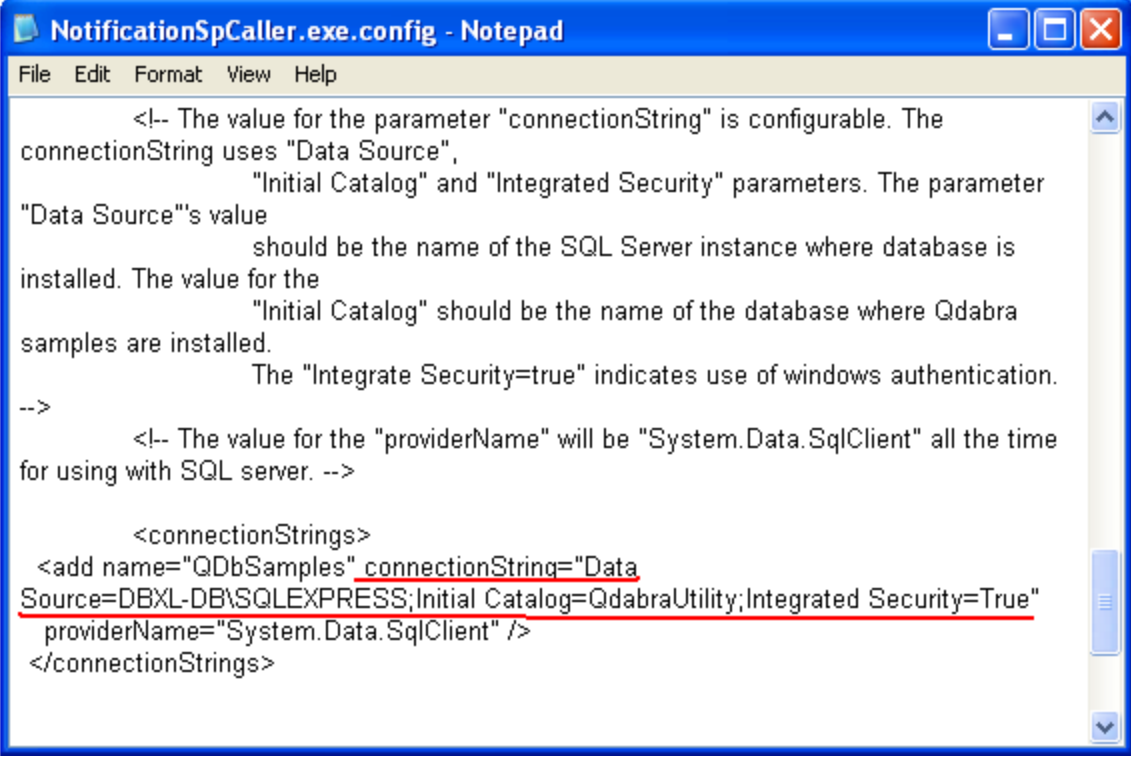
- 1) Download the Notifications Package zip file.
- 2) Unzip the file contents to the folder *C:\Program Files\Qdabra Software*.
- 3) You will see two folders:



CONFIGURING QDNOTIFICATIONSPCALLER

- 1) Open the configuration file located in the QdNotificationsSpCaller folder, called *NotificationSpCaller.exe.config*, in the text editor of your choice.
- 2) Modify the connection string to match your DBXL installation. Be sure to specify a connection to the user specified database.





```

<!-- The value for the parameter "connectionString" is configurable. The
connectionString uses "Data Source",
      "Initial Catalog" and "Integrated Security" parameters. The parameter
"Data Source"'s value
      should be the name of the SQL Server instance where database is
installed. The value for the
      "Initial Catalog" should be the name of the database where Qdabra
samples are installed.
      The "Integrate Security=true" indicates use of windows authentication.
-->

<!-- The value for the "providerName" will be "System.Data.SqlClient" all the time
for using with SQL server. -->

<connectionStrings>
  <add name="QDbSamples" connectionString="Data
Source=DBXL-DB\SQLEXPRESS;Initial Catalog=QdabraUtility;Integrated Security=True"
  providerName="System.Data.SqlClient" />
</connectionStrings>

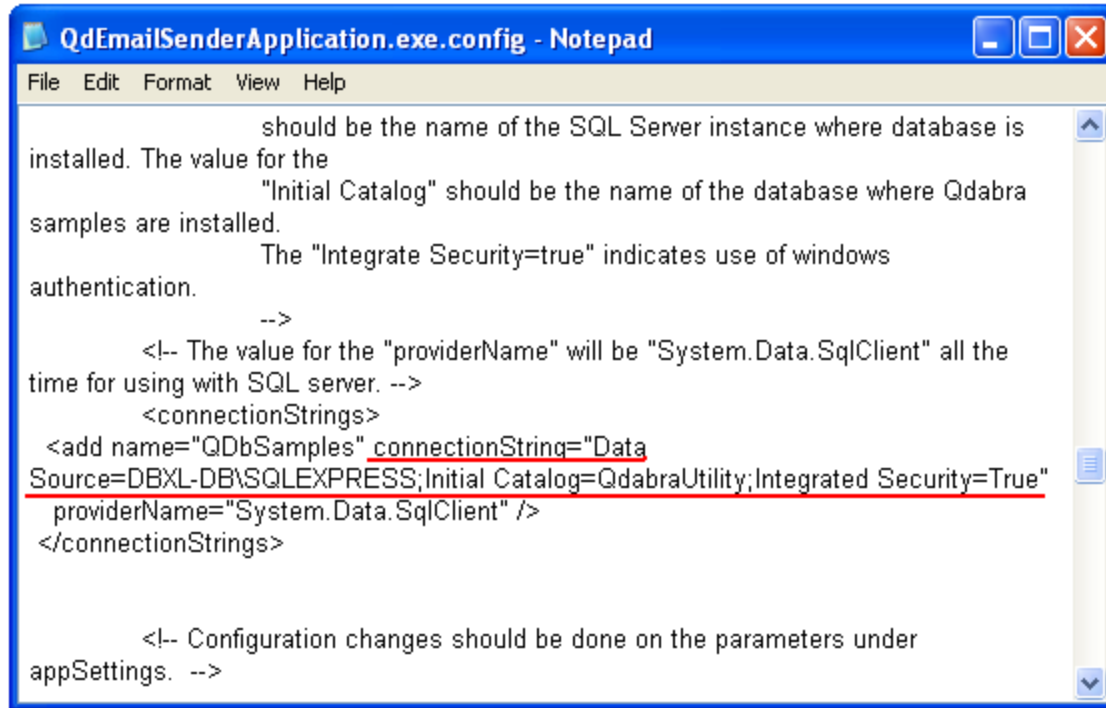
```

Run *NotificationSpCaller.exe* in a command window to test. Note that if there is a problem or error, a log file will be created in the same folder where *QdNotificationSpCaller.exe* is located.

CONFIGURING QDEMAILSENDERAPPLICATION

- 1) Navigate to the subfolder that contains *QdEmailSenderApplication.exe*.
- 2) Open the configuration file, called *QdEmailSenderApplication.exe.config*, in the text editor of your choice.
- 3) Modify the connection string to match your DBXL installation, as done in the previous step above. Save and close the configuration file.





```

should be the name of the SQL Server instance where database is
installed. The value for the
"Initial Catalog" should be the name of the database where Qdabra
samples are installed.
The "Integrate Security=true" indicates use of windows
authentication.
-->
<!-- The value for the "providerName" will be "System.Data.SqlClient" all the
time for using with SQL server. -->
<connectionStrings>
<add name="QDbSamples" connectionString="Data
Source=DBXL-DB\SQLEXPRESS;Initial Catalog=QdabraUtility;Integrated Security=True"
providerName="System.Data.SqlClient" />
</connectionStrings>

<!-- Configuration changes should be done on the parameters under
appSettings. -->

```

- 4) Modify the following fields under `/configuration/appSettings` (for more information see the comments included in the configuration file itself):
 - a. *QdAdminId* is the email address placed in the "From" and "Reply To" fields in the email that will be sent out. This must be a valid email address in order for notifications to work.
 - b. *QdAdminDisplayName* is the name that will be displayed in the "From" field.
 - c. *smtpServer* is the mail server used to send out the email. If you don't know the value for this, contact your system administrator.
 - d. *smtpPort* is the port used to send email, usually left blank if using the default port. Don't set the value unless you will be using a non-standard port to connect.
 - e. *smtpAuth* determines the type of authentication scheme used. The three options are detailed as comments in the config file. The fields *username*, *password* and *domain* are only used if *smtpAuth* is set to "Basic".



```

QdEmailSenderApplication.exe - Notepad
File Edit Format View Help

<!-- Configuration changes should be done on the parameters under appSettings. -->
<appSettings>

    <!-- The value for key QdAdminId is the email address from which the mail
    will be sent out. This could be changed as required. -->
    i. <add key="QdAdminId" value="smitak@covelix.com" />

    <!-- The value for key QdAdminId is the display name for the value of
    QdAdminId. This could be changed as required. -->
    ii. <add key="QdAdminDisplayName" value="QdAdmin" />

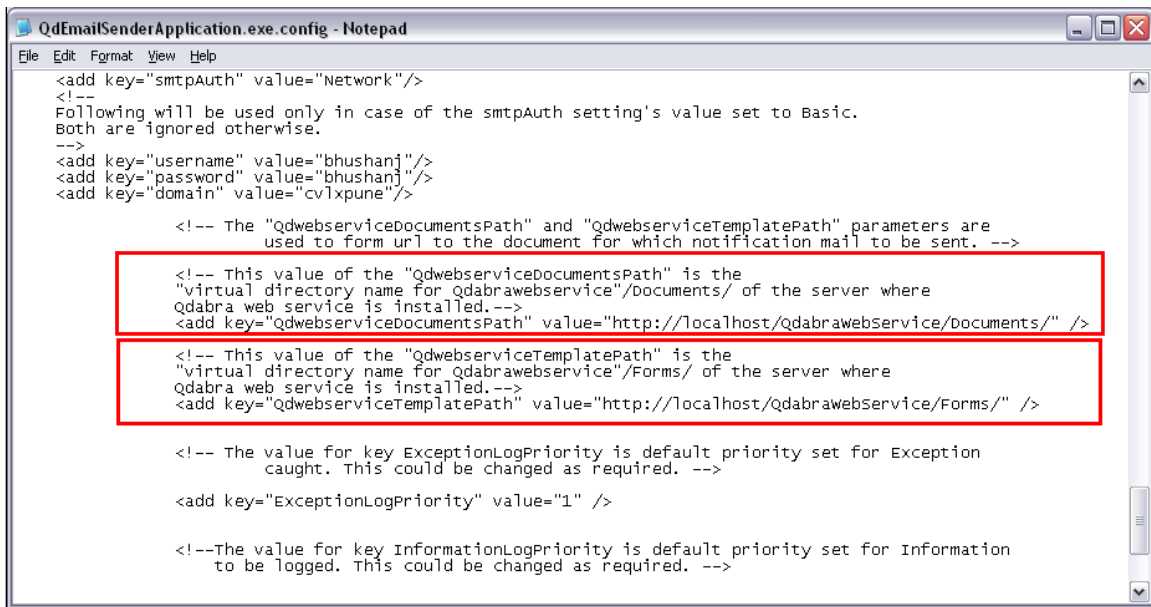
    <!-- The value for key smtpServer is the SMTP server name. This could be
    changed as required.-->
    iii. <add key="smtpServer" value="cvlxmlmail" />

    <!--
    Following setting will be used to connect to a smtp server on a given port.
    Keep the value blank to connect to default smtp port as used by .net framework client.
    -->
    iv. <add key="smtpPort" value="" />

    <!-- Following setting will allow various types of authentication schemes to be used
    while connecting to smtp server. Possible values -
    1. NO - Don't use any smtp authentication.
    2. Network - Use windows integrated authentication.
    3. Basic - Uses given domain, username and password setting to connect to smtp server.
    For now, this uses plain text passwords. In next releases, it would use encrypted
    passwords.
    -->
    v. <add key="smtpAuth" value="Network"/>
    <!--
    Following will be used only in case of the smtpAuth setting's value set to Basic.
    Both are ignored otherwise.
    -->
    <add key="username" value="bhushanji"/>
    <add key="password" value="bhushanji"/>
    <add key="domain" value="cvlxpune"/>
  
```

- 5) Specify the values QdwebserviceDocumentsPath and QdwebserviceTemplatePath parameters that will help form any links that are included in the email notifications. Make sure this server is accessible from the receiver's computer. For instance, using localhost as the servername will not likely work. Always use a trailing slash (/) to finish the path.





```

QdEmailSenderApplication.exe.config - Notepad
File Edit Format View Help
<add key="smtpAuth" value="network"/>
<!--
Following will be used only in case of the smtpAuth setting's value set to Basic.
Both are ignored otherwise.
-->
<add key="username" value="bhushanj"/>
<add key="password" value="bhushanj"/>
<add key="domain" value="cvlxpune"/>

<!-- The "QdwebServiceDocumentsPath" and "QdwebServiceTemplatePath" parameters are
used to form url to the document for which notification mail to be sent. -->
<!-- This value of the "QdwebServiceDocumentsPath" is the
"virtual directory name for QdabraWebService"/Documents/ of the server where
Qdabra web service is installed.-->
<add key="QdwebServiceDocumentsPath" value="http://localhost/QdabraWebService/Documents/" />

<!-- This value of the "QdwebServiceTemplatePath" is the
"virtual directory name for QdabraWebService"/Forms/ of the server where
Qdabra web service is installed.-->
<add key="QdwebServiceTemplatePath" value="http://localhost/QdabraWebService/Forms/" />

<!-- The value for key ExceptionLogPriority is default priority set for Exception
caught. This could be changed as required. -->
<add key="ExceptionLogPriority" value="1" />

<!--The value for key InformationLogPriority is default priority set for Information
to be logged. This could be changed as required. -->

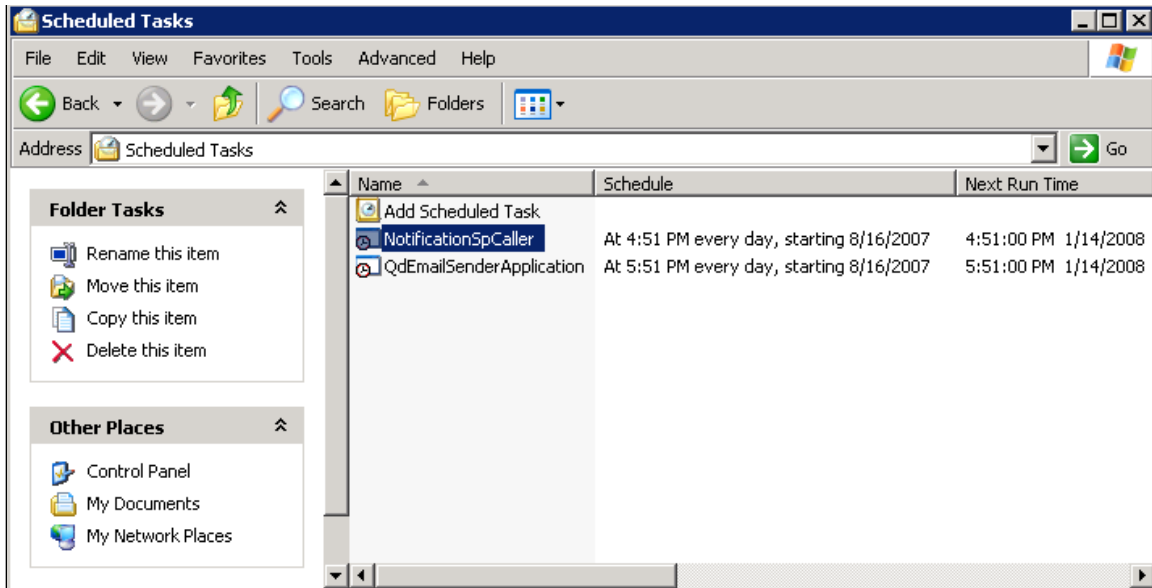
```

- 6) Save the config file and close it.
- 7) Run QdEmailSenderApplication.exe in a command window to test. Note that if there is a problem or error, a log file will be created in the same folder.

ADDING SCHEDULED TASKS

- 1) Go to **Control Panel** and locate **Scheduled Tasks**. Click on **Add Scheduled Task**. In the initial dialog, click **Next**.
- 2) Click on **Browse** and navigate to the location of QdNotificationSpCaller.exe.
- 3) Select QdEmailSenderApplication.exe and click **Next**.
- 4) In the next dialog, name the task and select the task's frequency (daily, weekly, etc.). Click **Next**.
- 5) In the following dialog you may provide further details regarding the scheduling of the task. You may adjust these to fit your needs. When done, click **Next**.
- 6) Specify the password to be used for the pre-populated username. This is the account that will be used to run the notifications task. Click **Next** and then click on **Finish**.





Repeat the same steps for QdEmailSenderApplication.exe, noting that QdNotificationSpCaller.exe must run before QdEmailSenderApplication.exe in order to build the email queue. It is recommended that users keep these two tasks an hour apart.



LOCALIZATION

The administrator is able to change the contents of the email notifications that the users will receive.

QdEmailContentSource.xml, located in the *C:\Program Files\Qdabra*

Software\QdNotifications\QdEmailSenderApplication\LanguageResource folder, contains the email contents, which the user may modify as desired.

This also supports localization, allowing the user to translate the contents of the email to the language of their choice. Note that to switch the language of the emails that are sent, you will need to modify the QdEmailSenderApplication.exe.config file located in *C:\Program*

Files\Qdabra\QdNotifications\QdEmailSenderApplication, making sure that the node `<add key="Language" value="es-AR" />` matches the Language locale you wish to use in QdEmailContentSource.xml.

An example of localization is shown below, with three examples of nodes in the QdEmailContentSource.xml mapped to the email received.

The screenshot illustrates the localization process. The top window shows the XML file `QdEmailContentSource.xml` with the following nodes highlighted in red:

- `<AddressingString>HOLA</AddressingString>`
- `<FooterString>Gracias.</FooterString>`
- `<SlaAssignedMailText>El documento titulado "{0}" (documento: {1}) ha estado asignado a un usuario. El documento "{0}" (documento: {1}) requiere acción, asignado a {4} durante {2} días. Por favor tome acción. A continuación se incluye un enlace al documento.`

The bottom window shows an email received in Spanish. The text in the email is mapped to the XML nodes as follows:

- The email text `Hola,` is mapped to the `<AddressingString>HOLA</AddressingString>` node.
- The email text `Gracias,` is mapped to the `<FooterString>Gracias.</FooterString>` node.
- The email text `El documento titulado "First doc (created 3/20 at 11:30am my time)" (documento: 133) no ha sido modificado durante 3 o más día(s). Por favor tome acción. A continuación se incluye un enlace al documento.` is mapped to the `<SlaAssignedMailText>` node.

