Lotus Notes Content Adapter Introduction

This introduction provides a high-level look at what Lotus Notes Content Adapter Help offers. Here, you will find an overview of Lotus Notes Content Adapter, and links to important Help topics pertaining to Lotus Notes Content Adapter.

Lotus Notes Content Adapter is integrated with Content Network Manager to create Lotus Notes content services. The following sections will help you to learn more about Lotus Notes Content Adapter:

- [Tasks](#) provide the steps necessary to complete a given objective.
- [Concepts](#) information provides background on key aspects of the task or software. They are meant to help you understand the product better.
- See [Reference](#) to get more detail about a specific element on a window or screen.
- [Screenshots](#) contain screen captures of dialog boxes found in Lotus Notes Content Adapter.

Document Information and Copyright Notice

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Lotus Notes Content Adapter Tasks

[Lotus Notes Content Adapter Introduction](#)

Each task is a step-by-step explanation for how to complete a process required to fulfill an objective. Tasks are separated into groups of related tasks that may further be categorized by the degree of importance a task has in helping users meet objectives.

Lotus Notes Content Adapter contains the following tasks:

- [Creating a content service for Lotus Notes](#)
- [Configuring a content service for Lotus Notes](#).
- [Adding settings to a form for a Lotus Notes Service](#).
- [Creating a script to rebuild a Lotus Notes Service](#).
- [Enabling NXT 3 to automatically supply a password to remote Lotus servers](#).
- [Preventing NXT 3 from automatically supplying a password to remote Lotus servers](#)
- [Setting up a remote Windows client to administer the Lotus Notes Content Adapter](#)

Creating a Content Service for Lotus Notes

Lotus_Notes_Content_Adapter_Introduction

To create a content service for the Lotus Notes Content Adapter do the following:

1. Start Content Network Manager.
2. Select the site or folder where you want to create the content service.
3. From the **Action** menu, choose **New** and then **Content Service**.

    or

    Click ![icon] on the toolbar.
4. Set the required **Type** value to Lotus Notes Service.
5. Type values for the required Name, Title, and Index sheets fields.
6. Click **OK** to close the dialog box. The Lotus Notes Service wizard will then start.
7. Provide the information requested by the wizard.

    Note: If the NXT 3 and the Notes servers are not on the same computer, you must supply a password to connect to the Notes server as a step during the wizard. See Enabling NXT 3 to Automatically Supply a Password to Remote Lotus Servers for more information.
8. Save the changes.

    Note: The new content service immediately appears in Content Network Manager, but will not appear in the site until it is completely built and taken online.

See Also

Configuring a Content Service for Lotus Notes

Adding Settings for a Form to a Lotus Notes Service

Creating a Script to Rebuild a Lotus Notes Service

Adding a Content Service in Content Network Manager Help

Content Network Manager Overview

Configuring a Content Service for Lotus Notes

Lotus_Notes_Content_Adapter_Introduction

Lotus_Notes_Service_Properties,_Lotus_Notes_Tab_Screenshot

To configure a content service for Lotus Notes, do the following:

1. Start Content Network Manager.
2. Select the Lotus Notes Service that you want to configure.
3. From the **Action** menu, choose **Properties**.

    or

    Click [icon] on the toolbar.
4. Edit general properties for the content service.
5. In the Lotus Notes Service Properties dialog box, click the **Lotus Notes** tab.
6. Select **Browse** to edit the required **Database** or **Server** fields.

    Note: If the Notes server is remote to the NXT 3 Server and NXT 3 has lost connection with the Notes server, you must supply a password for the Notes server when you view this tab. See Enabling NXT 3 to Automatically Supply a Password to Remote Lotus Servers for more information.
7. Select **Edit** to change the values for the **Views to include** field.
8. If needed, select the optional **Exclude containers that are empty**, **Do not add category titles to table of contents**, **Ignore calculated fields in documents**, **Show graphics in table of contents**, or **Use the first attachment as the document** check boxes.
9. If you did not select the **Use the first attachment as the document** check box, make a selection for how **Attachments display in the table of contents**.
10. Click the **Forms** tab.

    Note: To views the settings corresponding to an existing form, select that form in the **Options for Notes form** field, and make any desired changes. To delete settings for the currently displayed form, click **Remove**. To add settings for a form to the content service, follow the instructions in Adding a Form to Lotus Notes Service.
11. NextPage recommends that you select or type a value for the **Notes field to use as title for document** field.
12. Type a value for the stylesheet to use for the selected form in the **Stylesheet name** and the **Stylesheet type** fields.
13. Select the **Stylesheet is in NXT 3 templates directory** check box if the indicated **Stylesheet name** file is located in the templates directory for the site.
14. Select an option for **Notes fields for export**.
15. Edit the schedule properties for the content service.
16. Click **OK** to close the dialog box.
17. Save the changes.

See Also

[Creating a Content Service for Lotus Notes](#)

[Adding Settings for a Form to a Lotus Notes Service](#)

[Creating a Script to Rebuild a Lotus Notes Service](#)

[Adding a Content Service](#) in Content Network Manager Help

[Content Network Manager Overview](#)

[Form Concept](#)

[View Concept](#)

Adding Settings for a Form to a Lotus Notes Service

Lotus_Notes_Content_Adapter_Introduction

Lotus_Notes_Service_Properties,_Forms_Tab_Screenshot

After completing the wizard for creating the Lotus Notes Service, you may find that you need to add settings for another form (or multiple forms) to the content service.

To add settings for a form to the content service, do the following:

1. Start Content Network Manager.
2. Select the Lotus Notes Service that you want to add a form to.
3. From the **Action** menu, choose **Properties**.

    or

    Click [icon] on the toolbar.
4. Click the **Forms** tab.
5. Click **Add form**.
6. In the Add Notes Form dialog box, select a form from the list or enter a form name.

    Note: Select the **Show form aliases** check box to list the forms' aliases instead of the forms' names.
7. NextPage recommends that you select or type a value for the **Notes field to use as title for document**.
8. Specify the stylesheet to use for the selected view in the **Stylesheet name** and the **Stylesheet type** fields.
9. Select the **Stylesheet is in NXT 3 templates directory** check box if the indicated **Stylesheet name** file is located in the templates directory for the site.
10. Select an option for **Notes fields for export**.
11. Click **OK** to close the dialog box.
12. Save the changes.

See Also

Form_Concept

Configuring a Content Service for Lotus Notes

Creating a Script to Rebuild a Lotus Notes Service

Creating a Script to Rebuild a Lotus Notes Service

[Lotus_Notes_Content_Adapter_Introduction](#)

> **Note:** You must have Lotus' Domino Designer installed in order to complete this task.

There may be times when it is desirable to trigger a rebuild of a [Lotus Notes Service](#) based upon some event that happens within a Lotus Notes client, rather than being based upon a [build schedule](#) from Content Network Manager. Examples of such events could include the following:

• The user clicks on an action button.

• A document within a [view](#) is created, edited, or deleted.

> **Note:** NextPage recommends that you have a good working knowledge of Lotus Notes (including [databases,](#) [fields,](#) [forms,](#) and [views](#)) and LotusScript before attempting the following steps. Without this background knowledge, you may have problems configuring and implementing an automatic update.

Follow these steps for creating and calling the script:

1. Start Lotus Domino Designer.
2. Open the database for which you want to create a script.
3. Open the **Resources** area and select **Script Libraries**.
4. Select **New Script Library**.
5. Select **Edit**, then **Properties**. Make sure Script Library is selected. Enter a **Title** for the new script library.
6. Close the Script Library Properties dialog box.
7. Select the **LotusScript** option for the **Run** property.
8. Select the **Option** property for the script. Ensure that it contains the **Option Public** value.
9. Below the **Option Public** line, type script code that starts the build process. See below for an example of possible code.

   After you enter this code, Domino Designer creates a new section called "Build" as a member of the script library.

10. Save the changes and close the script library view.

    > **Note:** This completes the process of creating a script library function that initiates the NXT 3 indexer and that can be called by a variety of Lotus Notes Agents and actions.

11. To use the script library, you need to call the script library using a trigger event (such as a button on a form or the view toolbar)

    The parameter that needs to be supplied to the script library by the calling event trigger function is the ID of the content service. You can find the **ID** value on the Properties window for the content service in Content Network Manager.

Note: These steps will not create a new content service file, but will rebuild an existing service. Therefore, the content service must already exist in Content Network Manager for the script to work.

Here is an example of how to create the script code referenced in step 9:

```
REM The following function uses the NXT3 COM interface
REM to initiate a rebuild of a Lotus Notes service.
Public Function Build(NXT3CollID As String)
 Dim siteadmin
 Dim context
 Dim session

 Set session = CreateObject("NextPage.NPSession")
 session.CreateSession "<Administrator>", "<password>"
 Set context = session.CreateRequestContext("Default")
 Set siteadmin = context.GetService("<SiteAdministrator>",
 "<NextPage>")

 siteadmin.BuildIndex "<LNotesDocStore>", <NXT3CollID>

 Set siteadmin = Nothing
 Set context = Nothing
 Set session = Nothing
End Function
```

Note: If NXT 3 loses the connection with the Notes server after the initial creation of the content service, you must authenticate with the Notes server again. You can do this in one of two ways: Go to the Notes server, open the Notes client, and supply the password; or you can start Content Network Manager, view the properties of the Lotus Notes content service, click the **Lotus Notes** tab, and supply the password.

See Also

Configuring a Content Service for Lotus Notes

Adding Settings for a Form to a Lotus Notes Service

Enabling NXT 3 to Automatically Supply a Password to Remote Lotus Servers

[Lotus_Notes_Content_Adapter_Introduction](#)

When you create a Lotus Notes Service for a remote Lotus [server](#), every time that the [content service](#) is built or a Note is accessed through NXT 3, the Lotus server requires a password for the user that is specified in the Notes.ini file (located on the computer that is running NXT 3).

However, it is impossible to have someone at the NXT 3 Server computer to enter the password every time a person accesses the NXT 3 site and the content service, or during a build. So, during the installation process for the Lotus Notes Content Adapter, you can select to enable NXT 3 to supply the Lotus server with the password. If you do not select this option during installation or followed the steps for [Preventing NXT 3 from Automatically Supplying a Password to Remote Lotus Servers](#), you can enable the option by doing the following:

> **Note:** These steps should be used with caution since the password will be stored in a plain text file and will be readable by anyone who has access to the computer and the Lotus Notes directory.

> **Note:** If NXT 3 loses the connection with the Notes server after the initial creation of the content service, you must authenticate with the Notes server again. You can do this in one of two ways: Go to the Notes server, open the Notes client, and supply the password; or you can start Content Network Manager, view the properties of the Lotus Notes content service, click the **Lotus Notes** tab, and supply the password.

1. Start the Lotus Notes client that is installed on the same computer as NXT 3.
2. Open the database for which you want to have NXT 3 automatically supply a password.
3. Click the **File** menu, select the **Tools** option, and then select the **User ID** option.
4. In the Basic configuration view, ensure that the following check box is selected:

    For version 5.0 and later of Lotus Notes, the **Don't prompt for a password from other Notes-based programs** check box must be selected.

    For previous versions of Lotus Notes (such as version 4.67), the **Share password with Notes add-ins** check box must be selected.

5. Click **OK** to ensure that any changes are saved.
6. If it is not already there, copy the LNotesExtPwd.dll file to the Lotus Notes directory on the computer where NXT 3 is running. For example, in the C:\Lotus\Notes directory.

    > **Note:** The LNotesExtPwd.dll file is located in the NXT 3\Notes directory where NXT 3 is installed (usually in C:\Program Files\NextPage).

7. Modify Notes.ini (located in the directory where you installed Lotus Notes). Under the [Notes] section, add the following line: `EXTMGR_ADDINS = LNotesExtPwd.`
8. Create a plain text file called LNotesExtPwd.txt in the Data directory under the directory for Lotus Notes. For example, in the C:\Lotus\Notes\Data directory.

9. Open LNotesExtPwd.txt, and type the appropriate password. The password must match the user specified in the Notes.ini file and the password for that user. Additionally, every remote Lotus server that will be accessed from this computer needs to allow access to this same user and password. Do not add anything else to the file. You can change the password at any time by editing this file.

> **Note:** It is important to remember that there are potential security risk issues with having a password in a plain text file.

> This password must correspond to the password for the user that is specified in the Notes.ini file. Notes.ini records the user that last logged on to the Notes client or administrator on that machine. If you log on to that machine as a different user you will either need to change the password in the file or log on to Notes to reset Notes.ini to the proper user for the password in LNotesExtPwd.txt.

10. Save LNotesExtPwd.txt.

See Also

Security Concept

Preventing NXT 3 from Automatically Supplying a Password to Remote Lotus Servers

Preventing NXT 3 from Automatically Supplying a Password to Remote Lotus Servers

Lotus Notes Content Adapter Introduction

When you create a Lotus Notes Service for a remote Lotus server, every time that the content service is built or a Note is accessed through NXT 3, the Lotus server requires a password for the user that is specified in the Notes.ini file (located on the computer that is running NXT 3).

You can configure Notes to automatically supply this password to NXT 3, however this has some potential security issues. You can prevent Notes from automatically supplying the password, but if the Lotus Notes Service continues to connect to a remote Lotus server, the entire system will hang every time the service is built or a user accesses the site.

If you have already enabled this option but now want to disable it, do the following:

> **Note:** After you complete these steps, the entire system will hang every time the service is built or a user accesses the site because the system will wait for a password to be supplied. So, if you follow these steps, you need to remove any content services for this NXT 3 Server that access databases from remote Lotus servers.

1. Delete the plain text file LNotesExtPwd.txt in the Data directory under the directory for Lotus Notes. For example, in the C:\Lotus\Notes\Data directory.
2. Modify Notes.ini (located in the directory where you installed Lotus Notes). Under the [Notes] section, remove the following line: `EXTMGR_ADDINS = LNotesExtPwd`.
3. Save Notes.ini.

Security Concept

Enabling NXT 3 to Automatically Supply a Password for Remote Lotus Servers

Setting up a Remote Windows Client to Administer the Lotus Notes Content Adapter

Lotus_Notes_Content_Adapter_Introduction

If you have set up a remote windows client to run Content Network Manager, you can also set up the same client to remotely administer the Lotus Notes Content Adapter and any Lotus Notes Services on the target server. To do this, perform the following steps:

1. Set Up a Remote Windows or Windows NT Client to Run the Content Network Manager.

2. Copy lcppn21.dll, LNotesProperties.dll, LNPropsHelper.dll, and LNProperties.chm from the NXT 3\bin directory (usually located under C:\Program Files\NextPage) on the source computer to the NXT 3\bin directory on the target computer.

3. Modify CNMgr.ini (in the NXT 3\bin directory) on the target computer. Under the [Service Properties DLLs] section, add the following line: `LNotesDocStore=LNotesPropeties.dll`.

4. Save CNMgr.ini.

Lotus Notes Content Adapter Concepts

Concepts provide background information on specific portions of the product. Links to concepts may be found throughout Help topics.

Lotus Notes Content Adapter covers the following concepts:

- [Attachments](#)
- [Notes database](#)
- [Field](#)
- [Form](#)
- [Links](#)
- [Metadata](#)
- [Security](#)
- [Content adapter](#)
- [View](#)

Attachments Concept

Documents in a Lotus Notes database can contain file attachments.

NXT 3 can handle these attachments in several ways. The **Attachments Display in the Table of Contents** field allows you to select which attachments, if any, show up in the table of contents. The **Index Attachments** check box lets you determine whether to index the contents of the attachments.

It is also possible to use the first attachment for a Note as a replacement for the document itself. This is advantageous in cases where the Note is merely a container for a single attachment and does not contain any content other than metadata. If you select this option, the Note's fields are used as metadata for the first attachment document, which replaces the original Note document in the table of contents. If you do not select the option, the document and metadata remain, and the attachment appears as a child node of the document in the table of contents (unless you also select the **Show no attachments** option button).

See Also

Use the First Attachment as the Document Reference

Database Concept

A Notes database generally contains information about a single area of interest, such as a new product, a set of industry news items, or all the processes, forms, and policy for a department. In short, a Notes database is a single file containing multiple documents.

If you've worked with other database software, you may think of the items within a database as "records." You can think of a document within a Notes database as a record, but a Notes document is more sophisticated than a typical database record, containing rich text, pictures, objects, and many other types of information.

Most databases are stored on one or more Lotus servers, accessible by many users. These are called shared databases. Databases that are used only by you and reside on your computer are called local databases.

Notes are arranged into collections known as [views](). Each view determines a dataset of Notes and how they are arranged (for example, hierarchy, sort order, and so forth) in the Notes client.

Each Note is represented in the XML by an element called `<document>`.

See Also

[Database](#) Reference

Field Concept

Notes store data in fields. A Note can have one or many fields that relate to that Note. However, in the Lotus Notes client, users only see those fields that they are allowed to see. The user may be allowed to view every field, or they may only be allowed to see a few fields. The form determines what fields display when a user views a document, but field security can also limit the fields that display for a user.

Some fields can contain values that are the result of a formula (a computed field). The Lotus Notes Service attempts to execute the formula and use the resulting value. When you select the **Ignore calculated fields** check box, NXT 3 will not attempt the calculation.

The **Notes fields for export** option buttons determine what fields are sent to NXT 3 for each document. Unless you do not create a special index sheet for the content service, all the exported fields are indexed and searchable. The stylesheet for the document further determines what fields the user sees for the document.

Therefore, the data from some fields may appear in a search results list, but the user may not be able to see that data when they view the document. You may want to create a special index sheet to use with the content service that controls how NXT 3 indexes each field from the database. See *Build Utilities Help* for information about creating an index sheet.

Each field is represented in the XML by an element called `<item>`. And each field has data associated with it.

See Also

Security Concept

Notes field for title Reference

Forms Concept

It is helpful to understand how the Lotus Notes client displays information before you create a Lotus Notes Service for the Lotus Notes Content Adapter. Each "Note" contains fielded content, but no information about how it should be formatted or displayed. Instead, one of its fields (called "Form") contains the name of a form that has been designed to display the content. Forms can be thought of as templates or overlays through which a Note can be viewed and possibly edited.

However, based on certain settings, the user, and how the Note is being accessed, the value for the form field can dynamically change to the name of another form, thereby dynamically changing how the Note's data is presented to the user. It is this feature that lends Lotus Notes to workflow applications.

Each Lotus Notes database will have one or more forms through which Notes are displayed. Because the Lotus Notes Service indexes the raw Notes content as XML, it too needs a way to present this content to the end user. The way that this is done is by creating an XSL stylesheet that corresponds to each form that you want to use in the content service, and then telling the browser to use this stylesheet when it receives the Note's content in XML. NXT 3 automatically inserts the reference to the correct stylesheet for the document when it sends the content to the browser.

Each form determines which Notes fields are visible and their layout. However, the Lotus Notes Content Adapter sends all fields (even those that are hidden) to the NXT 3 Server. Therefore, you need to create a stylesheet that does not display content for the fields that you want to keep hidden. Forms can also contain macros and script code as well as text, titles, graphics, and so forth that may appear on the form, but not constitute actual data. The Lotus Notes Content Adapter does not include these things in the XML because most (if not all) of them will not work outside of the Lotus Notes client application.

See Also

Options for Notes Form Reference

Links Concept

There are five basic types of links (or hotspots) that can appear in a Note: Document, View, Database, URL, and Popup text. These links always appear in rich text fields. Each link is converted to XML using the proper element as dictated by the DTD. These elements can be converted to the proper HTML links as desired by the XSL stylesheet. However, the View, Database, and Popup text links cannot be handled through NXT 3, and are therefore ignored by the rich text XSL that is provided with the Lotus Notes Content Adapter. You can modify the XSL to produce whatever effect you want from these links since the data for those links is still provided in the XML.

Metadata Concept

The Lotus Notes Content Adapter provides support for metadata.

Any metadata assigned to a document through the Lotus Notes R5 client interface is automatically assigned as metadata in NXT 3. The document metadata fields in Notes are translated to an XML stream that presents them according to the Dublin Core standard for metadata representation. The field names are translated as shown in the following table:

Notes metadata field name

NXT 3 metadata XML element name

$$Categories

<dc:Categories>

$$Creator

<dc:Creator>

$$Description

<dc:Description>

$$Title

<dc:Title>

$$Type

<dc:Type>

For example, a Notes document has the following values:

$$Categories: `Management procedures`

$$Creator: `John Smith`

$$Description: `This document provides the company's official Standards and Procedures guidelines`

$$Title: `Standards & Procedures`

$$Type:

The following XML metadata content is associated with it:

```
<?xml version='1.0' ?>
<rdf:Description>
<dc:Categories>Management Procedures</dc:Categories>
<dc:Creator>John Smith</dc:Creator>
<dc:Description>This document provides the company's official
Standards and Procedures guidelines</dc:Description>
<dc:Title>Standards &amp; Procedures</dc:Title>
<dc:Type></dc:Type>
```

```
</rdf:Description>
```

The default metadata index sheet provided with NXT 3 processes this XML content and creates the fields "dc:Categories", "dc:Creator", "dc:Description", "dc:Title", and "dc:Type". These metadata fields can then form part of a query in the search of a document.

If the **Use the first attachment as the document** check box is selected, NXT 3 uses the fields for the document as metadata for the attachment.

Security Concept

Lotus Notes Content Adapter does not provide any user-level security features, nor does it natively link to the Lotus Notes security database.

However, a database's content and the users who have access to it can be controlled through NXT 3's default security and access control module (ACM). NextPage suggests that you read the standard NXT 3 documentation (available through your default site, or online at http://docs.nextpage.com) and familiarize yourself with this functionality.

An alternative option is to use the NXT 3 LDAP ACM that is provided with NXT 3. Because Lotus Notes can provide LDAP server capabilities, it is possible for you to configure Notes and have it control NXT 3 through an LDAP connection.

Remote Lotus Servers and Security

Another security issue arises if you enable NXT 3 to supply a password automatically to remote Lotus servers. The password is located in a plain text file in the Lotus Notes directory on the computer that builds the content service.

It is important to understand that any person who has access to that computer and the Lotus Notes directory will have access to the file that contains the password.

You can disable this option if you want to prevent NXT 3 from supplying a password to a Lotus server. However, if you do this, you should not create a Lotus Notes Service for remote Lotus servers.

Lotus Notes Content Adapter Concept

NextPage has developed the Lotus Notes Content Adapter to enable content contained in a Lotus Notes [database](#) to be indexed and accessed as part of a standard NXT 3 site and content network as a [content service](#).

In order to use this content adapter, you must have a Lotus Notes R5 client installed on the same computer as the NXT 3 Server, regardless of whether you will be accessing a local Notes database or one on a separate server. You should also ensure that, using this client, you can open the Notes database that you wish to use for the Lotus Notes Service.

The Lotus Notes Service reads a Notes database and, based on the [views](#) that it has been configured to read, iterates through each of the Notes contained in that view. This phase is termed the "build" or "index" phase.

By iterating through the view, the service is able to determine the hierarchical structure of the view and add this structure to the NXT 3 site at an appropriately designated point in the NXT 3 table of contents. As it iterates through the view, it retrieves each Note, converts it to an XML representation, and indexes the XML along with any attachments associated with the Note. Every XML representation, attachment, and image is given an internal ID that can be used to retrieve it at a later stage. This ID is used by NXT 3 to create the internal association between indexed terms and the documents (Notes) in which they are found, and can be used to link from one document to another. Once the Note has been indexed, users can perform full-text searches against the content from within an NXT 3 site.

The service's responsibilities end at the time that it serves the XML content. However, to be both useful and acceptable to the user, this content needs to be rendered in an appropriate fashion on the user's screen. For this reason, each XML document sent to the browser should contain a reference to an XSL stylesheet that performs the required translation and rendering. In most common scenarios, this stylesheet should replicate the look of the Notes Form through which the content is normally displayed.

In the NXT 3\bin directory where you installed NXT 3, you can find a simple utility (LNFormToXSL) along with documentation on how to use the utility. This utility can help you begin to create an XSL stylesheet that is appropriate for a form. However, you may still need to manually edit the resulting stylesheet in order to fine tune how the documents display in NXT 3.

The Lotus Notes Service also provides a simple XSL stylesheet (LNGeneric.xsl, in the templates directory of NXT 3) that you can use to display all the fields and the corresponding text in a table. You can also use it as a guide for creating a stylesheet that is more specific to the form.

See Also

Stylesheet name Reference

View Concept

Notes are presented to the user through one or more views, where each view determines which Notes are available and their hierarchy and sort order. Thus, although a Note is only stored once in the database, it might be available to the user in 0, 1 or many views.

When deciding what views to index for NXT 3, remember that a single Note may appear in several views. If each view is indexed, then the single Note could appear multiple times in the search results list. Therefore, if two or more views have the same documents, it may be advisable to have NXT 3 index only one of the views.

It is important to note that there is no concept of a hierarchy of views in a Notes database. Instead, there is a single "flat" structure of all views. However, the Notes client is able to emulate a hierarchical structure of views by parsing the name of each view and looking for "parent" elements in each view. For example, a hierarchy can be displayed in the Notes client in the following manner:

```
Tax
 UK
  VAT
  Income Tax
  Pensions
 USA
  Sales Tax
  401k
```

Yet, this hierarchy is actually made up from the following discrete Views:

```
Tax\UK\VAT
Tax\UK\Income Tax
Tax\UK\Pensions
Tax\USA\Sales Tax
Tax\USA\401k
```

If the Lotus Notes Service is not able to connect to the selected Notes database, when you create or edit the content service, you need to give either the view name or its alias. When you supply a name, you need to type it in using the "flat" structure.

See Also

Notes Views in Database Reference

Views Included in Content Service Reference

Expand Hierarchical Names Reference

Lotus Notes Content Adapter Reference

Reference information provides more details for an element within a step of a task. For example, a step requiring inclusion of an ID would have a link from the word ID to reference information titled ID Reference. The ID Reference would indicate what characters are valid for an ID, whether the property is required, and other pertinent information related to IDs.

The following reference information is relevant for the Lotus Notes Content Adapter:

- **Server**
- **Database**
- **Views in database**
- **Views included in content service**
- **Show view aliases**
- **Expand hierarchical names**
- **Exclude containers that are empty**
- **Do not add category titles to table of contents**
- **Ignore calculated fields in documents**
- **Show graphics in table of contents**
- **Treat resource image references like embedded images**
- **Use the first attachment as the document**
- **Index attachments**
- **Attachments display in the table of contents**
- **Notes field for to use as title for document**
- **Notes fields for export**
- **Stylesheet name**
- **Stylesheet type**
- **Stylesheet is in NXT 3 templates directory**
- **Notes forms**
- **Show form aliases**

Lotus Notes Service Database Overview

The following reference information details the Lotus Server and Database fields:

- Lotus Notes **server**
- **Database**

Server Reference

The **Server** field for the Lotus Notes Service contains the name of the Lotus server that uses the database that you want to use for the content service. The Lotus server can be a Lotus Notes server or a Lotus Domino server.

To edit this field, you must click **Browse** to open the Choose Server window.

Choose **--Local--** if the database that you want to use if located on the same computer that is running NXT 3. Otherwise, you can choose a server from the list, or type in a server name.

If you create a content service for Lotus servers that are remote to the computer that is running NXT 3, you may want to enable NXT 3 to automatically supply a password for builds and for when users try to access the documents through the NXT 3 site.

> **Note:** If NXT 3 loses the connection with the Notes server after the initial creation of the content service, you must authenticate with the Notes server again. You can do this in one of two ways: Go to the Notes server, open the Notes client, and supply the password; or you can start Content Network Manager, view the properties of the Lotus Notes content service, click the **Lotus Notes** tab, and supply the password.

Database Reference

The **Database** field allows you to enter the file name of a Lotus Notes database to use for the content service. You can also use the **Browse** button to locate the database and have the name and path entered for you.

If the database is local (it is stored on the NXT 3 Server machine), this value can either be the full path to the database on the local computer (this is what happens when you use the **Browse** button), or the relative path to the database file name from the Data directory where Lotus Notes has been installed (for example, C:\Lotus\Notes\Data). If the database is not local, then you need to enter a relative path from the Data directory to the database on the remote Lotus server.

> **Note:** You achieve better performance results when you use databases that are local to the NXT 3 Server machine.

Lotus Notes Service Views Overview

The following reference information details the Lotus Notes properties for views:
- **Notes views in database**
- **Views included in content service**
- **Show view aliases**
- **Expand hierarchical names**

Notes Views in Database Reference

This field lists all the views that are associated with the selected database. You can select a view or sub-view and then add it to the **Views included in content service** field. Selecting the **Show view aliases** check box changes how the views display in this field.

If Content Network Manager is not able to connect to Notes or the specified database, this field is empty, and you must manually enter the view name or alias information in the field before adding it to the **Views included in content service** field. Separate views with a semicolon (;) before adding them to the included views list, or simply type and add the views one by one.

Views Included in Content Service Reference

This field lists all the views that have been added from the **Notes views in database** field.

You can specify which views are indexed by selecting the **I** check box that appears in front of each view. To specify which views appear in the table of contents, select the **T** check box in front of the views that you want to include. The check boxes are not mutually exclusive. Thus, you can have either one or both selected for each view.

Remove a view from the field by highlighting one or more views and clicking **Remove**. Removing a view also removes all sub-views associated with that view.

This field also allows you to manually change the order of the views so that they display how you want in the site's table of contents.

The field must list at least one view for you to be able to continue.

> **Note:** The Lotus Notes Service uses the view name in the node paths. If you change the view name to an alias of the same Lotus Notes view and rebuild the content service, the rebuild fails because each document in the new view has an ID that already exists in the old view. You need to create a new Lotus Notes Service if you change the view name in the content service to an alias of the same view.

Show View Aliases Reference

When you select this check box, the **Notes views in database** values change to display the alias (when the check box is selected) or the name (when the check box is not selected) of the views.

This field is provided as a convenience for those who have a good understanding of how the Notes database is designed, and for those who are familiar with the aliases given to the views.

Expand Hierarchical Names Reference

This option is used when Content Network Manager cannot access the Lotus Notes database when you set up the **Views Included in Content Service**.

If you select this option, Lotus Notes Service includes views that hierarchically come under the view that you enter in the **Notes views in database** field.

If you do not select this option, Lotus Notes Service only includes the specific view that you enter in the **Notes views in database** field.

See Also

Views Concept for information about view hierarchy.

Lotus Notes Service General Options Overview

The following reference information details the Lotus Notes Adapter General Options fields:

- **Exclude containers that are empty**
- **Do not add category titles to table of contents**
- **Ignore calculated fields in documents**
- **Show graphics in table of contents**
- **Treat resource image references like embedded images**

Exclude Containers That Are Empty Reference

Select this check box for the Lotus Notes Service when you do not want views, folders, and other similar items that do not contain any Notes to be included in the NXT 3 table of contents.

If you leave this option cleared, folders that do not contain any children display in the table of contents as folders, but do not have anything beneath them in the tree structure of the site.

Do Not Add Category Titles To Table Of Contents Reference

Select this check box for the Lotus Notes Service when you do not want category titles from the view for a Notes database to appear as nodes in the table of contents. When this check box is selected, no nodes are created for categories associated with the view.

For example, a Notes database could have the following structure:

```
View
 Category1
  CategoryA
   Document1
   Document2
 Category2
  CategoryB
   Document1
   Document3
 Category3
  CategoryC
   Document4
```

If you select this check box, the table of contents in NXT 3 looks like the following:

```
View
 Document1
 Document2
 Document1
```

```
Document3
Document4
```

Ignore Calculated Fields in Documents Reference

Select this check box for the Lotus Notes Service when you do not want formulas executed to produce values for computed [fields](#).

This value only applies to the XML generated from the document. Formulas are executed if needed for category names, document titles, and so forth, even if this check box is selected.

Show Graphics in Table of Contents Reference

Select this check box for the Lotus Notes Service when you want graphics files to appear in the table of contents as child nodes for the document in which they appear.

By default, graphics are not visible in the table of contents but they can still be seen within documents.

Treat Resource Image References like Embedded Images Reference

> **Note:** Lotus Notes Content Adapter only supports image resources in the same database. References to image resources in other databases do not work.

By default, the Lotus Notes Service creates a hidden folder called $Images at the bottom of the table of contents for the [content service](#). This folder contains all the image resources for the [database](#) (using the names of those resources as the node names). The documents that reference image resources can reference those images in the XML.

However, if you select the **Treat resource image references like embedded images** check box, Lotus Notes Service handles the resource image references in the same manner that it handles embedded images: the resource image is made to be a child node of the document. This setting is useful if you have a lot of resource images that aren't used at all by the documents. If you have documents that use resource images, it is probably more useful not to select this option.

However, if you do select this option when most of the documents in a content service have a reference to a resource image, each document has a child node of the image. This type of content service is very inefficient. In this case, it is more efficient to have the resource images in the $Images folder, according to the default.

See Also

[Show Graphics in Table of Contents](#) [Reference](#)

Lotus Notes Service Attachment Options Overview

The following reference information details the Lotus Notes Adapter Attachment fields:

- **Use the first attachment as the document**
- **Index attachments**
- **Attachments display in the table of contents**

Use the First Attachment as the Document Reference

Certain Notes databases may contain documents that have fields that effectively only contain metadata relating to an attachment that is also contained in the document. In these cases, it is common for the administrator to want the attachment to appear directly under the view branch in the NXT 3 table of contents rather than under a branch corresponding to the Notes document. The **Use the first attachment as the document** check box allows you to select this mode of operation. In these cases, the fields for the original Note document are used as metadata for the attachment that replaces it.

> **Note:** The metadata produced here may not conform to the Dublin Core standard.

When you select this option, if a Note has a link to the document that is being replaced by its first attachment, then the link will not work because the document itself no longer exists in the content service.

In cases where a Note does not have an attachment, and **Use the first attachment as the document** has been selected, the Note will still be provided, along with its metadata. If a Note has multiple attachments and this option is selected, the remaining attachments are left out of the content service. In other words, they will not be available through the NXT 3 site. So, if you have one or more Notes documents that have more than one attachment, you should not select this option.

When you select this option, you will not be able to select an option for how **Attachments display in the table of contents**.

Index Attachments Reference

By default, NXT 3 indexes the contents of all supported attachments: Plain text, HTML, XML, Adobe PDF, Microsoft Word, Microsoft Excel, Microsoft Powerpoint, and Corel WordPerfect.

During the creation of the Lotus Notes content service (in the creation wizard), you can change the default by clearing the **Index attachments** check box. This prevents NXT 3 from indexing any attachments.

After you create the content service, this check box on the **Lotus Notes** tab of the Properties window is unavailable: you cannot change the selection. This means that you must decide at the time that you create the content service whether you want NXT 3 to index attachments.

See Also

Attachments Display in the Table of Contents Reference

This field has three options to choose from.

> **Note:** If **[Use the first attachment as the document](#)** has been selected, you cannot make a selection for this property.

The three options for how [attachments](#) display in the table of contents are as follows:

- **Show every attachment**. When this option button is selected, all the attachments for every document appear in the table of contents.
- **Show only the attachments that can be indexed**. Selecting this option button ensures that only attachments that NXT 3 can index are included in the table of contents. NXT 3 indexes certain files based on the file extension.

  > See **[Index Attachments Reference](#)** for information about the attachments that NXT 3 indexes.

- **Show no attachments**. If this option button is selected, no attachments are viewable in the table of contents.

Field Settings for Lotus Notes Form Overview

The following reference information details the Settings for Lotus Notes Form fields:

- **[Title field](#)**
- **[Notes fields for export](#)**

Notes Field to Use as Title for Document Reference

For the **Notes Field to Use as Title for Document**, you can select a [field](#) from the list, or type a field manually. You can specify either the field name or its alias.

The list of fields is derived from the [form](#) for which you are creating settings for the [content service](#).

The value of the selected field is used by NXT 3 to create a title for the document. Therefore, you should choose a field that has a unique value for every document. Additionally, since the setting is form-based, it is only used for documents that use the specified form as the default form.

Notes Fields for Export Reference

Notes fields for export has three options to choose from. The options affect what [fields](#) from a document are exported to XML by the Lotus Notes Content Adapter. The [form](#) specified by the document is used by the content service to determine what stylesheet, field for title, and exported fields to use.

The options are as follows:

- **Export only fields referenced by the default form**. When you select this option button, only the fields that the document's default form references are used in the [content service](#).

    For example, documents in a database have **Name**, **Address**, and **PhoneNumber** fields. If the default form only uses **Name** and **Address**, then only those fields are streamed back to NXT 3. However, if the default form references all three, then all the fields get sent in the XML stream.

- **Export only fields referenced in this form**. For this option button, you can select a form to use or you can manually enter the form name or alias. Only fields that are used by the selected form are used in the content service.

    The results of this option are basically the same as for exporting only fields referenced by the default form, except that you select which form to use. So, whatever fields the selected form uses are streamed back to the server, regardless of the fields that a document actually has.

    Note: If you select a form that uses fields that are not used in a document, then the document returns empty values for each field referenced by the form.

- **Export all fields**. When you select this option button, all the fields associated with a Note are included in the content service, regardless of what fields the form specifies.

    This option sends back in the XML stream every field for every document. Users of the NXT 3 site are able to search on the content of all of those fields and see only the fields that the XSL stylesheet allows.

Stylesheet Settings for Lotus Notes Form Overview

The following reference information details the More Settings for Lotus Notes Form fields:

- [**Stylesheet name**](#)
- [**Stylesheet type**](#)
- [**Stylesheet is in NXT 3 templates directory**](#)

Stylesheet Name Reference

The value for this field is the file name of the stylesheet that is used to display documents that use the selected form.

Enter the stylesheet file name in the field provided if it is in the Templates directory for the site. If it is, make sure the [**Stylesheet is in NXT 3 templates directory**](#) check box is selected.

You can also enter the URL path to a stylesheet in this field. If you do this, clear the **Stylesheet is in NXT 3 templates directory** check box.

Lotus Notes Content Adapter comes with a sample stylesheet (LNGeneric.xsl) that you can use for displaying your Notes data. However, this stylesheet is very simple and will not keep the same formatting that the Notes client displays. NextPage suggests that you

create a unique stylesheet for every form that you will use in the Lotus Notes Service. To help you begin creating this stylesheet, you can use the LNFormToXML utility (available in the NXT 3\bin folder where you installed NXT 3. Usually this is under C:\Program Files\NextPage) for the Lotus Notes Service. Optionally, you can contact NextPage Professional Services to have them create stylesheets for you.

Stylesheet Type Reference

For the **Stylesheet type** field in the Lotus Notes Service, choose the appropriate content type for the stylesheet that you specified in the **Stylesheet name** field. If the content type is not listed, enter a value manually.

Typically, XML documents use the **text/xsl** type (for extensible stylesheet language files), and HTML documents use the **text/css** type (for cascading stylesheets). Since the Lotus Notes Content Adapter creates XML documents, you may want to use XSL stylesheets to display the content.

Stylesheet is in NXT 3 Templates Directory Reference

Select this check box for the Lotus Notes Service when the file specified in the **Stylesheet name** field is located in the templates directory for the NXT 3 site.

When this option is selected, the system uses a Replacement Variable to reference the stylesheet (`<!-- #TEMPLATES:<Stylesheet name> -->`, where <Stylesheet name> is the value of the **Stylesheet name** field).

See Also

NXT 3 Replacement Variables in Requesting Content from NXT 3 Help

Lotus Notes Form-Based Settings Overview

To add settings for another form, choose the **Add settings for a new Notes form** option button. Select a new form to add settings for from the list, or enter a form name or alias in the field provided. Click **Next** to advance to the next wizard page where you can enter the settings for the new form.

To change the settings for a form that you created with the wizard, choose the **Modify settings created for form** option button. Choose the form that has the settings you want to change, and then click **Next**.

When you are done adding or modifying all the forms for the content service, choose the **Continue the creation wizard** option button and click **Next**.

> **Note:** To remove a form that you added while using the wizard, you must finish the wizard and then manually remove the form from the Properties window of the content service. See Configuring a Content Service for Lotus Notes.

Options for Notes Form Reference

This field contains a list of all forms that have had settings added to the content service.

If a Note's default form has not had settings added to the content service, NXT 3 will use the "default settings" values instead.

To add settings for a form to the content service, follow the steps in Adding settings for a form for the content service.

To remove settings for a form, choose it from the list, and then click **Remove**.

The settings that you can edit for the Notes form are as follows:

- **Notes field to use as title for document**
- **Stylesheet name**
- **Stylesheet type**
- **Stylesheet is in NXT 3 templates directory**
- **Notes fields for export**

Show Form Aliases Reference

This check box is available in the Add Notes Form dialog box for the Lotus Notes Service.

When you select this check box, the **Lotus Notes form** values change to display the aliases of the forms. When you clear this check box, the values change to display the names of the forms.

This option is provided as a convenience for those who have a good understanding of how the Notes database is designed, and for those who are familiar with the aliases given to the forms.

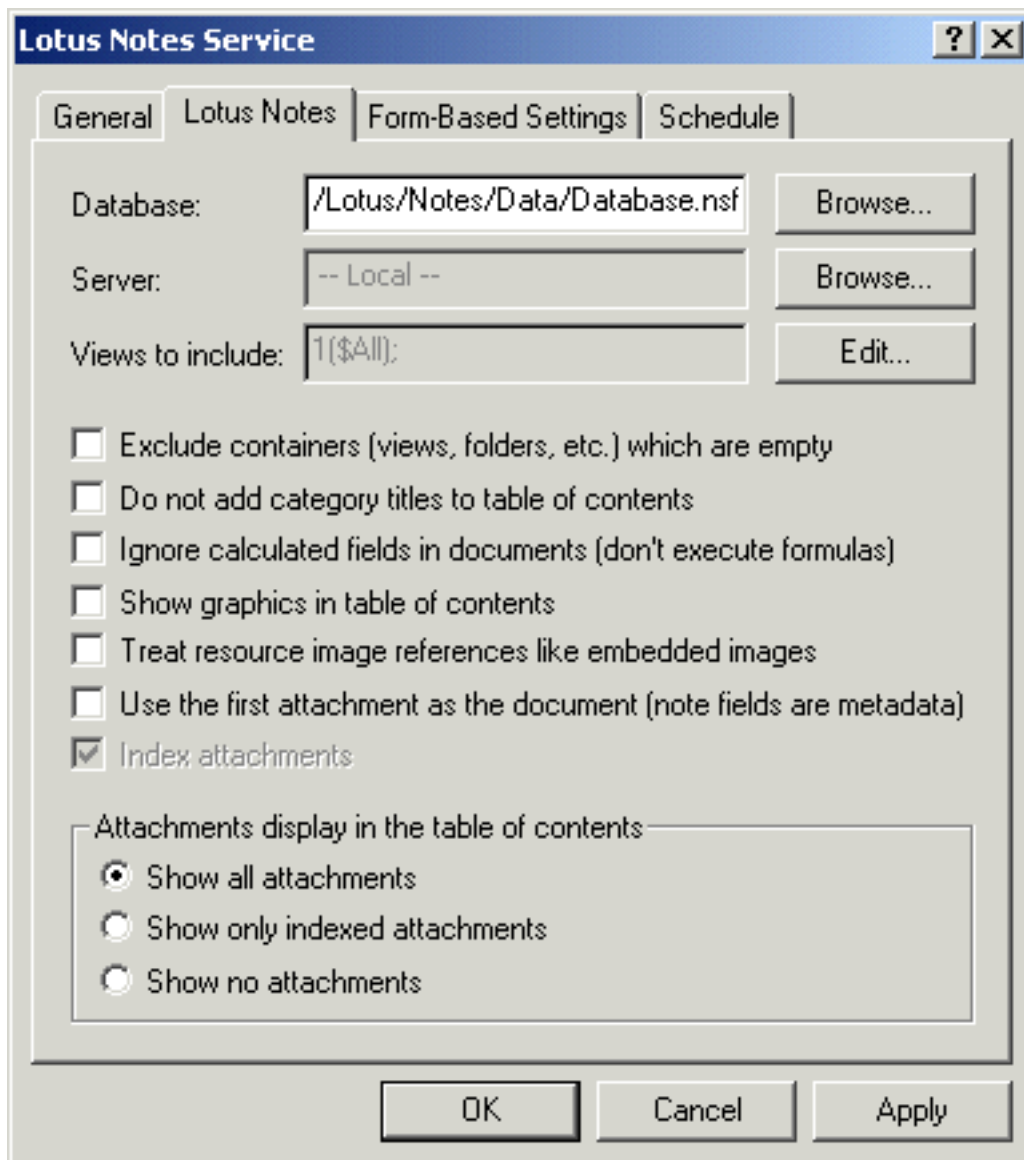# Lotus Notes Content Adapter Screenshots

Screenshots are Help topics that contain screen captures of dialog boxes found in Lotus Notes Content Adapter. Links to Screenshots are found at the beginning of most tasks as well as in steps that refer to dialog boxes.

Lotus Notes Content Adapter contains the following screenshots:

- Lotus Notes Service Properties, Lotus Notes Tab
- Lotus Notes Service Properties, Forms Tab

Lotus Notes Service Properties, Lotus Notes Tab Screenshot

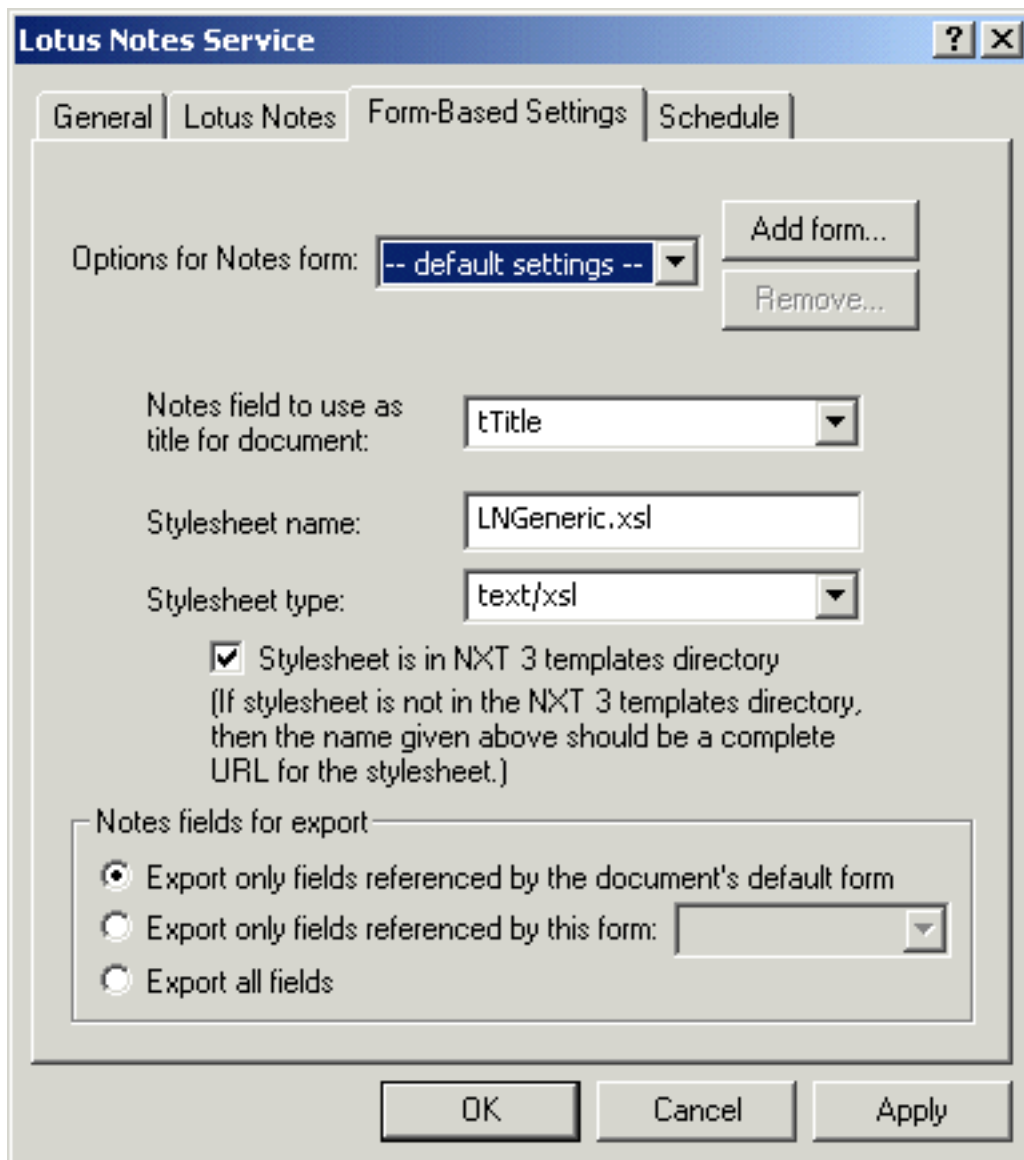Move your mouse over the screenshot to learn more about each field.

See Also

Lotus Notes Service Properties, Forms Tab Screenshot

Move your mouse over the screenshot to learn more about each field.

See Also

[Lotus Notes Service Properties, Lotus Notes Tab Screenshot](#)