

IBM Content Manager OnDemand Report Definition Made Easy

Introduction

IBM® Content Manager OnDemand is an automated archival and retrieval system that stores printed output such as reports, statements, invoices, and image documents. The printed output is processed and stored on various types of storage media including hard disks, network drives, optical platters, and tapes. Index values are extracted from the printed output and stored in a relational database, such as DB2® Universal Database™. After the printed output and index values are stored, you can use any of the Content Manager OnDemand client programs to query and retrieve documents.

Content Manager OnDemand provides a Windows-based administrative client that performs system administrative tasks such as defining users and reports to the Content Manager OnDemand system. This document explains how to define reports to Content Manager OnDemand using the Report Wizard function of the OnDemand Administrator client.

What is a report?

A report is the data that is being stored in Content Manager OnDemand. Report data for a particular report can consist of statements, invoices, monthly reports, and so on. To index, store, and retrieve the report data, you must provide information to Content Manager OnDemand that describes what the data looks like, how long to keep the data, and how to query the data after the data has been loaded. You do this by defining an application, application group, and folder, as shown in Figure 1.

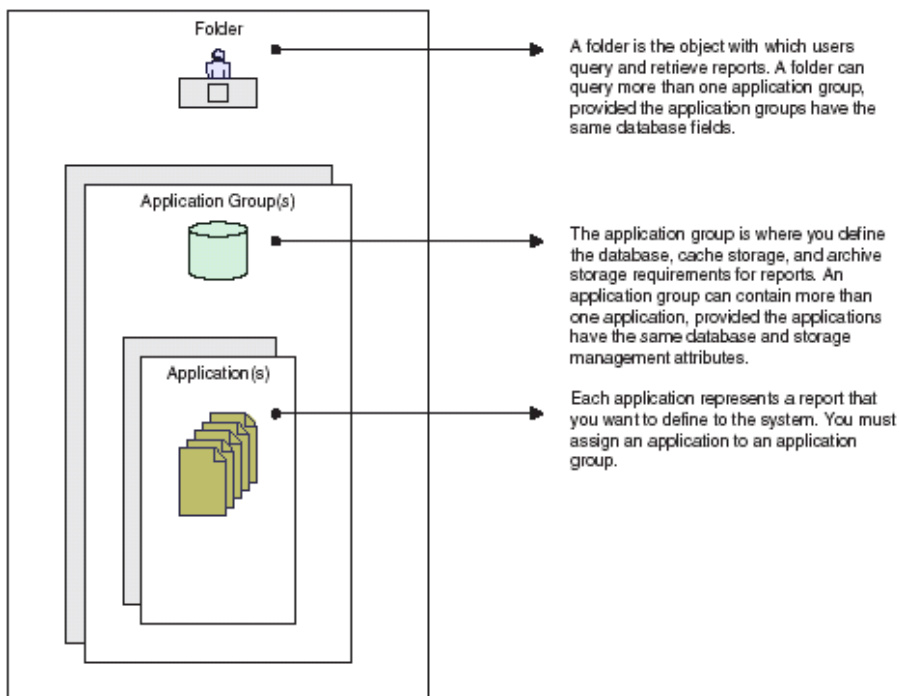


Figure 1. Defining report data to Content Manager OnDemand

There are two ways to define a report to Content Manager OnDemand:

- Add an application group, application, and folder
- Use the Report Wizard

Although the Report Wizard function is not new to Content Manager OnDemand, you may not know about it if you are new to Content Manager OnDemand or if you have not yet discovered the Report Wizard toolbar button on the main window of the OnDemand Administrator client. The purpose of this document is to describe how to use the Report Wizard so that you can quickly and easily define reports. If you have been defining reports without using the Report Wizard and have wondered if there was an easier way, you will want to read this document for the answer.

Defining the report

The Report Wizard defines a report to Content Manager OnDemand by combining the tasks of adding an application group, an application, and a folder into one task. Information for the application, application group, and folder is gathered by answering a series of questions and by using the graphical indexer to define the indexing parameters, the database fields, and the folder fields. Start the Report Wizard by clicking the **Report Wizard** toolbar button located on the main window of the OnDemand Administrator client, as shown in Figure 2.

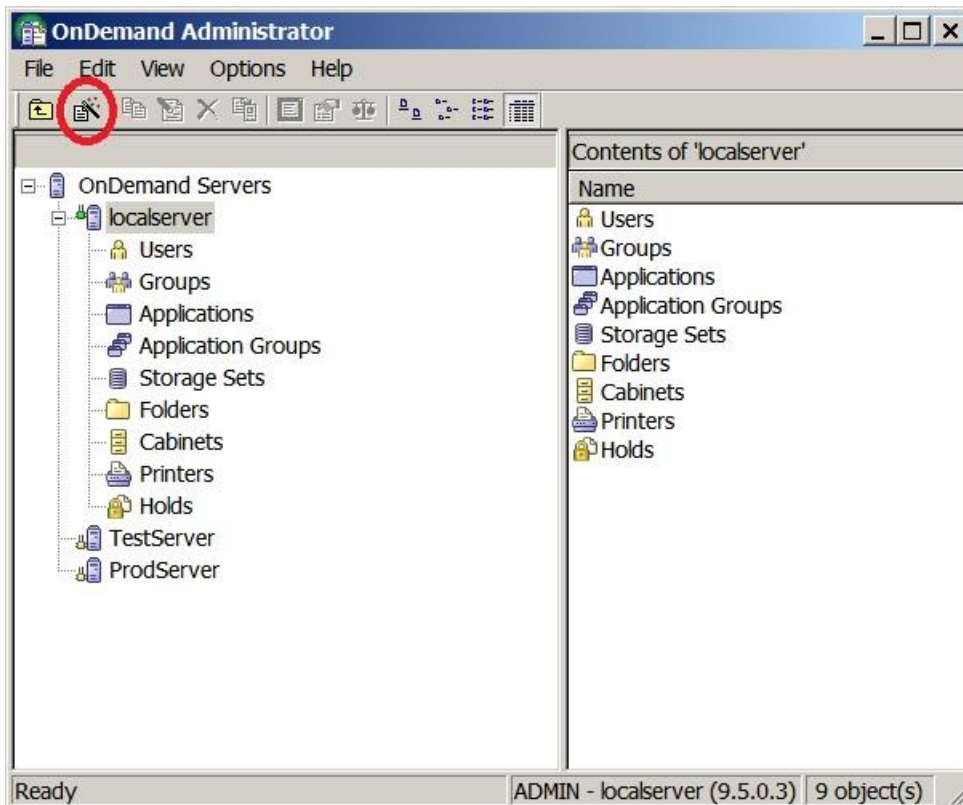


Figure 2. Location of the Report Wizard toolbar button

Now that you know how to start the Report Wizard, let's step through the process of defining a report:

1. Click the **Report Wizard** toolbar button to bring up the first page of the wizard, as shown in Figure 3. From the available choices, identify the indexer and the type of data you will be loading into Content Manager OnDemand. If you select **Generic** or **XML** as the indexer, sample data will not be used to define the fields. See [Selecting the Generic or XML indexer](#) section for more information.

If you are logged on to a Content Manager OnDemand for Multiplatforms or z/OS server and you select **AFP** for the data type, this indicates that the report data is line data but you want it to be converted to AFP before it is loaded into Content Manager OnDemand. If the report data is already AFP, the Report Wizard cannot be used to define the report to Content Manager OnDemand.

If you are logged on to an IBM i server and you select **AFP** for the data type, this indicates that the report data is AFP data. In this case, the Report Wizard *can* be used to define the report. The AFP sample data is converted to line data before being transferred to your workstation so that indexing parameters can be defined using the graphical indexer.

Note: SCS and SCS-Extended data types should not be selected when logged on to a Content Manager OnDemand for Multiplatforms or z/OS server unless the data is being indexed and loaded from an IBM i server to a Multiplatforms or z/OS server.

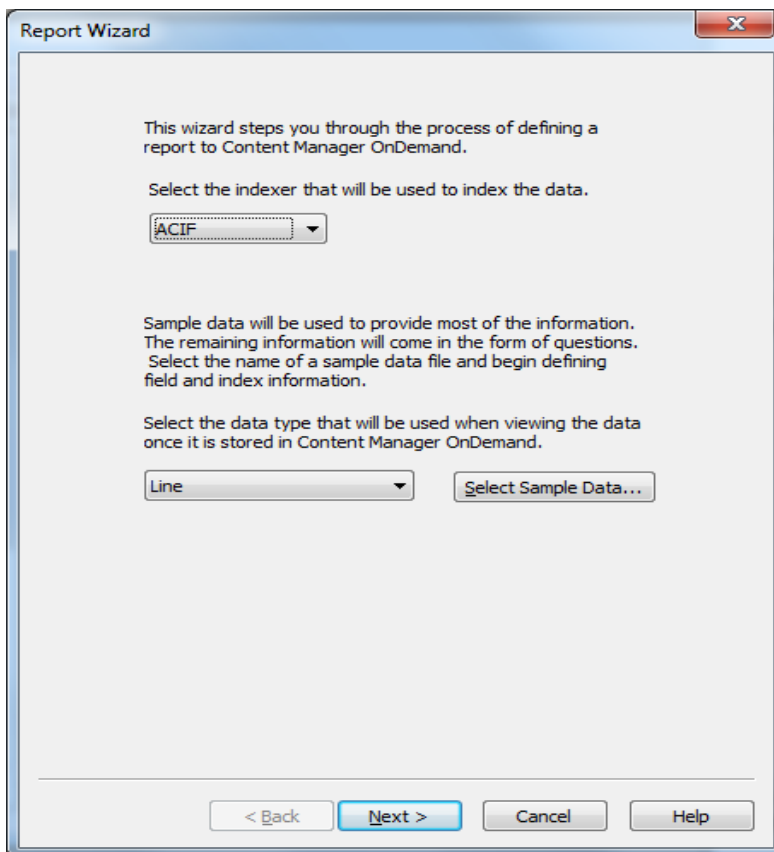


Figure 3. Identifying the indexer and data type in the Report Wizard

- After you choose the data type, click **Select Sample Data...** to select and open a file that contains a sample of the data you are going to load. The sample file should either be the actual input file you are going to load, or the first few pages from the input file so that the locations of the index values can be determined correctly. For data types other than PDF, you will see the sample data using a line data viewer. The indexer parameters will be written using the ACIF parameter syntax. For PDF data, you will see the sample data using Adobe Acrobat which must be installed on your workstation. (Note that Adobe Reader does not provide the required support for this function.) The indexer parameters will be generated using the PDF indexer syntax.

If you are logged on to a Content Manager OnDemand for Multiplatforms or z/OS server, the **Open dialog box is displayed, similar to the one shown in Figure 4.**

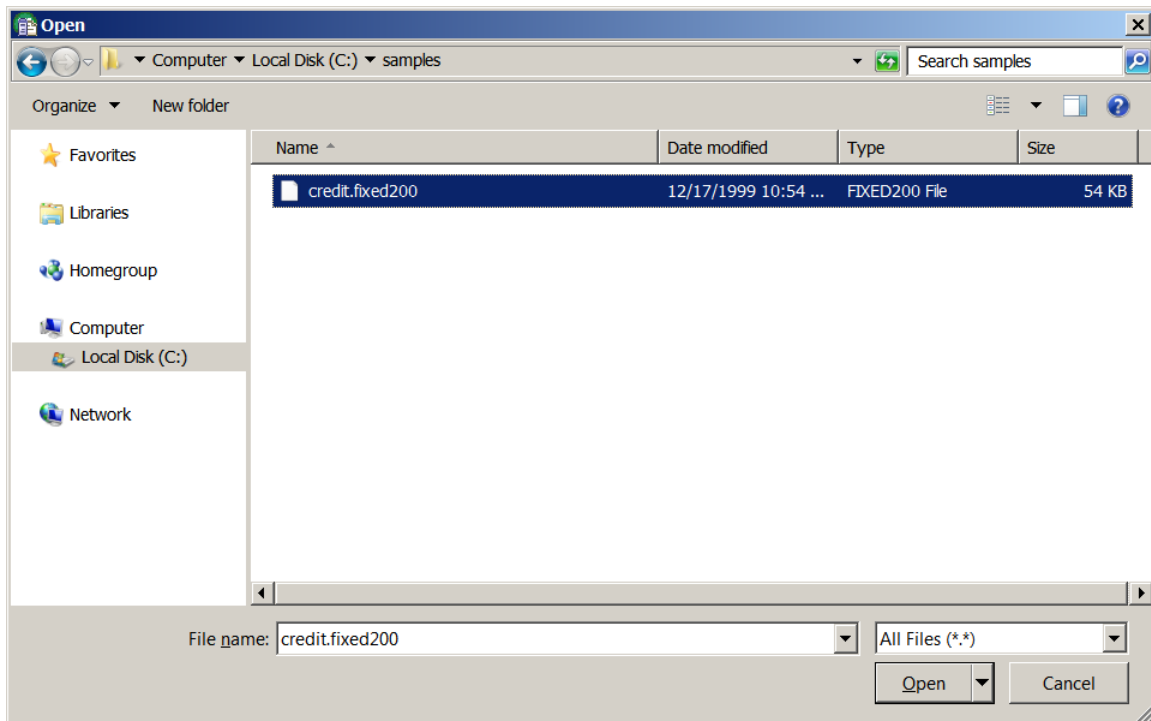


Figure 4. Open file dialog box

Choose a file and click **Open**, which brings up the **Indexer Properties** dialog. The dialog box contains settings for the physical characteristics of the data such as carriage control, record format, and record length. Other tabs on the dialog box allow you to set other indexer parameters such as AFP resource information, user exits, and index file characteristics. At the bottom of the **Data Format** tab, you can select how many pages of the file will be viewed in the graphical indexer. If the file is very large, you'll want to limit the number of pages so that opening and viewing the file can be done quickly and efficiently. Make any changes necessary and click **OK** to display the sample data in the graphical indexer.

If you are logged on to an IBM i server, the **Select File dialog box is displayed, similar to the one shown in Figure 5. The **Select File** dialog box allows you to search for files on the IBM i server, transfer one of the files to the workstation, and then open the file.**

Most often, you will use the **Select File** dialog box to choose a spooled file from an output queue. You can search for files either by the user that created the file (see Figure 5) or by the

output queue where the file is located. Enter the user name or output queue name to locate the file and then click the **Retrieve List** button to display the list of files to select. Select the file you want to transfer to your workstation, then click **OK**. Click **Save** on the **Save As** dialog box to save the sample file to your workstation and to display the sample data in the graphical indexer.

If you have already transferred a file to your workstation or the sample file was transferred to your workstation using another method, you can select the **PC File** option on the **Select File** dialog box to skip the file transfer step and go directly to opening a file on your workstation. The **Open** dialog box will be displayed so that you can identify which workstation file to display in the graphical indexer. Click **Open** to display the sample data in the graphical indexer.

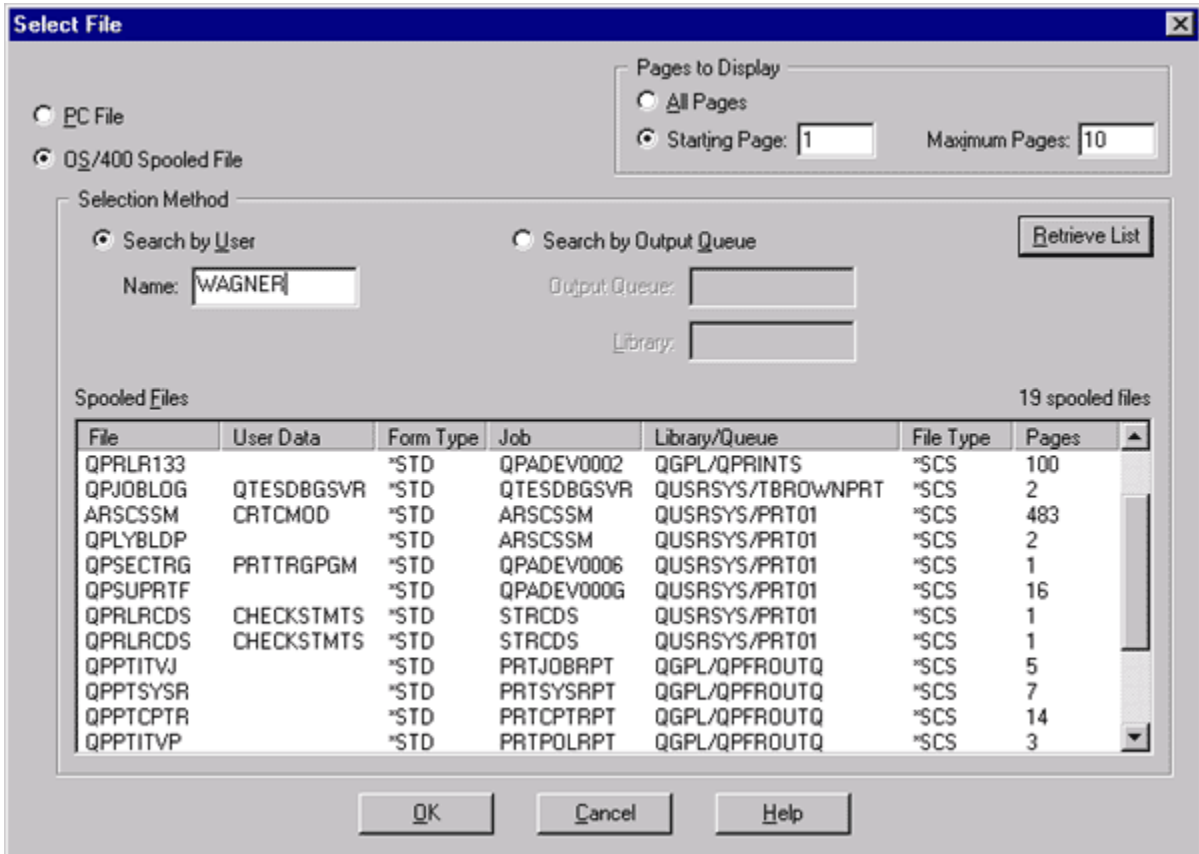


Figure 5. Select File dialog

3. The graphical indexer enables you to identify one or more places in the document where index data is located so that it can be extracted and saved in the database. The indexing parameters that are used to define the index values are the TRIGGER, FIELD, and INDEX parameters:
 - One or more TRIGGER parameters are used to uniquely identify the start of each document within the report data.
 - The FIELD parameter contains the location information where the index value can be extracted from the data.
 - The INDEX parameter identifies which database field should receive the index value that was identified by the FIELD parameter.

Normally, when a FIELD parameter is added using the graphical indexer, only the FIELD parameter is added. However, when a FIELD parameter is added from within the Report Wizard,

the **Add a Field** dialog box is extended so that an application group database field and folder field can be defined at the same time. In addition, an INDEX parameter is automatically generated for the FIELD parameter. Figure 6 is an example of the **Add a Field** dialog box that is used with the Report Wizard.

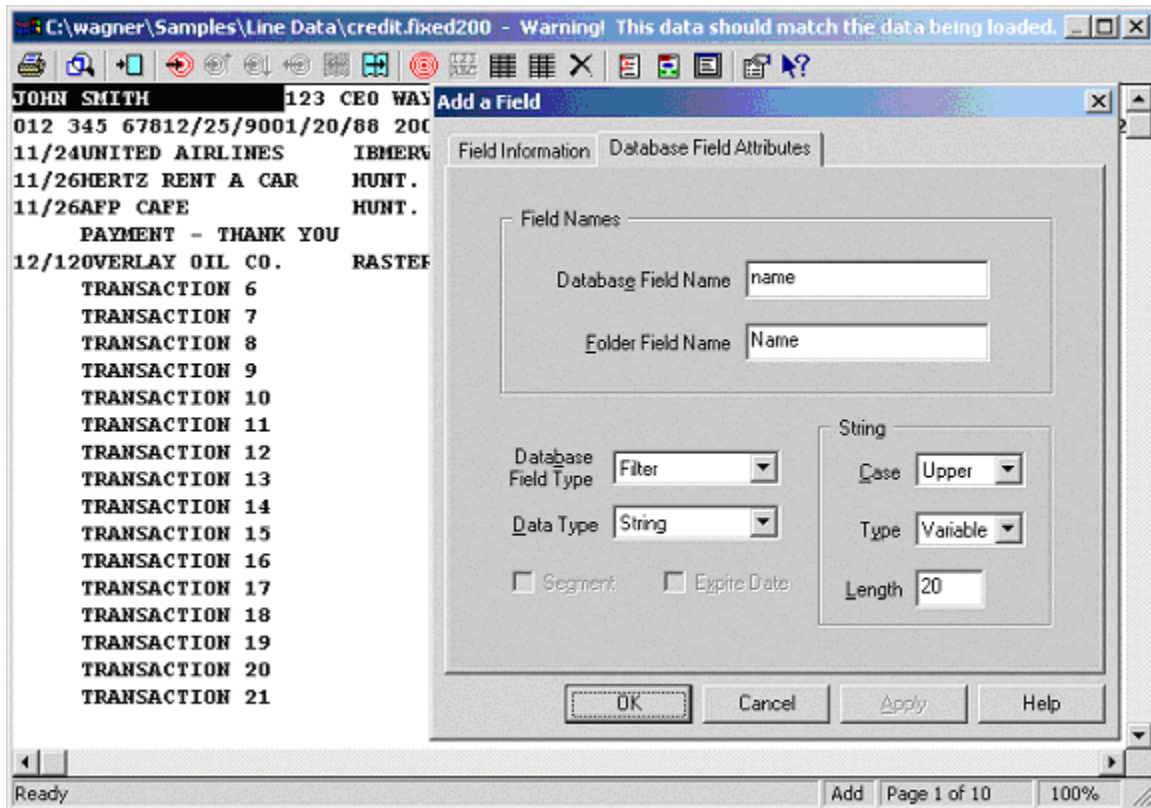


Figure 6. Add a Field dialog box

In the example shown in Figure 6, the name "John Smith" and several blank spaces have been selected. The location and offset information is automatically calculated from the selected text and appears in the **Field Information** tab. The number of characters that have been selected, including the blank spaces, is displayed in the **Length** field on the **Database Field Attributes** tab.

4. Enter the database field name, folder field name, and field characteristics, then click **OK**, then close the sample data window and save the changes.

Tip: When you are adding the FIELD parameters, be aware that the order in which you define the fields is the order used for queries and for hit lists for the folder fields. Later, if you decide you want to change the order, you can always go back and update the folder and change the hit list or query order of the fields.

5. Click **Next** to go to the next page of the Report Wizard as shown in Figure 7. You will need to answer two questions:
 - o **Is Large Object support required?** Your answer determines whether the data will be divided and stored as separate objects. Select **Yes** when you have a report that contains thousands of pages of data that logically belong together as one group but must be

- divided into segments so that the report can be retrieved more quickly, one segment at a time.
- **Do you want to keep the location of annotations in the document database table?**
Your answer determines whether a column will be added to the database to indicate whether the document has annotations.

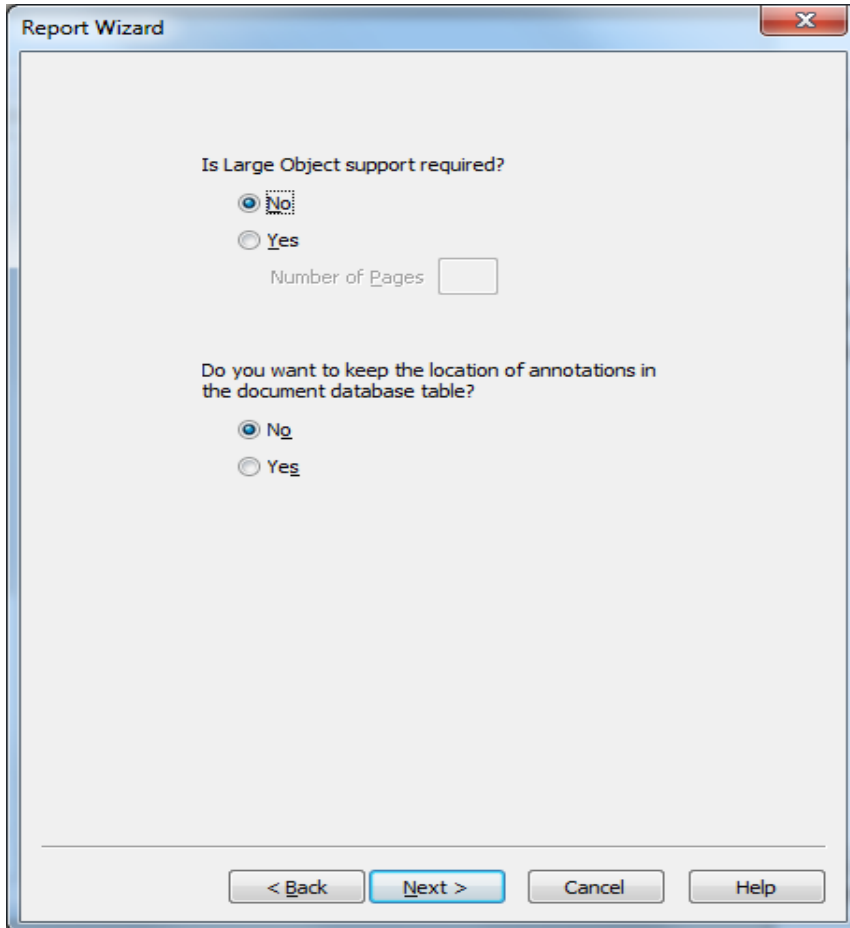


Figure 7. Large Object page of the Report Wizard dialog

6. After you answer these two questions, click **Next**. On the resulting page (Figure 8), identify which storage set will be used to load the data and how the data will be expired.

Choose the storage set based on how long you need to retain the report. For example, you might need to store some reports for seven years and other reports for 180 days. Two storage sets would be defined by the Content Manager OnDemand system administrator to support each of the required retention periods. Select the storage set with the retention period that is required for this report.

You can choose to have data expiration determined by load, by segment, by document, or by storage manager (z/OS only):

- **By Load:** All of the documents that were loaded together from one input file are deleted. Content Manager OnDemand can derive the expiration date from either the date the input file was loaded or a date found within the input file.

- **By Segment:** All of the documents with indexes in a database table are deleted. The deletion occurs only after the table is closed (that is, no more entries are added to the table). Expiration of the data is determined from the latest date in the table for the segment date database field.
- **By Document:** Documents are deleted individually. The deletion is based on the date that is specified by the Expire date database field.
- **By Storage Manager:** On z/OS servers, the storage manager (OAM or VSAM) determines when data is deleted from the system.

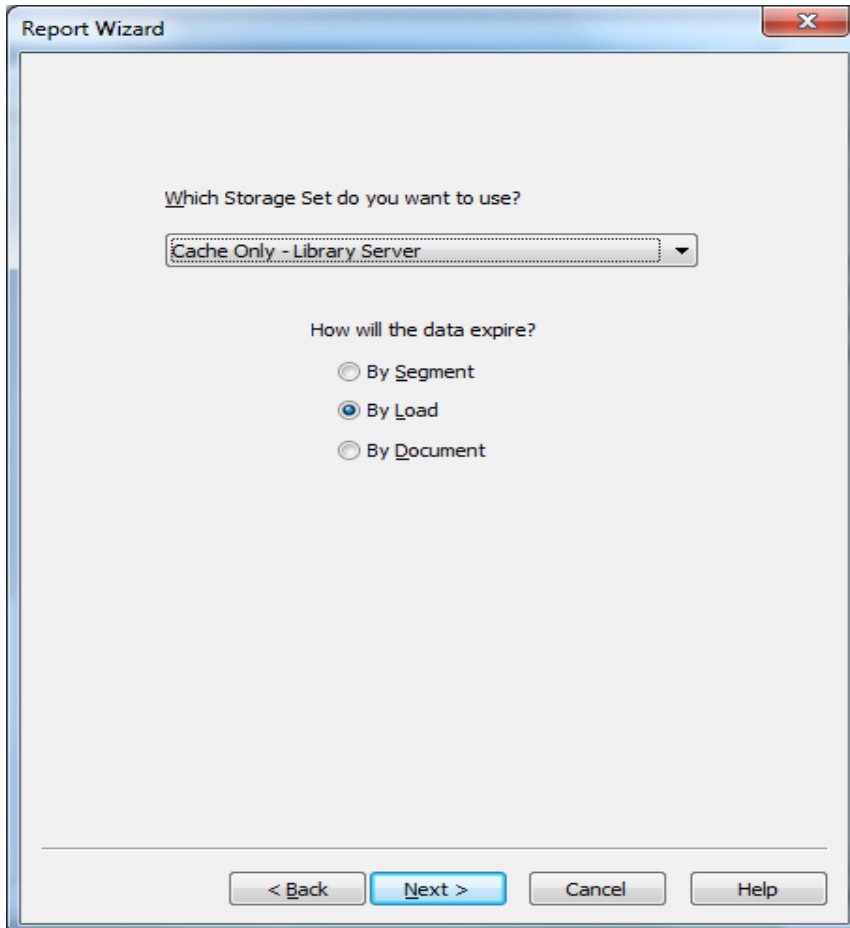


Figure 8. Storage set page of the Report Wizard dialog

7. After you make your selections, click **Next**, which brings up the page shown in Figure 9. This page gives you the option to configure the application group to work with the Enhanced Retention Management and IBM Enterprise Records features. If you are not familiar with these features, review the topics "Implementing your enhanced retention management system" and "Configure Content Manager OnDemand to work with IBM Enterprise Records" in the *Enhanced Retention Management Guide*.

If you select **Yes** to use Enhanced Retention Management, enter the name of a folder field that will be used to contain a list of holds. A database field called "doc_hold" is automatically created which contains the number of holds placed on a document. When a hold is placed on a document, the value is incremented by 1; when a hold is released from the document, the value is decremented by 1.

If you select **Yes** to Use Content Federation Services (CFS-CMOD), a database field called “cfs_cmod” is automatically created. This field is used to indicate if FileNet P8 applied a lock to a document. If a lock has been applied, client applications display a lock icon next to the document in the hit list. You can choose to federate documents automatically as well as enabling Enterprise Records to declare records automatically.

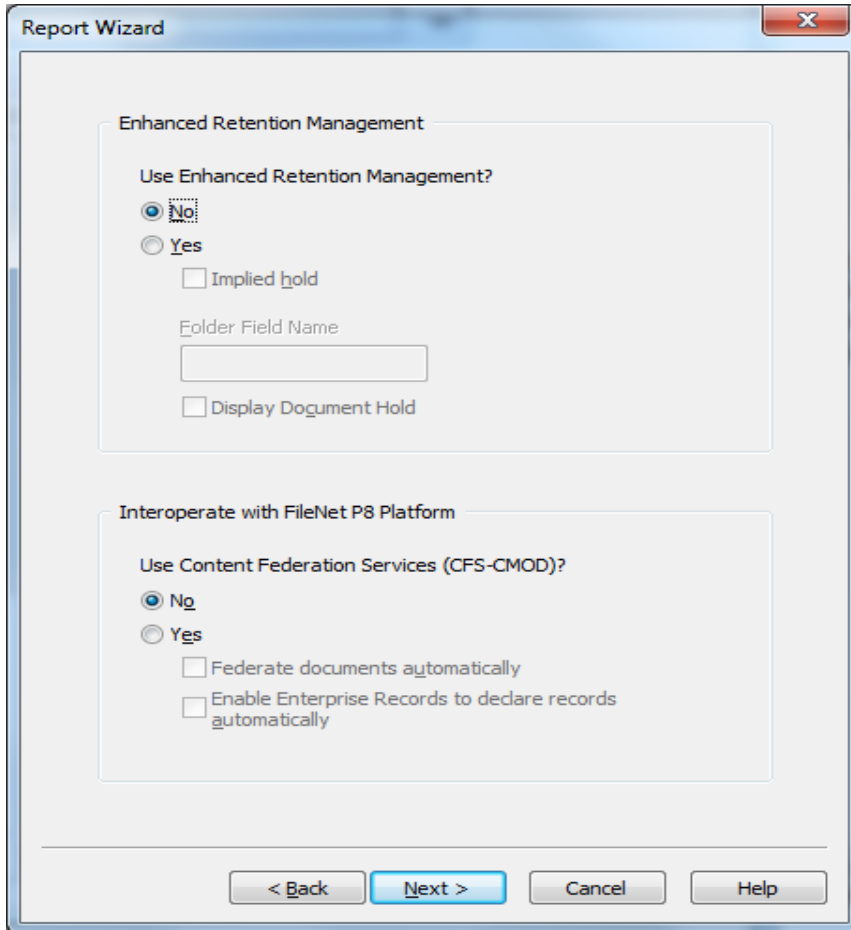


Figure 9. Enhanced Retention Management page of the Report Wizard dialog

8. After you make your selections, click **Next**, which brings up the page shown in Figure 10. You have the option to configure the application group to work with the Full Text Index feature.

If you select **Yes** to Use Full Text Index, enter the Full Text Search (FTS) server information. The server name must include the port number, for example, **myserver.info.com,1400**

If you are going to use Full Text Index, you need to add a Full Text Index Search field so that end users can specify the full text search criteria. You can optionally add the following:

- Full Text Index Score field - contains the score of the hit, relative to the other matching hits
- Full Text Index Highlight field - contains the text surrounding the matching text to provide the context in which the text was found
- Full Text Index Summary field - contains the first 80 characters of the document

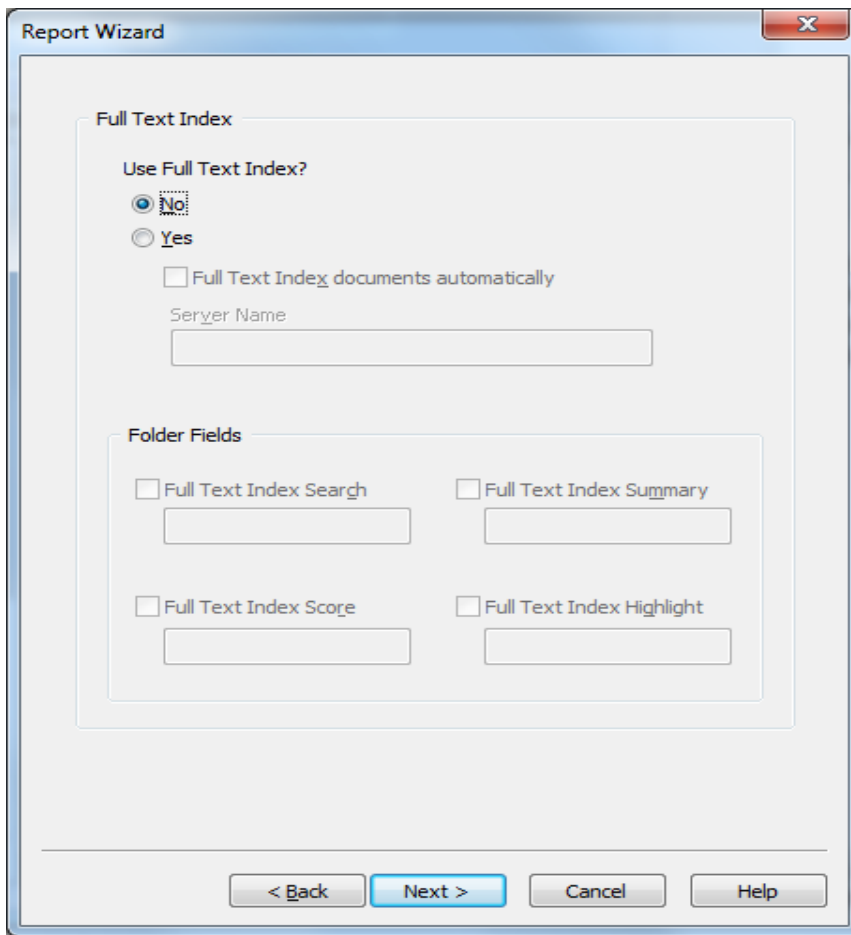


Figure 10. Full Text Index page of the Report Wizard dialog

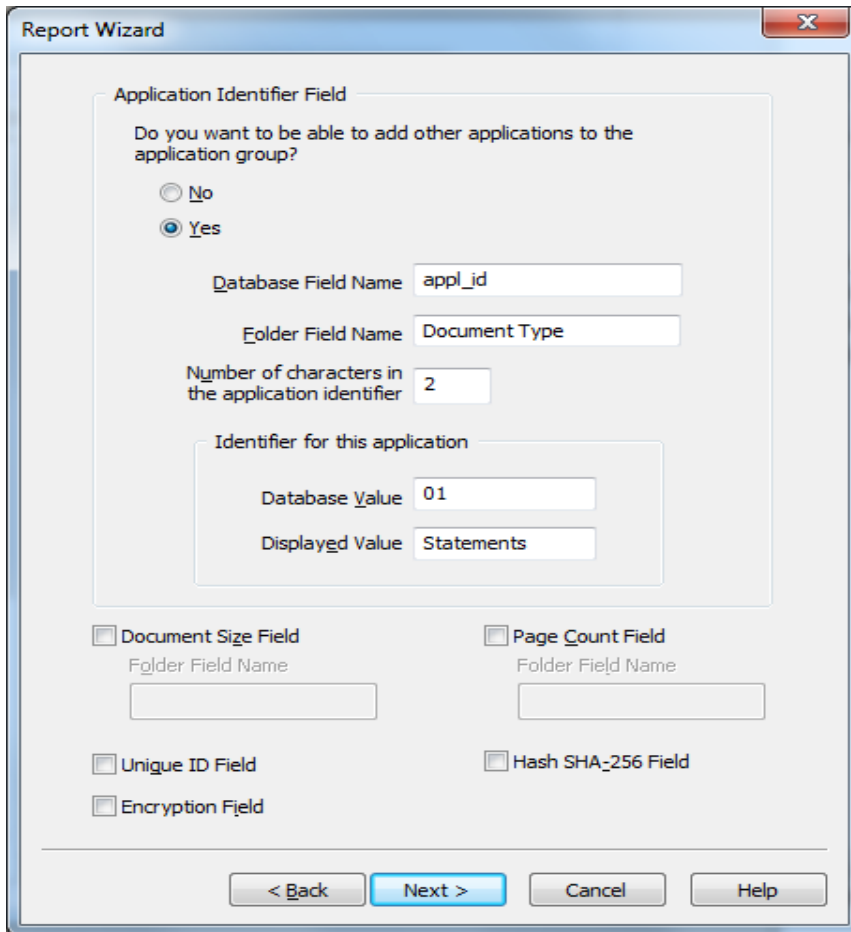
9. After you make your selections, click **Next**, which brings up the page shown in Figure 11. This page lets you set up the application group so that multiple applications can be added to the application group you are creating with the Report Wizard. The first application is added to the application group by the Report Wizard. You can add additional applications later by either using the "add" function of the OnDemand Administrator client or by using the Report Wizard to add another application to the application group. Instructions for adding an application to an existing application group using the Report Wizard are found in the [Adding an application to an existing application group](#) section of this document.

If you know that more than one application will be needed for this application group, select the **Yes** radio button and fill in the remaining information on the page to define a database field and a folder field to be used for the application identifier field. You will also need to provide an application identifier value for this application. The identifier is included in the database row for each document that is loaded into Content Manager OnDemand for the report and is used to identify the documents that belong to the application.

Additional options on this page include adding a document size field, a page count field, a unique ID field, a hash SHA-256 field, and an encryption field. The document size field contains the size of the document in bytes. The page count field contains the number of pages in a document. The unique ID field contains a 36-byte unique identification string for every row in the database. The hash SHA-256 field contains a 64-byte identification string for every

document in the database. The encryption field is an internal field that is used as part of the encryption process to encrypt documents.

Tip: Because the application identifier is added to every row, it is important to consider the number of characters used for the identifier to minimize the amount of space required in the database.



The screenshot shows the 'Application Identifier Field' page of the Report Wizard dialog. The dialog has a title bar with 'Report Wizard' and a close button. The main content area is titled 'Application Identifier Field' and contains the following elements:

- A question: 'Do you want to be able to add other applications to the application group?' with two radio buttons: 'No' (unselected) and 'Yes' (selected).
- A text box for 'Database Field Name' containing 'appl_id'.
- A text box for 'Folder Field Name' containing 'Document Type'.
- A text box for 'Number of characters in the application identifier' containing '2'.
- A sub-section titled 'Identifier for this application' containing:
 - A text box for 'Database Value' containing '01'.
 - A text box for 'Displayed Value' containing 'Statements'.
- Four unchecked checkboxes: 'Document Size Field', 'Page Count Field', 'Unique ID Field', and 'Hash SHA_256 Field'. Each checkbox has a 'Folder Field Name' text box below it.
- An unchecked checkbox for 'Encryption Field'.
- At the bottom, four buttons: '< Back' (disabled), 'Next >' (highlighted in blue), 'Cancel', and 'Help'.

Figure 11. Application Identifier page of the Report Wizard dialog

10. Click **Next** to continue to the page shown in Figure 12, where you name the application, application group, and folder. As you begin typing the name of the application, the same name is added for you for both the application group and folder. If you want to use different names for the application group and folder, you can change the names that were automatically added, or before entering the application name, uncheck the check boxes that indicate the same names will be used. You can also choose to provide descriptive information about the report you are creating. The same description will be used for the application, application group, and folder.

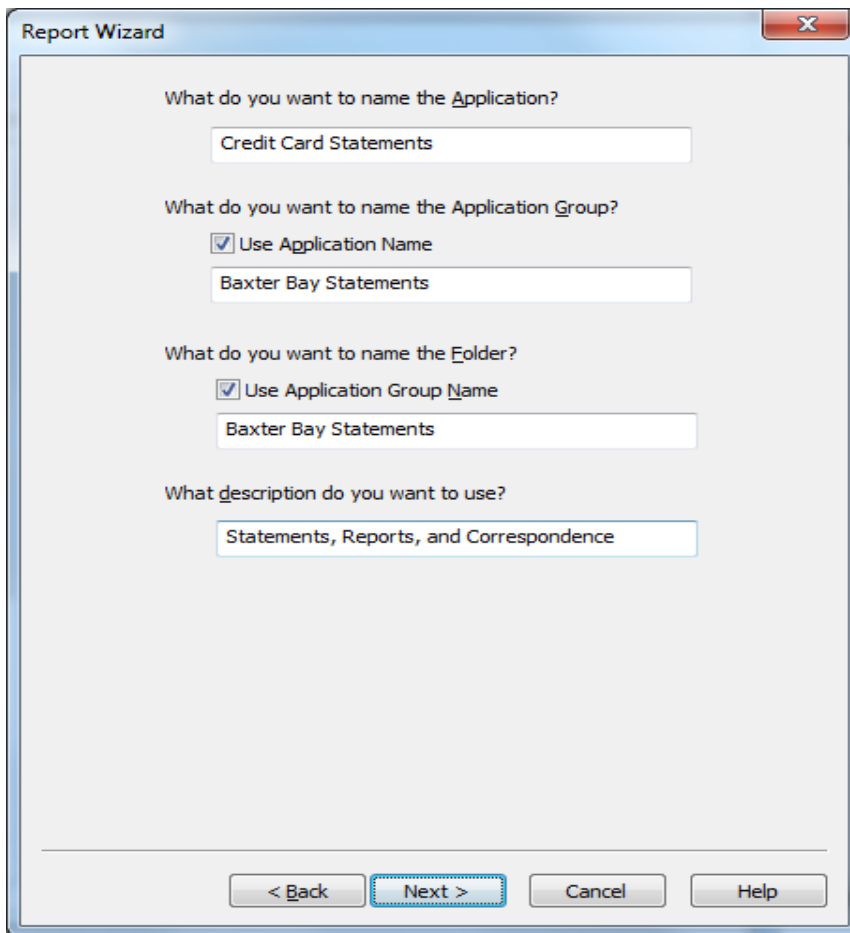


Figure 12. Names page of the Report Wizard dialog

11. Click **Next** to continue to the next page, which is the last page of the Report Wizard shown in Figure 13. From here you can choose to view a report that shows all of the parameter values for the application, application group, and folder you have created. If you see something you want to change, simply click **Back** through the Report Wizard and make the change. You can even go back to the very beginning and start all over again or change any values you have defined using the graphical indexer.

12. When you are satisfied with the values, click **Finish**. With one click of the Finish button, you have just added an application, application group, and folder!

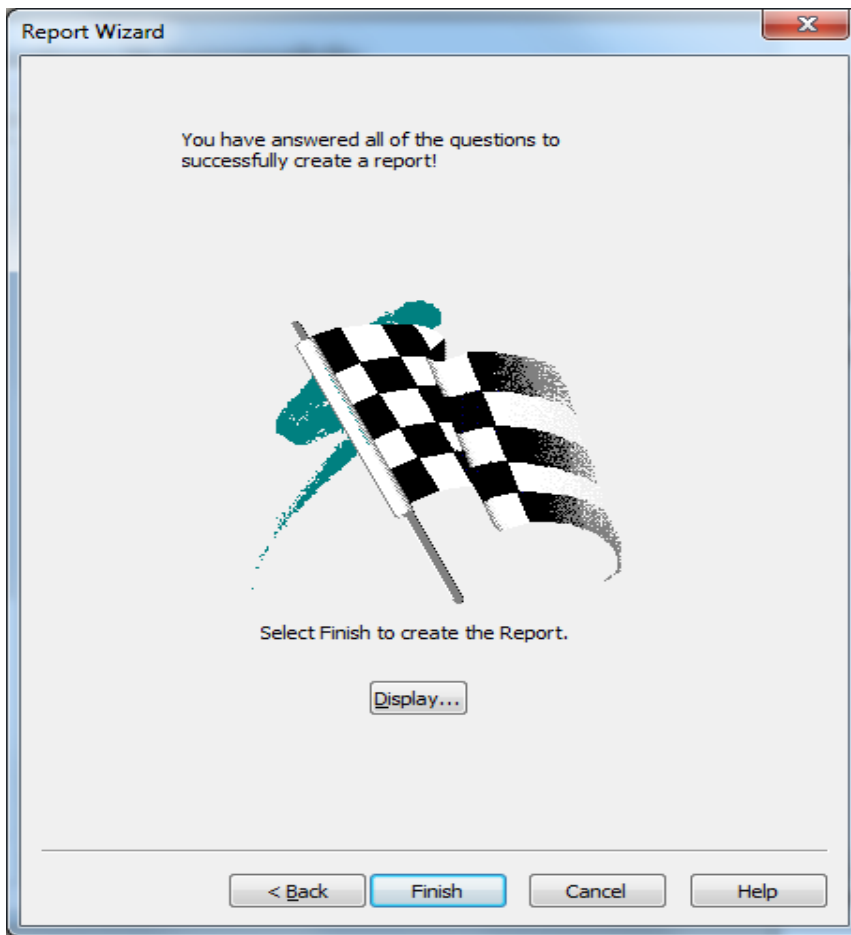


Figure 13. Finish page of the Report Wizard dialog

Adding an application to an existing application group

You can use the Report Wizard to add an application to an existing application group. To add multiple applications to an application group, an application identifier database field must be present in the application group, and there must be an available application identifier for the new application. If the application group was originally added using the Report Wizard, update the application group so that additional application identifiers can be added for each new application.

Adding an application by using the Report Wizard is similar to defining a report, with a few exceptions.

1. Before invoking the Report Wizard, make sure that the right pane of the OnDemand Administrator client contains a list of application groups, and that you have selected the application group to which the application is being added (Figure 14).

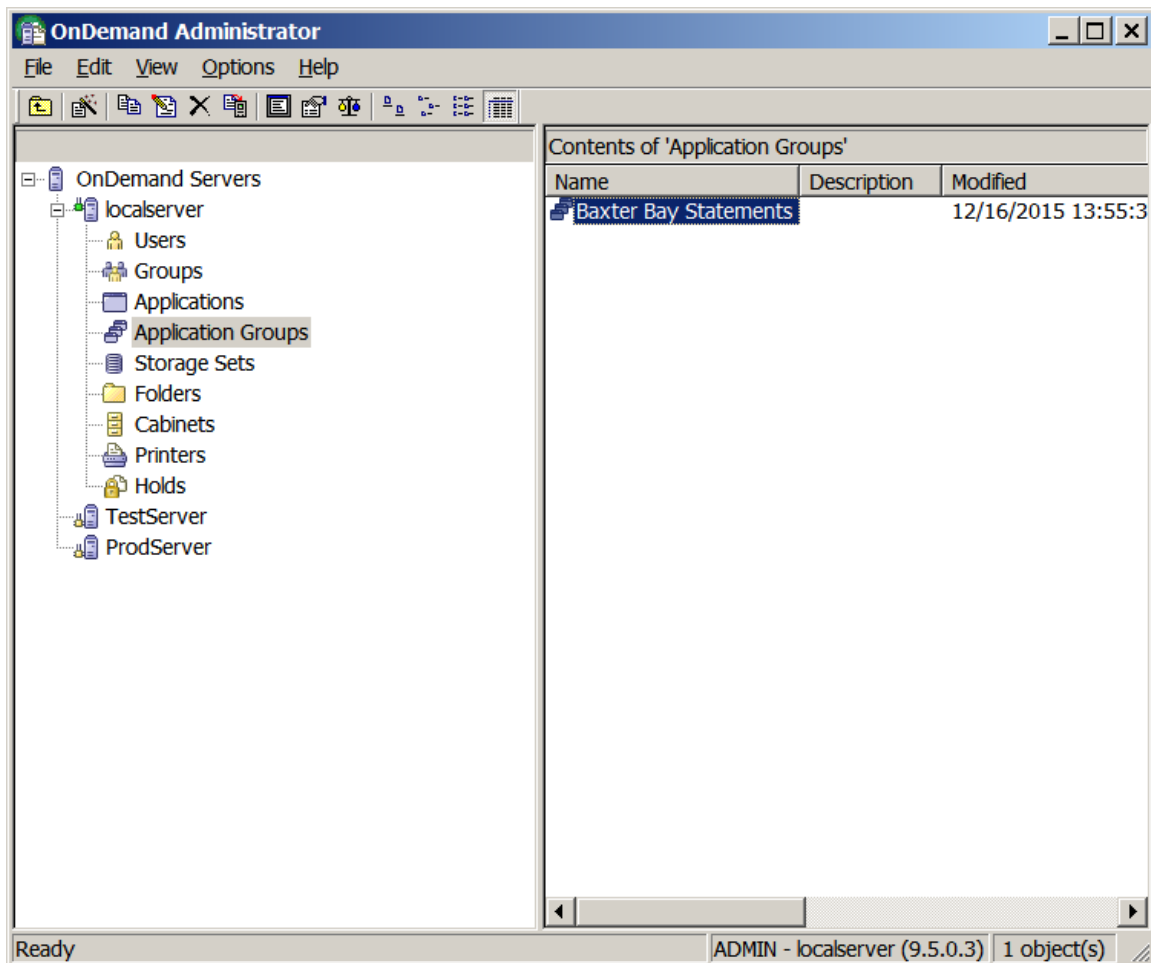


Figure 14. Selected application group where application will be added

2. Click the **Report Wizard** button to bring up the wizard.
3. Select the indexer and data type for this application and then click **Sample Data...** to open a sample data file and to display the file using the graphical indexer. Because you are only adding an application, the graphical indexer is used only to define the indexer parameters, not the application group database fields and folder fields. For this reason, the **Database Field Attributes** page of the **Add a Field** dialog box is not used when an index field is added.

Note: If you selected Generic or XML as the indexer, indexer parameters are not defined so the graphical indexer and sample data is not used. See [Selecting the Generic or XML indexer](#) section for more information.

4. Define the indexer parameters, then close the sample data window and save the changes.
5. Click **Next**. On this page, indicate whether you need large object support.
6. Click **Next** to bring up the page shown in Figure 15. Here, choose the application name, description and the application identifier.

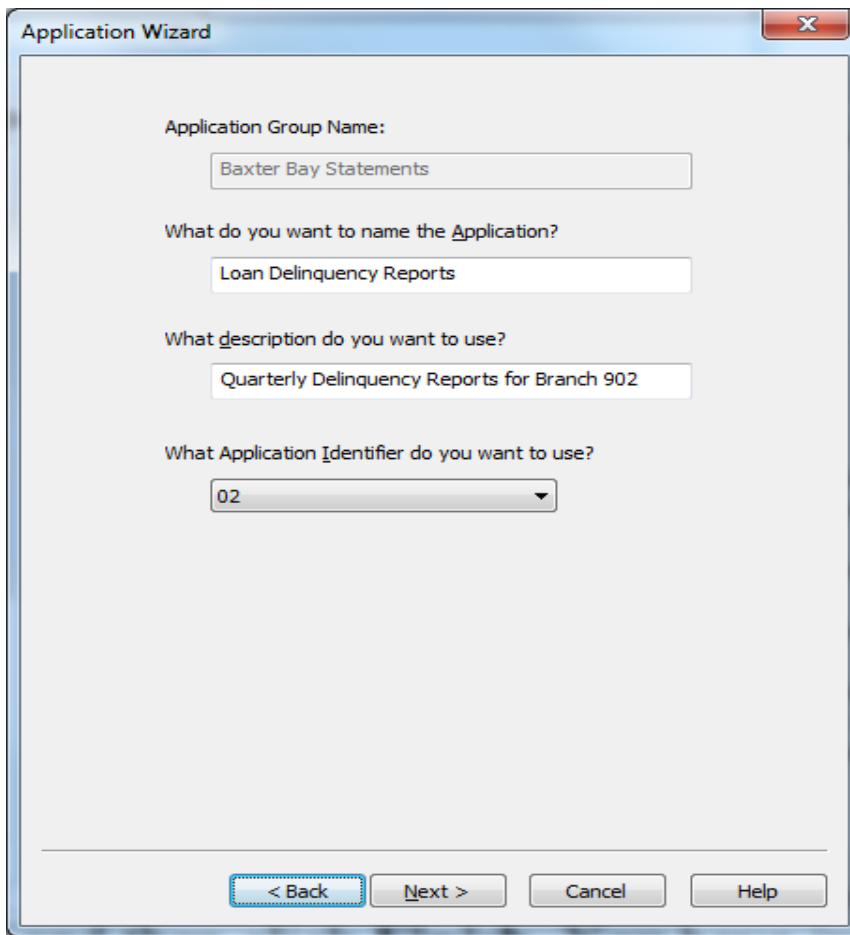


Figure 15. Application name page

7. Click **Next** to reach the last page and then click **Finish**. You have just added an application to an existing application group using the Report Wizard!

Note: If an application cannot be added to the application group that is selected, the Report Wizard will define a report to Content Manager OnDemand (application, application group, and folder) rather than just an application.

Selecting the Generic or XML indexer

You can use the Report Wizard to add an application that uses the Generic or XML indexer. Index data is not extracted from the document data so this means the graphical indexer is not used. Normally, if an application group and folder are also being added, the database fields and folder fields are defined at the same time the indexer parameters are defined when you use the graphical indexer. Since the graphical indexer is not being used, the **Select Sample Data...** option is not applicable. The database fields and folder fields are added later in the process.

When you select the Generic indexer, you can select any of the Content Manager OnDemand supported data types. If you select the XML indexer, only the XML data type is available for selection.

Adding an application that uses the Generic or XML indexer using the Report Wizard is similar to defining a report, with a few exceptions.

1. If Line, SCS, SCS-Extended, Global DJDE, or User Defined are selected, you will see a page that contains view information attributes. If you selected User Defined as the data type, the File Extension must be provided. For the other data types, you specify the code page, what type of carriage control is used (if any) and the record format of the data as shown in Figure 16.

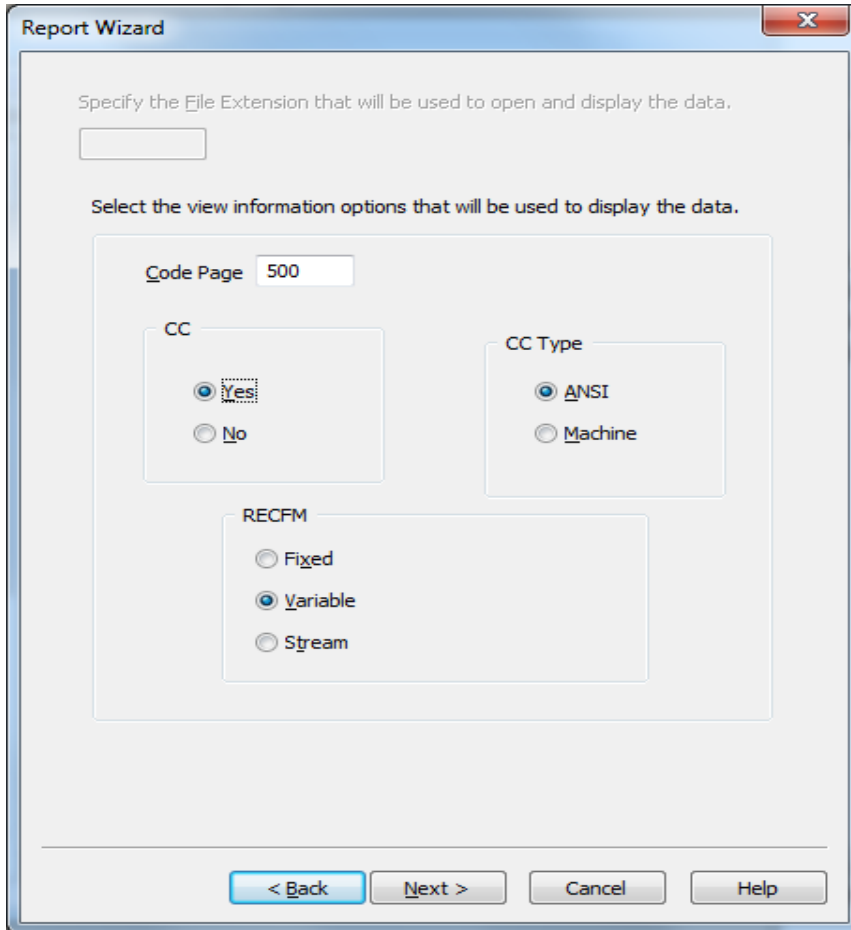


Figure 16. View Information page

2. If you are using the Report Wizard to also define the application group and folder, the next page you will see when you click the **Next** button will be the page where you define the database and folder fields (Figure 17).

If you are only adding an application to an existing application group, the page where you define the fields will not be displayed since the application group has already been defined.

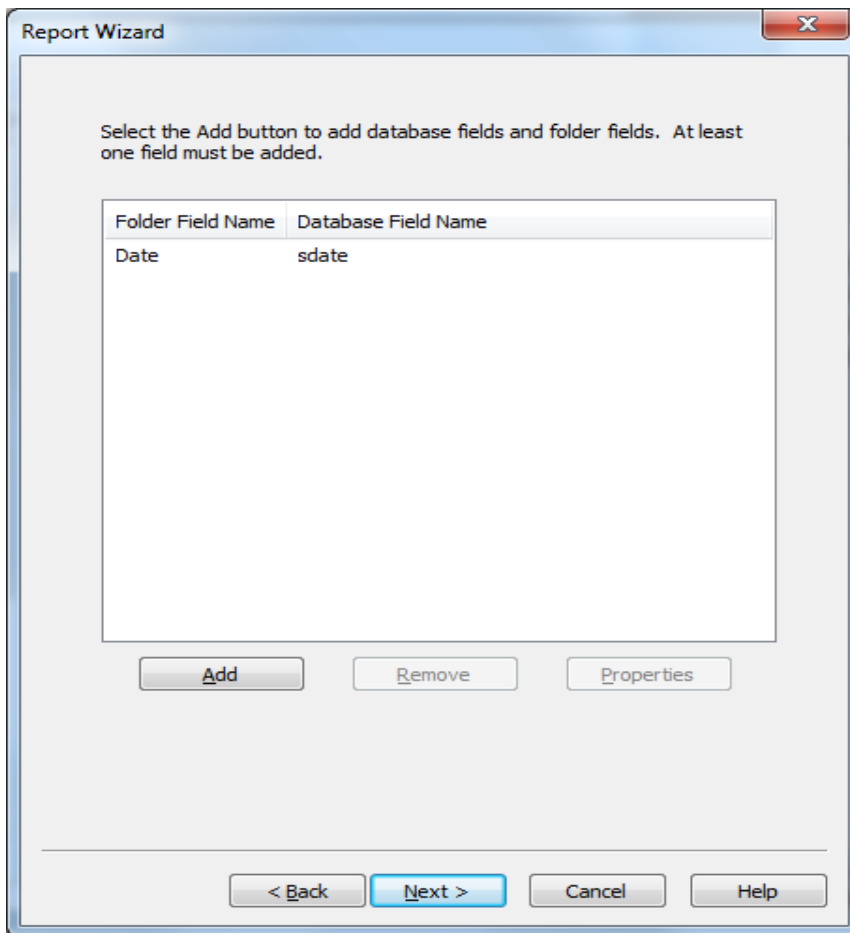


Figure 17. Database and folder fields page

3. Click **Add** to display the **Add a Field** dialog (Figure 18). On this dialog, provide the name of the database and folder fields, select attributes of the database field, and click **OK** to add the field. The database and folder field names will appear on the fields page after they have been added (Figure 17).

Continue adding fields until all of your required fields have been added. You can change or view the attributes of a field by selecting the field name in the list and clicking the **Properties** button. You can also remove a field by selecting the field name and clicking the **Remove** button.

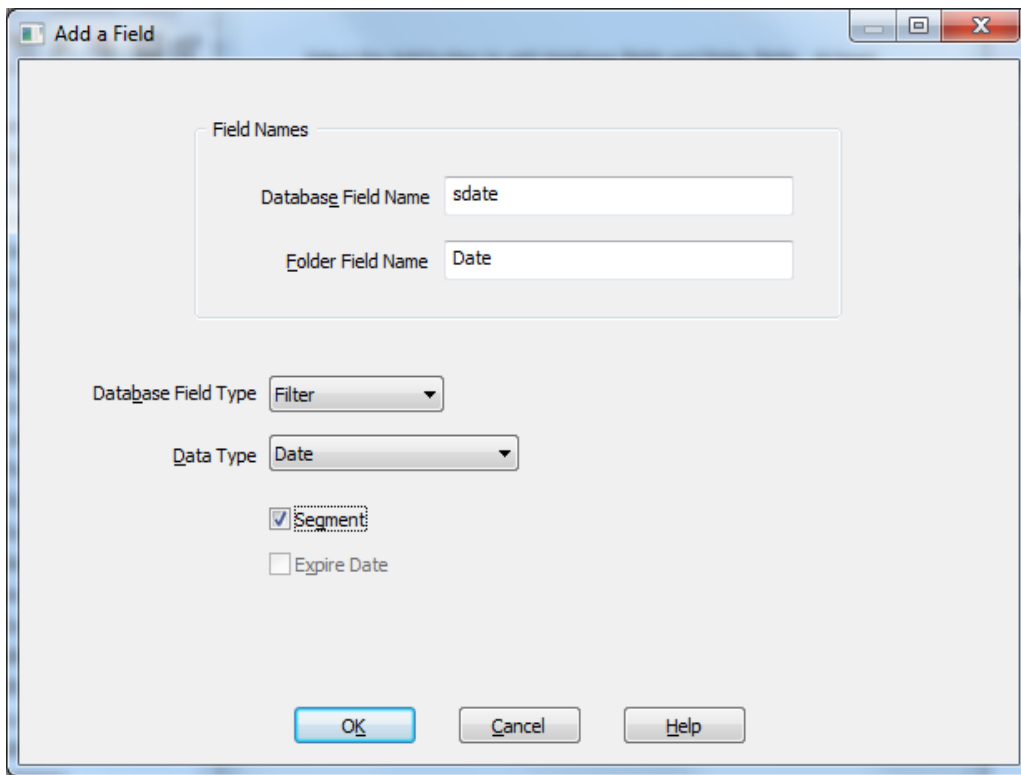


Figure 18. Add a Field dialog

4. Click **Next** to continue to the next page of the Report Wizard. The remaining steps are the same, regardless of the indexer selected.

Summary

As you have seen, defining a report to Content Manager OnDemand using the Report Wizard is as simple as answering a few questions and visually identifying the locations of the index values in the sample report data. The number of questions you must answer have been kept to a minimum and are related to the values that cannot be changed after the report has been defined. For any values that aren't assigned based on the answers to the questions or by using the graphical indexer, default values are used and can be changed later by updating the application, application group, or folder.