

Getting Started With MX Breadcrumbs

version 1.0





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1 Overview

In the **Getting Started with MX Breadcrumbs** tutorial, you will learn how to use **MX Breadcrumbs** for quickly inserting breadcrumbs in your site pages. Beginning with the files in your installation package, you will understand what **MX Breadcrumbs** is, how it works, and what you can do with it.

Although much of the tutorial and sample site were done in PHP, the ColdFusion and ASP steps are nearly identical. The primary difference is in the database configuration and connection sections, where separate instructions are provided.

2 About This Software

MX Breadcrumbs is a **Dreamweaver MX** extension that allows developers to create dynamic breadcrumbs in their web sites. It will actually create a *directory index* displaying the database information in an hierarchical manner.

This is a simple extension that includes a Command and an Advanced Breadcrumbs Recordset.

MX Breadcrumbs supports **PHP_ADODB**, **PHP_MySQL**, **ColdFusion** and **ASP_VBScript** server models. To keep up with the latest **MX Breadcrumbs** information, visit:

<http://www.interaktonline.com/Products/Free-Products/MXBreadcrumbs/>

3 What's Inside?

The installation kit includes a root folder and one sub folder. The root folder is where you will find the **MXBreadcrumbs-[version].mxd** file for installation. Also in the root folder is the Readme file, and a copy of the ownership license. Here is what the sub folders contain:

docs

This folder contains two sub folders with information on **MX Breadcrumbs** and how to use it. The folders and their contents are listed below:

Getting Started

This folder contains four versions of the **Getting Started with MX Breadcrumbs** tutorial. One for each supported server model: **PHP_ADODB**, **PHP_MySQL**, **ColdFusion** and **ASP_VBScript**. Each of the tutorial sub folders contains a site folder with sample website for each supported server model. The folder also includes a pdf tutorial and a database folder with files for creating and populating database tables (an sql and a mdb file).

User Manual

The User Manual folder contains a PDF **MX Breadcrumbs User Manual** with details about **MX Breadcrumbs** and how it works. This file is the best source for technical information.

4 Installing Product

The installation procedure for **MX Breadcrumbs** is very simple.

1. In your installation kit, first open the **MX Breadcrumbs** folder.
2. Once inside the folder, you will find a **MXBreadcrumbs-[version].mxd** file.
 3. Double click on this file. The Macromedia Extension Manager will automatically begin installing the extension.
 4. A Macromedia disclaimer will appear. If you agree to the terms click the "Accept" button.

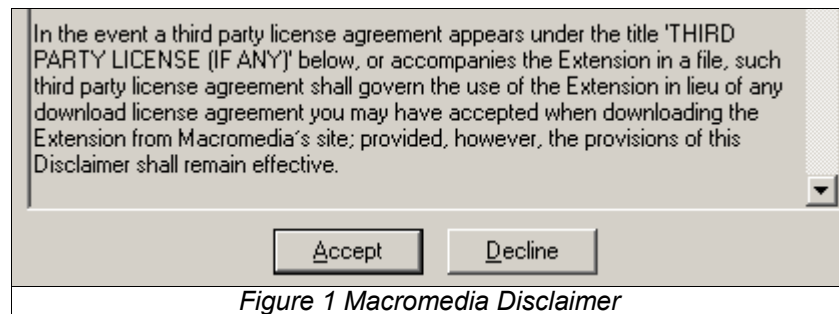


Figure 1 Macromedia Disclaimer

- When the Extension Manager finishes installing (usually just a few seconds), a dialog box will appear notifying you that the installation is complete.

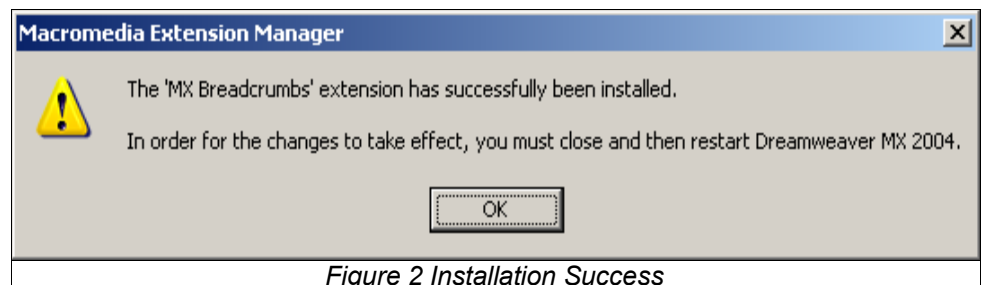


Figure 2 Installation Success

- If you have Macromedia Dreamweaver open, you must close it then reopen it for the MX Breadcrumbs elements to appear.

5 Exploring MX Breadcrumbs

In this section, you will begin to explore the **MX Breadcrumbs** workspace, and learn how to use its functionalities. Also included are steps for configuring your site and database connection so that you can start using **MX Breadcrumbs** right away.

6 Workspace Orientation

There are two areas where **MX Breadcrumbs** elements appear. The first is in the **Insert** panel. At the far right you will see a tab labeled **InterAKT**. When the tab is clicked, a **MX Breadcrumb** button appears. Later in this tutorial you will use the **Create Breadcrumbs** button.

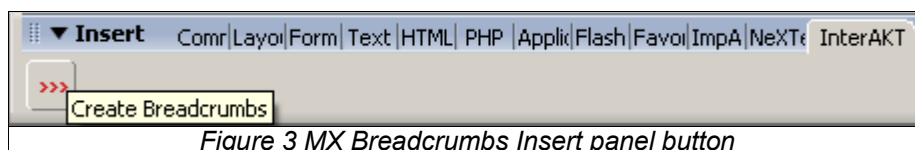


Figure 3 MX Breadcrumbs Insert panel button

The second area to find another **MX Breadcrumbs** element is in the **Recordset** interface in the **Server Behaviors** tab or the **Bindings** one of the **Application** panel. By clicking on the **Breadcrumbs** button in this interface, you will be able to configure the **Breadcrumbs Advanced Recordset**.

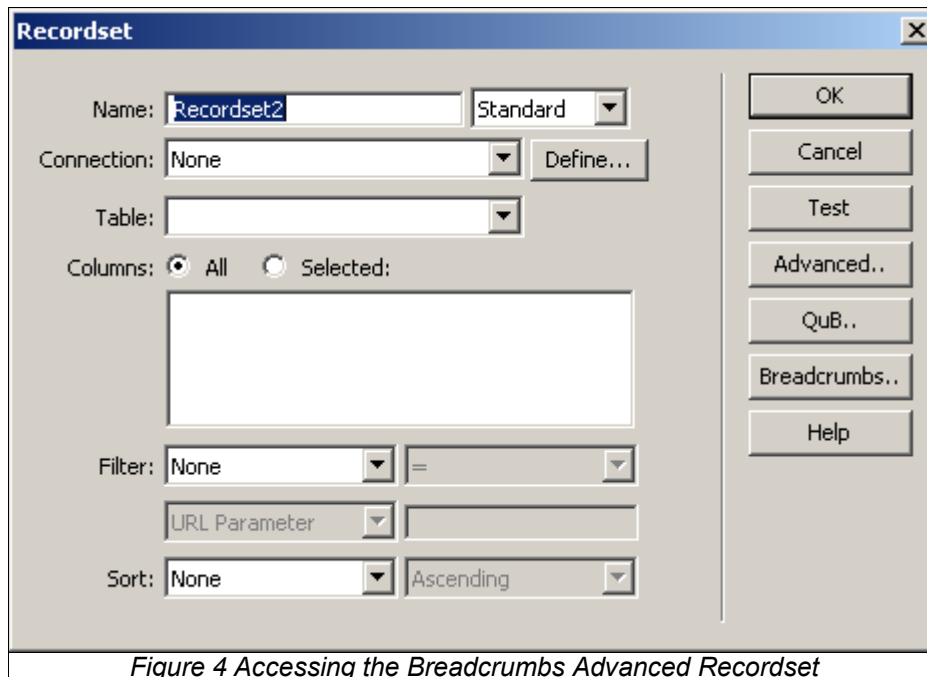


Figure 4 Accessing the Breadcrumbs Advanced Recordset

To start creating your site using **MX Breadcrumbs**, there are three things that must be done first:

1. setting up your database
2. configuring the site
3. creating a database connection.

The first part, setting the database can be done by all users, while the instructions for the next two parts will depend on your server model.

If you already have a database, site, and connection set up, feel free to skip this section and move on to the **Inserting Breadcrumbs** section. Keep in mind that you will need to substitute your own variable names where appropriate, to match your server configuration.

7 Application Scenario

In this tutorial, you will create breadcrumbs into two web pages.

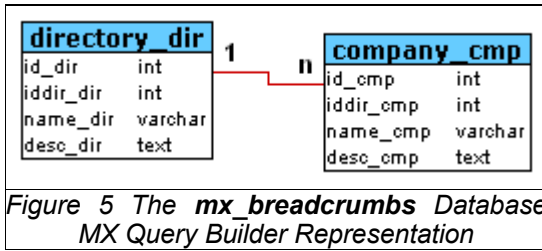
- First you will create the so called *directory index* page that will lists all directories from the *directory_dir* table on levels. This will allow an hierarchical navigation. On this page you will insert breadcrumbs displaying the entire hierarchy to the currently selected directory.
- Next, you will create a page that will display the companies' descriptions. The first page will be linked to this second one which will also include breadcrumbs displaying the entire hierarchy to the currently selected company belonging to the corresponding directory.

8 Setting Up the Database

For this tutorial, you'll use a database named **mx_breadcrumbs**, containing 2 tables.

The complete scripts used to generate the database tables are included in the **MX Breadcrumbs** distribution package. This also contains the MS Access **mx_breadcrumbs** database.

Please find below the graphical representation of the database made using **MX Query Builder**:



Tips

MX Query Builder is an **InterAKT Online** product which provides a visual interface for generating complex SQL queries and managing table relations. Check out <http://www.interaktonline.com/products/QuB> for more information.

These tables will store information on the elements that will be displayed in the breadcrumbs:

- ◆ *directory_dir* – this table stores all directories that are to be displayed in the breadcrumbs. The table fields are: *id_dir* (the primary key), *iddir_dir* (the self foreign key), *name_dir* (the directory name), *desc_dir* (the directory description).
- ◆ *company_cmp* – this table stores all companies that are to be displayed in the breadcrumbs. The table fields are: *id_cmp* (the primary key), *iddir_cmp* (the foreign key to the *directory_dir* table), *name_cmp* (the company name), *desc_cmp* (the company description).



Caution

The MySQL user must have certain rights as: SELECT, INSERT, UPDATE and DELETE for the data and ALTER, DROP AND CREATE TEMPORARY TABLES for the structure. For more information about setting the users rights for MySQL databases, please visit: http://www.mysql.com/doc/en/User_Account_Management.html

9 Site Configuration

Open Macromedia Dreamweaver MX. Using the **New Site** option from the **Site** menu, create a new site named mx_breadcrumbs. Configure your site following the next three steps.

Configuring the Local Info section:

The **Local Information** section is where you define the location where you store all site files before uploading them to the server.



Note

For the site configuration section, you must provide your own settings. The following list is just an example.

- **Site Name:** mx_breadcrumbs
- **Local Root Folder:** C:\Sites\mx_breadcrumbs\
- **Refresh Local File List Automatically:** Checked
- **Default Images Folder:** You can either enter the name of your images folder, or leave this blank
- **HTTP address:** http://work.iakt.ro/test/mba/mx_breadcrumbs/
- **Cache:** enabled

Configuring the Remote Info section:

- **Access:** Local/Network
- **Remote Folder:** V:\test\mba\mx_breadcrumbs\

- **Refresh Remote File List Automatically:** checked
- **Automatically upload files to the server on save:** checked

Configuring the Testing Server section:

- **Server Model:** You must provide your own server model. In this tutorial, **PHP_ADODB** was used. Therefore, all screen-shots were made when creating a **PHP_ADODB** site.
- **Access:** Local/Network
- **Testing Server Folder:** V:\test\mba\mx_breadcrumbs\
- **Refresh Remote File List Automatically:** Checked
- **URL Prefix:** http://work.iakt.ro/test/mba/mx_breadcrumbs/

10 Database Connection

Before setting up the database connection, you should create the pages used in this tutorial:

- *directory.php/directory.cfm/directory.asp*
- *company.php/company.cfm/company.asp*

Content for these files will be completed later in the tutorial.

To set up your database connection, select the appropriate section according to your server model. The other three may be skipped.

PHP_ADODB

Open the *directory.php* page.

Create a new database connection by using the **ADODB Connection** option, that can be found using the Plus (+) button from the **Databases** tab in the **Application** panel. This option is available only to **PHAkt2** users.

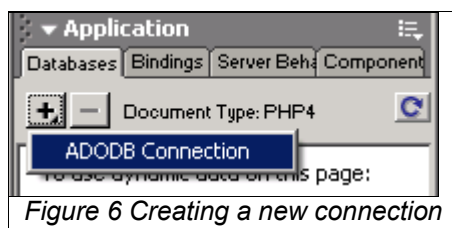


Figure 6 Creating a new connection

Then follow the example below to properly configure the connection:

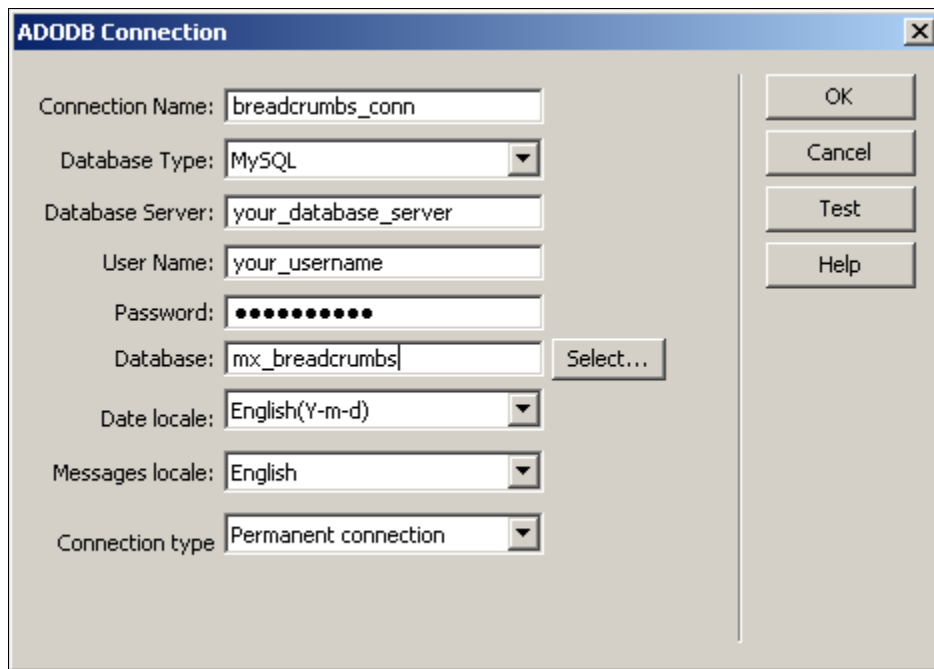


Figure 7 ADODB Connection Configuration

PHP_MySQL

Open the *directory.php* page.

If you use PHP and MySQL, create a MySQL connection:

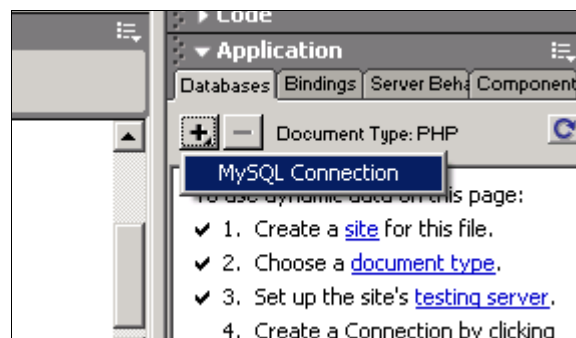


Figure 8 Creating a MySQL connection

Follow the below example to properly configure the MySQL connection:

Please replace the *Database Server*, *User Name*, and *Password* field values to reflect your configuration settings.

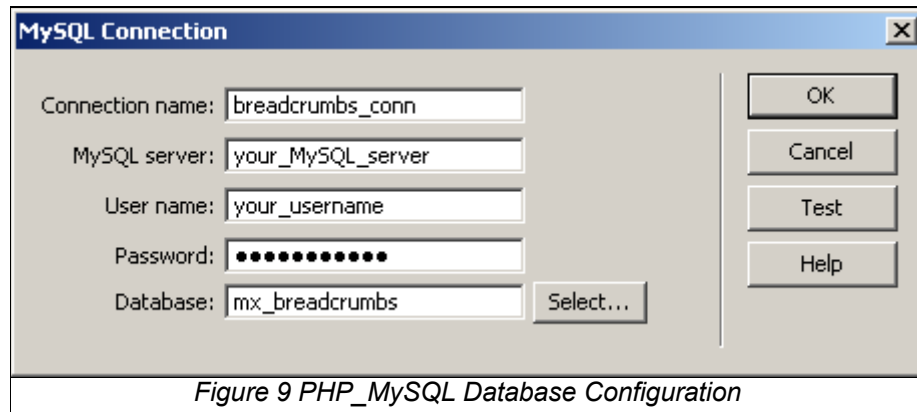


Figure 9 PHP_MySQL Database Configuration

ColdFusion

In order to be able to query the **mx_breadcrumbs** database to retrieve information, you have to create a system DSN on the testing and/or remote server. You can use the **mx_breadcrumbs.mdb** script provided with this tutorial. The Data Source Name (DSN) provides connectivity to a database through an ODBC driver. The DSN contains database name, directory, database driver, user ID, password, and other information. Once you create a DSN for a particular database, you can use the DSN in an application to call information from the database.

To create a system DSN on the ColdFusion server:

2. In Windows, from the **Start** menu go to **Settings->Control Panel->Administrative Tools** and double-click **Data Sources (ODBC)**.
3. Select the **System DSN** tab. Click on the **Add** button.
4. In the displayed window, select **Microsoft Access Driver (*.mdb)** as driver for which you want to set up a data source and click **Finish**.
5. In the configuration window that is displayed:
 - Enter **MX_Breadcrumbs_Tutorial** in the **Name** field
 - Navigate to the **mx_breadcrumbs.mdb** database script provided with this tutorial, using the **Select** button, as shown below:

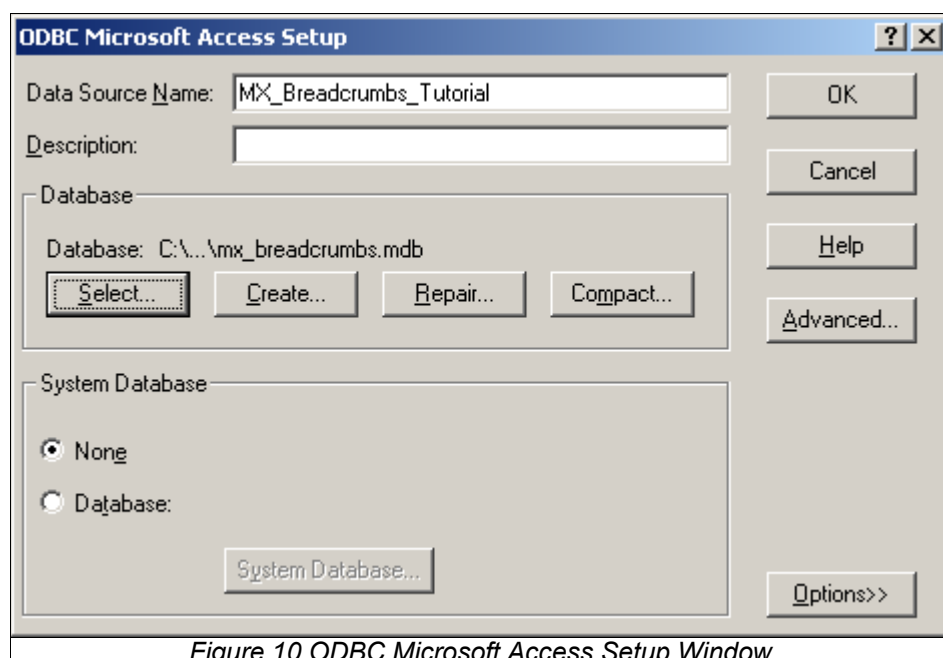


Figure 10 ODBC Microsoft Access Setup Window

5. Click **OK** when done, than click **OK** once again.

Next, after you open the *directory.cfm* page, you will notice in the **Bindings** tab of the **Application** panel a checklist with the settings that are to be made in order to use dynamic data on the page:

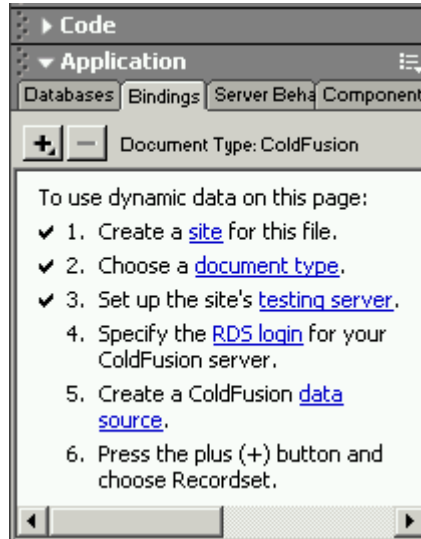


Figure 11 Settings for Using Dynamic Data

As you can see, the next step is to specify the RDS login for your ColdFusion server. After clicking on the **RSD login** link, enter the password to access the ColdFusion server:



Figure 12 Login to ColdFusion RDS

If the *MX_Breadcrumbs_Tutorial* system DSN that you have created previously is found, it will be displayed in the **Databases** tab and the 4th and 5th steps of the **Bindings** tab list will be also checked. If not, click on the **data source** link and you will be redirected on a Internet browser window where you should:

1. Enter the ColdFusion server password.
2. Select the **Data Sources** sub-menu from the **DATA & SERVICES** left menu.
3. In the **Add New Data Source** section enter *MX_Breadcrumbs_Tutorial* for the **Data Source Name**, select Microsoft Access from the **Driver** menu and click on the **Add** button.

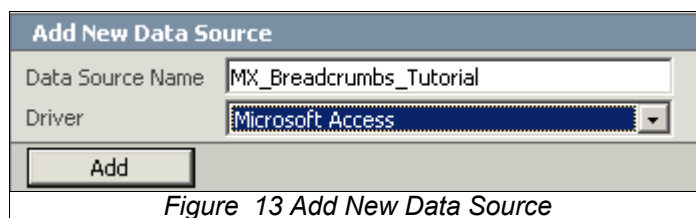


Figure 13 Add New Data Source

Go back in Dreamweaver MX and click on the **Refresh** button:

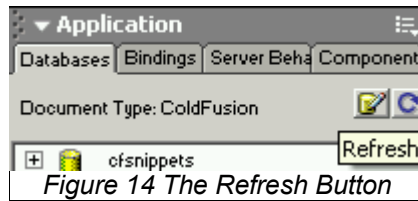


Figure 14 The Refresh Button

Normally, the **MX_Breadcrumbs_Tutorial** data source should appear in the **Databases** list.

ASP

In order to be able to query the **mx_breadcrumbs** database to retrieve information, you have to create a system DSN on the testing and/or remote server. You can use the **mx_breadcrumbs.mdb** script provided with this tutorial. The Data Source Name (DSN) provides connectivity to a database through an ODBC driver. The DSN contains database name, directory, database driver, user ID, password, and other information. Once you create a DSN for a particular database, you can use the DSN in an application to call information from the database.

To create a system DSN on the ColdFusion server:

1. In Windows, from the **Start** menu go to **Settings->Control Panel->Administrative Tools** and double-click **Data Sources (ODBC)**.
2. Select the **System DSN** tab. Click on the **Add** button.
3. In the displayed window, select **Microsoft Access Driver (*.mdb)** as driver for which you want to set up a data source and click **Finish**.
4. In the configuration window that is displayed:
 - Enter **MX_Breadcrumbs_Tutorial** in the **Name** field
 - Navigate to the **mx_breadcrumbs.mdb** database script provided with this tutorial, using the **Select** button, as shown below:

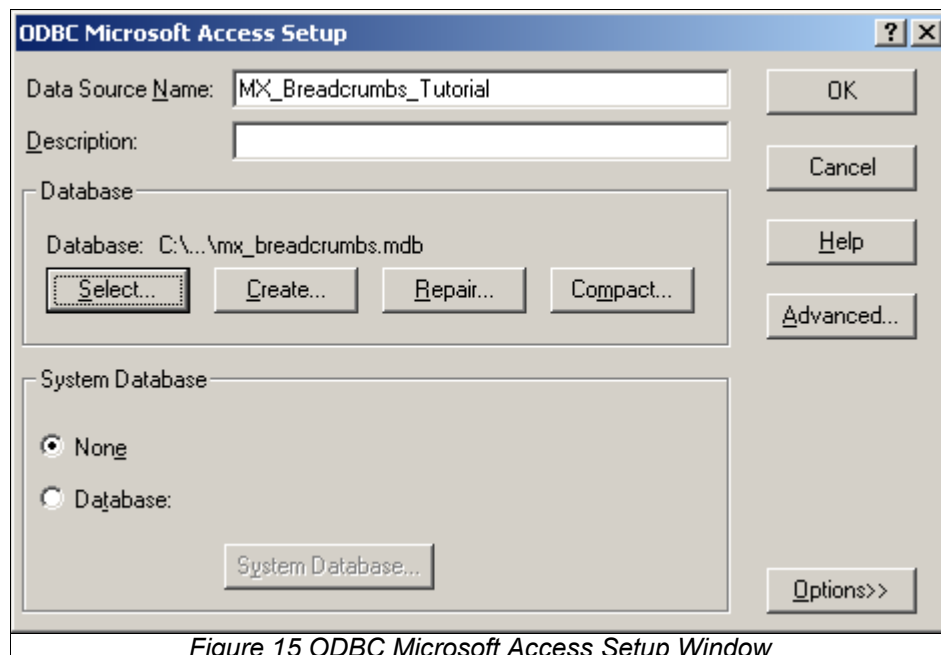
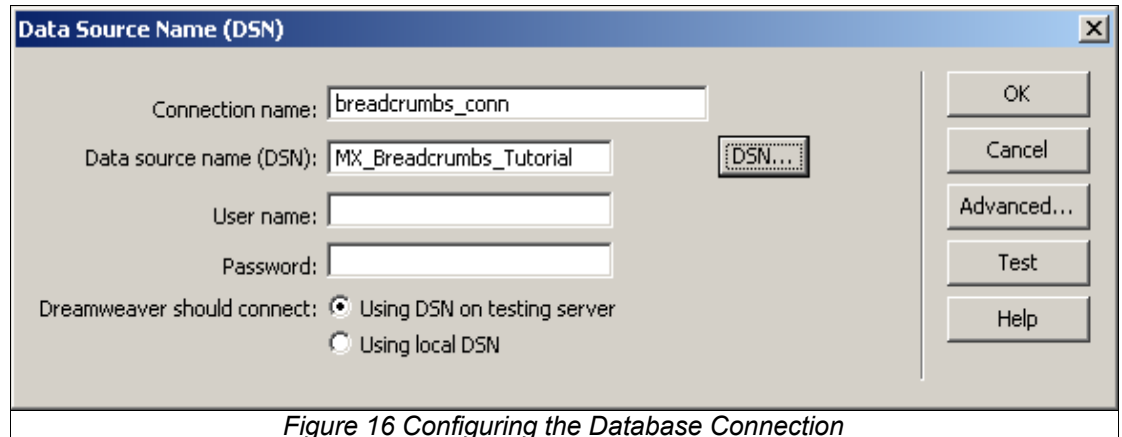


Figure 15 ODBC Microsoft Access Setup Window

5. Click **OK** when done, then click **OK** once again.

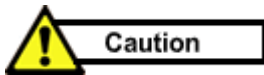
Next, open the *directory.asp* page.

Go to the **Databases** tab from the **Application** panel and click on the "+" button. In the connection configuration window that is displayed, enter the connection name (for example *breadcrumbs_conn*), check the *Using DSN on Testing Server* radio box, click on the **DSN** button and select *MX_Breadcrumbs_Tutorial*, the DSN that you have created on your testing server.



When using a local ASP testing server running on **Windows XP** with Service Pack 2 installed, and you specify *Using DSN on testing server* when connecting to a database from Dreamweaver, the connection fails. To solve this problem, download and install the Dreamweaver extension that resolves this issue from our site. First read the technote:

http://www.interaktonline.com/Products/Bundles/MXKollection/Technotes/Details/Database+connection+fails+with+ASP+servers.html?id_thn=72.

**Caution**

For all server models: after creating the connection to the database, Macromedia Dreamweaver MX generates a folder, named **_mmServerScripts**. This folder contains some scripts that read information about your database and supply it to the Dreamweaver interface. When publishing your site, you have to delete this folder from the production server because it allows an attacker to gain unauthorized access to the database.

11 Using MX Breadcrumbs

Now that you have the database, site, and connection set up you will be introduced to **MX Breadcrumbs's** features. In this section you will create the *directory index* page that will display a list of directories and the breadcrumbs. For a certain directory, the corresponding companies will be listed. You will also create the page that will display the description for each currently selected company.

12 Creating the Directory Page

Open the *directory.php/directory.cfm/directory.asp* file.

To create the *directory index* (along with the breadcrumbs), simply apply the **Create Breadcrumbs** command from the **Insert** panel -> **InterAKT** tab. The following user interface will be displayed:

Figure 17 Applying the Create Breadcrumbs command

Configure it as shown above. As you can see, when selecting the *directory.php/directory.cfm/directory.asp* page in the **Page** field, the **Apply directory recordset** box is pre-checked because the name of the selected page is the same as the one the command is applied on.



Note

For the *ColdFusion* developers, the **Connection** name will be the DSN name: *MX_Breadcrumbs_Tutorial*.

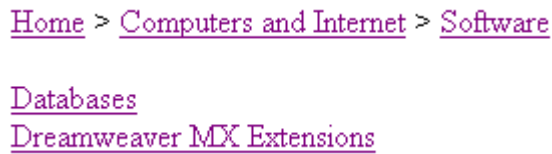
For more information about this command, please refer to the **MX Breadcrumbs User Manual**.

Upload the site on the testing server because the */include* folder is not automatically put.

This is how the *directory.php/directory.cfm/directory.asp* page should look like at this point:

Figure 18 The code generated by the command in Design View

In the browser the result should be:



[Home](#) > [Computers and Internet](#) > [Software](#)

[Databases](#)

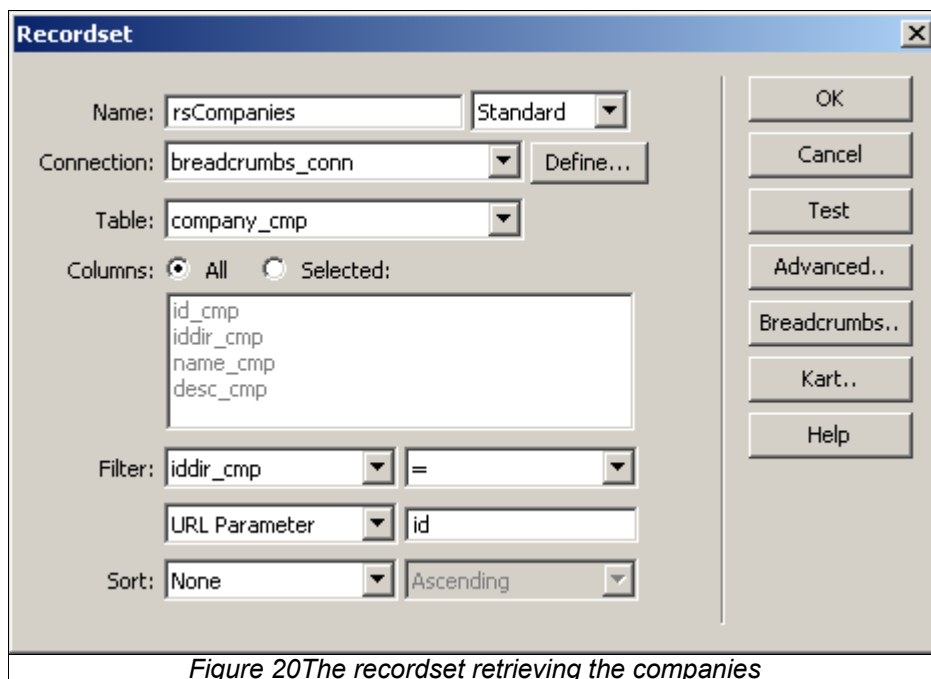
[Dreamweaver MX Extensions](#)

Figure 19 The result in the browser

Next, we want to display on this page the list of companies belonging to the currently selected directory.

For this, follow the steps:

2. After the second Repeat Region write **Companies:**.
3. Create a new recordset by clicking on **Application** panel -> **Server Behaviors** tab -> + -> **Recordset**.
4. Configure it as shown below:



Recordset

Name: Standard

Connection: Define...

Table:

Columns: All Selected:

Filter: =
URL Parameter:

Sort: Ascending

OK
Cancel
Test
Advanced..
Breadcrumbs..
Kart..
Help

Figure 20 The recordset retrieving the companies

5. Go to the **Application** panel -> **Bindings** tab and drag the **name_cmp** field (from the **rsCompanies** recordset) and drop it into the page under the **Companies:** text.

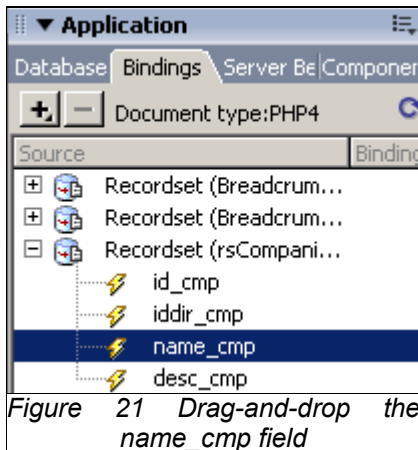


Figure 21 Drag-and-drop the *name_cmp* field

6. Select `{rsCompanies.name_cmp}` and make a link by clicking on the **Browse for File** button in the *Property Inspector*:



Figure 22 The Browse for File button

7. In the displayed interface select the `company.php/company.cfm/company.asp` page and click on the **Parameters** button.

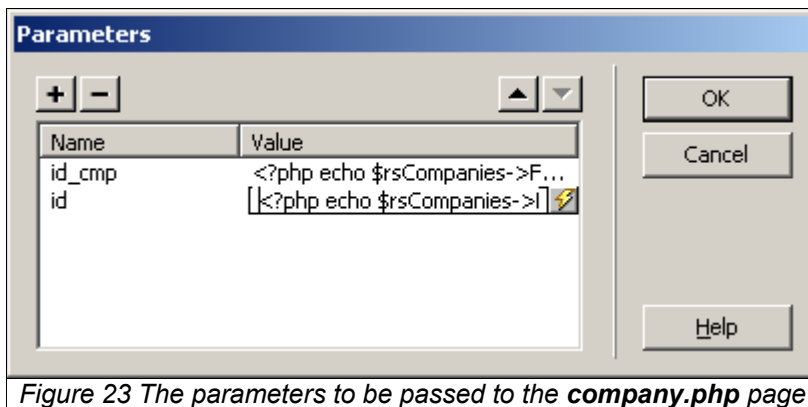


Figure 23 The parameters to be passed to the *company.php* page

Two parameters will be passed: *id_cmp* and *id*.

To insert a parameter, click on the Plus (+) sign in the **Parameters** window. In order to set its value, click on the lightning bolt.

For the *id_cmp* parameter select *id_cmp* from the *rsCompanies* recordset while for *id* select *iddir_cmp* from the same recordset:

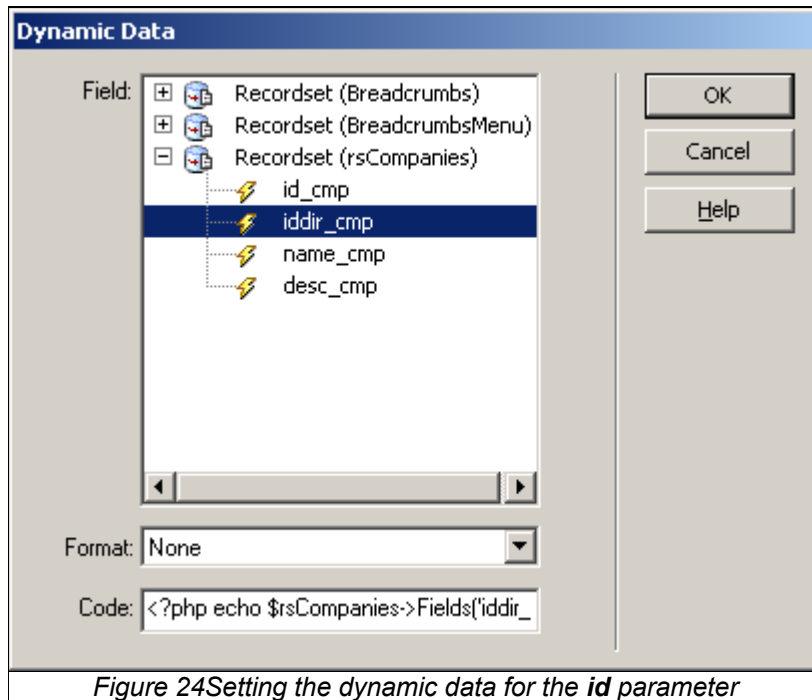
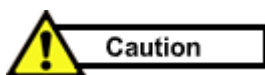


Figure 24 Setting the dynamic data for the *id* parameter

8. Select `{rsCompanies.name_cmp}` and apply a **Repeat Region** from the **Application** panel -> **Server Behaviors** tab.



Figure 25 Applying a Repeat Region to the *rsCompanies* recordset



Caution

Due to a Dreamweaver MX bug, you should press **Shift +Enter** (inside the **Repeat Region**) in order to display each record on a different row (it will insert a `
` tag). The ColdFusion developers should insert another `
` tag outside the **Repeat Region**.

9. Select the *Companies:* text and the **Repeat Region** and apply a **Show If Recordset Is Not Empty** from the **Application** panel -> **Server Behaviors** tab -> **Show Region**.

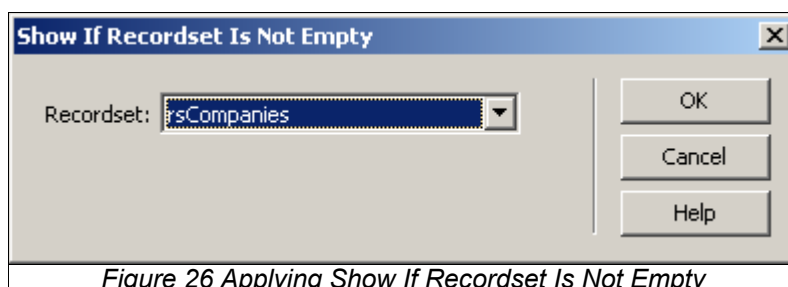


Figure 26 Applying Show If Recordset Is Not Empty

10. Check the result in the browser:

[Home](#) > [Computers and Internet](#) > [Organizations](#) > [Multimedia](#)

Companies:

[AAIM - The Association for Applied Interactive Multimedia](#)

[Academy of Interactive Arts & Sciences](#)

[Multimedia Art Asia Pacific \(MAAP\)](#)

Figure 27 The companies list in the browser



Tips

In order to include nested repeat regions and to create a tabular view for your data, you can use the **MX Looper Nested Repeat Region** and **Horizontal Looper** features. For more information about **MX Looper**, please refer to: <http://www.interaktonline.com/Products/Dreamweaver-Extensions/MXLooper/>.

13 Creating the Company Page

Open the *company.php/company.cfm/company.asp* page and follow the steps presented below:

1. Apply the **Create Breadcrumbs** command from the **Insert** panel -> **InterAKT** tab. A user interface similar to the one below will be displayed:

The screenshot shows the 'Create Breadcrumbs' dialog box with the following configuration:

- Connection: breadcrumbs_conn
- Table: directory_dir
- Primary Key: id_dir
- Parent ID: iddir_dir
- Display Name: name_dir
- GET Parameter: id
- Page: directory.php
- Apply directory recordset:

Figure 28 Applying the Create Breadcrumbs command on the *company.php* page

Configure it as shown above.

For the **Table** field you should select the table containing data organized in an hierarchical manner that will be displayed in the breadcrumbs. Therefore, select *directory_dir*.

For the **Page** field you should select name of the page that will list in an hierarchical manner all the data from the table selected above. This is the so called **directory index** page – in this case *directory.php/directory.cfm/directory.asp*.

As you can see, when selecting the *directory.php/directory.cfm/directory.asp* page in the **Page** field, the **Apply directory recordset** box is inactive because the name of the selected page is different from the one the command is applied on.

2. Create a new recordset by clicking on **Application** panel -> **Server Behaviors** tab -> + -> **Recordset**.
3. Configure it as shown below:

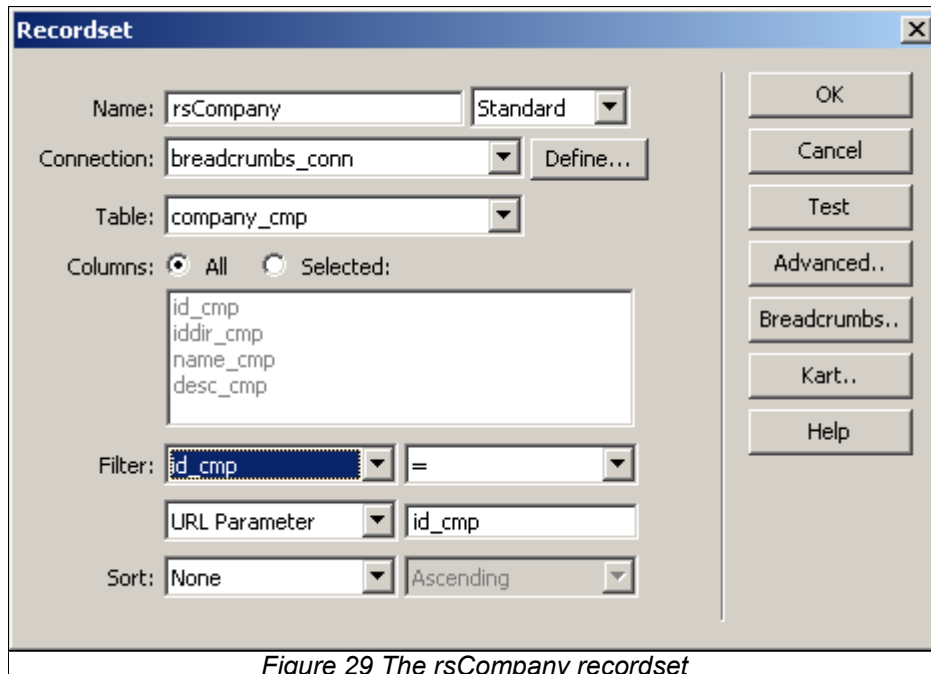


Figure 29 The rsCompany recordset

4. Go to the **Application** panel -> **Bindings** tab and drag the *name_cmp* field (from the *rsCompany* recordset) and drop it as shown below:

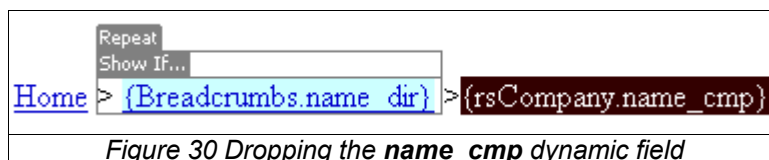


Figure 30 Dropping the name_cmp dynamic field

5. Under the breadcrumbs insert a horizontal rule from the **Insert** menu -> **HTML** option.
6. Go back to the **Application** panel -> **Bindings** tab and drag the *desc_cmp* field (from the *rsCompany* recordset) and drop it as shown below:

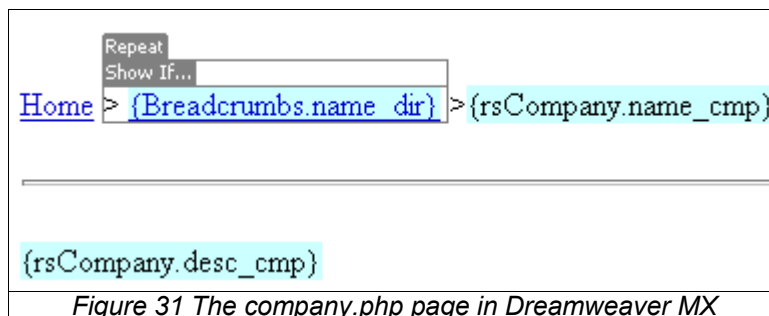


Figure 31 The company.php page in Dreamweaver MX

7. Check the result in the browser:

[Home](#) > [Computers and Internet](#) > [Software](#) > [Dreamweaver MX Extensions](#) > InterAKT Online

InterAKT is a company that creates professional tools for dynamic website development. InterAKT has two main lines of business: creating tools that extend Dreamweaver MX and offering IT consulting services (Web and Intranet). Those two lines affect the revenues almost equally, but currently we are focusing more on the products as they have a much larger potential market share.

Figure 32 The company.php page viewed in the browser

14 Conclusion

MX Breadcrumbs is a mini-extension allowing you to dynamically include breadcrumbs in your site pages with just a few mouse clicks. The product enables you to retrieve information from your database and to display it in the breadcrumbs.

15 Further Reading

For more information about the **MX Breadcrumbs** features, please refer to the **MX Breadcrumbs User Manual**.

16 Appendix - versions

17 PHP

To create this user manual we have used the following software versions:

Code Generator: Macromedia Dreamweaver MX 6.1 or 2004

Extensions: **MX Breadcrumbs** 1.0.0

Database server: MySQL 3.23

PHP: PHP 4.3.2

Web server: Apache Web Server 1.3.27

Operating systems:

Workstation: Microsoft Windows 98 or XP

Web server: Redhat Linux 7.2 or 8.0

18 ColdFusion

To create this user manual we have used the following software versions:

Code Generator: Macromedia Dreamweaver MX 6.1 or 2004

Extensions: **MX Breadcrumbs** 1.0.0

Database server: Microsoft Access

Web server: ColdFusion MX 6.1

Operating systems:

Workstation: Microsoft Windows XP

Web server: Windows XP Professional

19 ASP

To create this user manual we have used the following software versions:

Code Generator: Macromedia Dreamweaver MX 6.1 or 2004

Extensions: **MX Breadcrumbs** 1.0.0

Database server: Microsoft Access

Web server: IIS 5.0, 5.1, 6.0

Operating systems: Windows Server 2000

Windows XP Professional

Windows 2003

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