

TEXTML Server

Leveraging XML Content in
Microsoft Content Management Server 2002

White Paper

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I - Introduction

The much-anticipated launch of Microsoft Content Management Server 2002 (CMS 2002) will surely shake up the Enterprise Content Management world. Designed specifically to accelerate the development and deployment of web-based Internet, intranet and extranet sites, CMS 2002 will make content management easier and accessible to all.

IXIASOFT has created a CMS 2002 integration kit for its flagship product, TEXTML Server that will enable CMS developers to deploy sites that take advantage of TEXTML Server's award-winning high-performance XML search technology.

The integration of TEXTML Server in a CMS 2002 project will deliver:

- Accelerated development
- The ability to leverage the XML placeholder functionality of CMS 2002
- Enhanced content manipulation
- Drag and drop .Net Controls within the Visual Studio .Net environment for XML search and results presentation
- High performance XML search functionality

CMS developers will be able to drag and drop controls directly from the Visual Studio.Net environment, allowing them to easily add content-based search and sorting functionality on the content of placeholders, properties and custom properties

II - TEXTML Server Overview

TEXTML Server is an XML content server designed specifically to facilitate the publishing of XML content. It consists of a repository, indexing engine and search engine whose functionalities are exposed via API.

Features and Benefits

Repository

TEXTML Server document bases can store and index millions of XML documents in a secure environment. TEXTML Server was designed specifically to manage large volumes of XML content but also has the ability to store and retrieve any other binary file format. TEXTML Server also enables the locking of document bases or individual documents through a check-in/check-out feature.

Indexing Technology

TEXTML Server's indexing technology sets it apart from other traditional search technologies. It enables the administrator to logically group semantically similar yet syntactically different elements or attributes in the same index. In addition, TEXTML Server

allows the creation of different types of indexes – Word (full text), String, Date, Time and Numerical. It also indexes document properties and can efficiently combine queries across indexes of differing types. The indexing procedure can be triggered to incrementally update the indexes automatically based on multiple criteria – each document added to a document base, an elapsed time period, a specific time or a given amount of data added.

Search Engine

TEXTML Server's indexing technology enables the powerful combination of full text and metadata searching to return the most accurate results from complex queries. As a CMS developer, you will be able to perform queries as complex as **return all “Approved ” “postings” in Channel “X”** that contain the phrase **“IXIASOFT TEXTML Server”** and have the **returned results sorted according** to a given **CMS property** or **custom property**.

III - Integration

How Will TEXTML Server Add Value to CMS 2002?

By facilitating the job of the CMS developer in creating dynamic search functionality for targeted areas of their application. IXIASOFT's integration kit consists of .Net Composite Controls that can be dragged and dropped from the Visual Studio.Net toolbox into a CMS site being developed. These customizable controls will enable a developer to provide search and sort functionalities on postings based on the content of placeholders, properties and custom properties.

Since TEXTML Server is designed from the ground up to manage XML content, this integration will also complement a new feature of CMS 2002, the XML placeholder. It will be possible to create customized search interfaces based on the structure and content of XML placeholders.

As a hook to CMS 2002, IXIASOFT developed an 'Event Handler' that traps all events related to postings that have the status 'Approved' or 'Published'. This enables TEXTML Server to detect all new postings or those that have been modified in any way. When such an event is detected, it triggers TEXTML Server to insert a copy of the posting into its repository and index the content of the placeholders as well as the content of the properties and custom properties. This mechanism ensures that all new or modified postings are in synch with the live site and that the content is available to be searched. See Figure 1 for an overview of the integration's architecture.

Integration Architecture

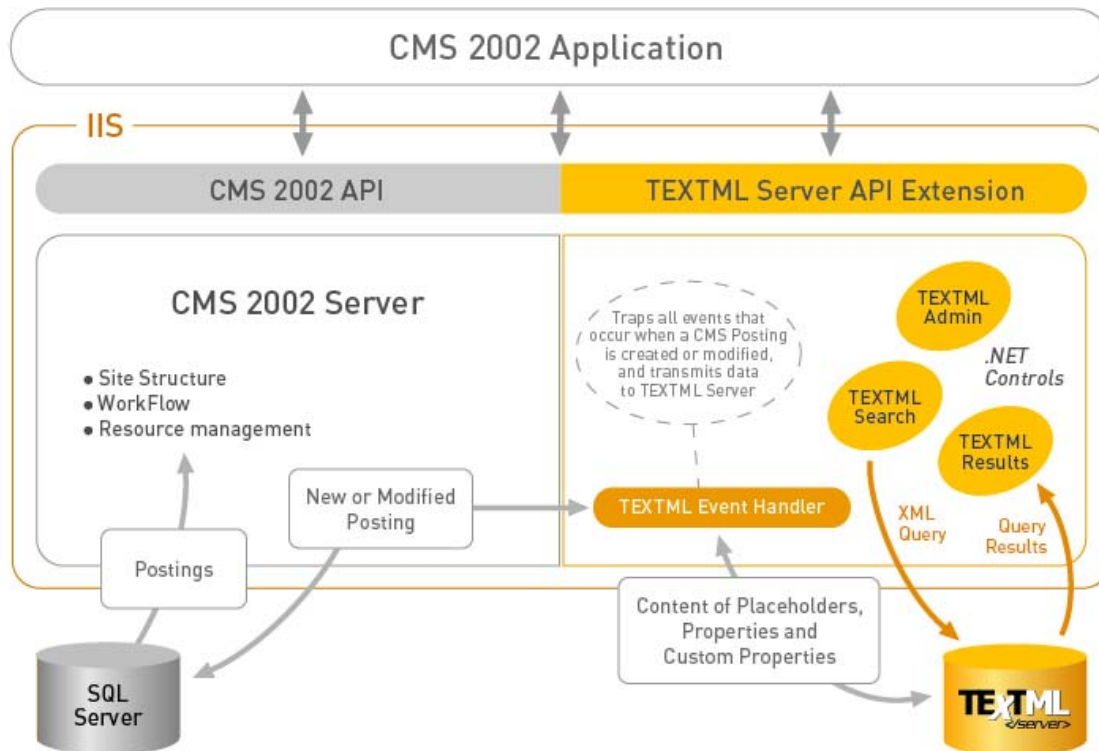


Figure 1: TEXTML Server Integration Architecture

Controls

Each control has been developed in C# and will be compiled as a .dll, enabling the control to be dragged and dropped from a toolbox of a visual designer such as Visual Studio.Net.

TEXTML Server Search Control

This control includes a component called the Query Builder, a visual interface for managing indexes and accelerating the development of custom search interfaces. The TEXTML Server Search control processes queries designed in the Query Builder, where a visual interface presents indexes for selection to help in the development of custom search GUIs for the end users. The Query Builder is also used to process search requirements and to build a query that is passed on to TEXTML Server. The Search Control then returns a list of posting references (GUIDs) to the Search Results Control.

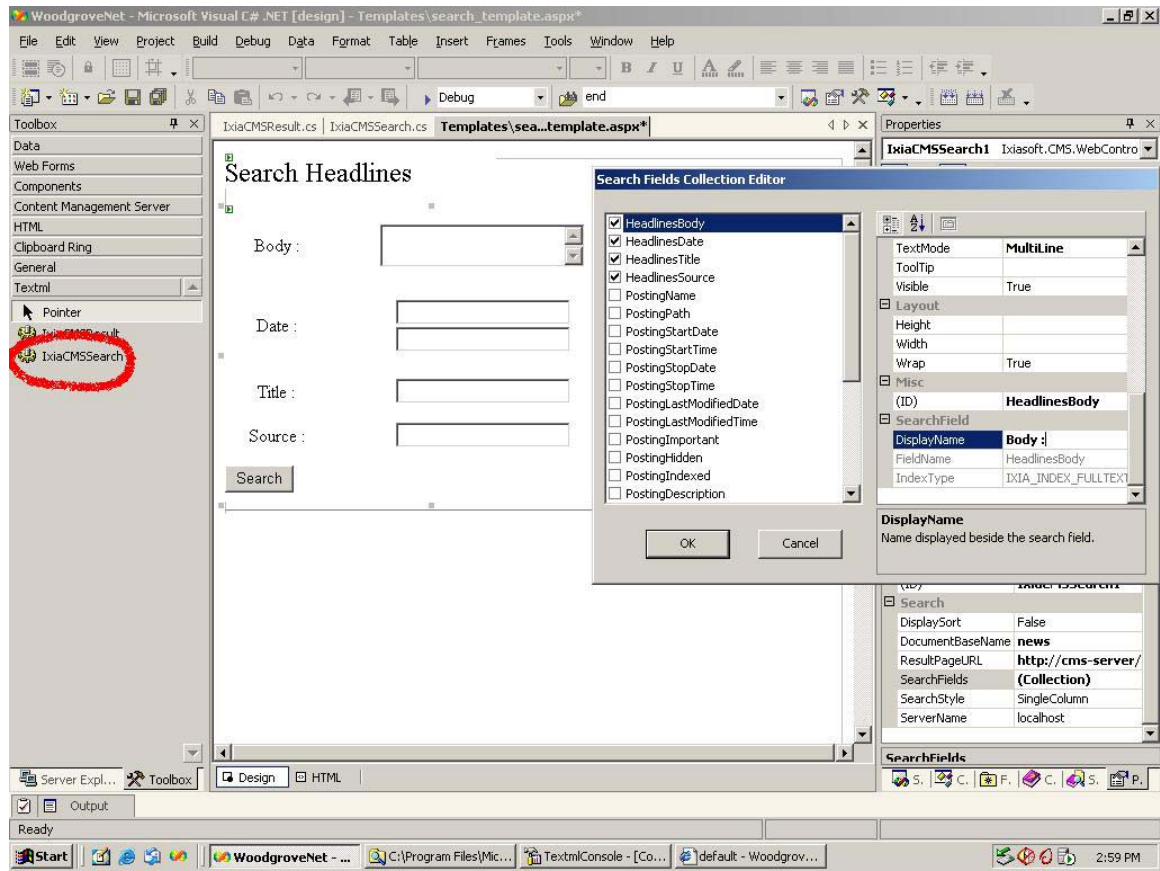


Figure 2: IxiaCMSSearch Control in the Visual Studio .NET environment

TEXTML Server Search Results Control

The Search Results Control receives the list of posting references from the TEXTML Server Search Control and processes it according to a predefined Result Space template. The template defines the layout of content and determines its display based on the type of posting. It takes its information from the Search Results Control.

Each template is customizable and can determine details such as how many results to display, in what order to display the results (with TEXTML Server, results can be sorted according to the content of an indexed element or attribute) and what exactly will be displayed.

For example, one might use these controls to search the content of articles provided by a news feed. We may decide that for this particular application, it would be appropriate to display the first 10 headlines including the author and source, sorted in reverse chronological order, and by the name of the source. An end user could then page through the headlines and select the articles of interest, retrieving the entire body of the article.

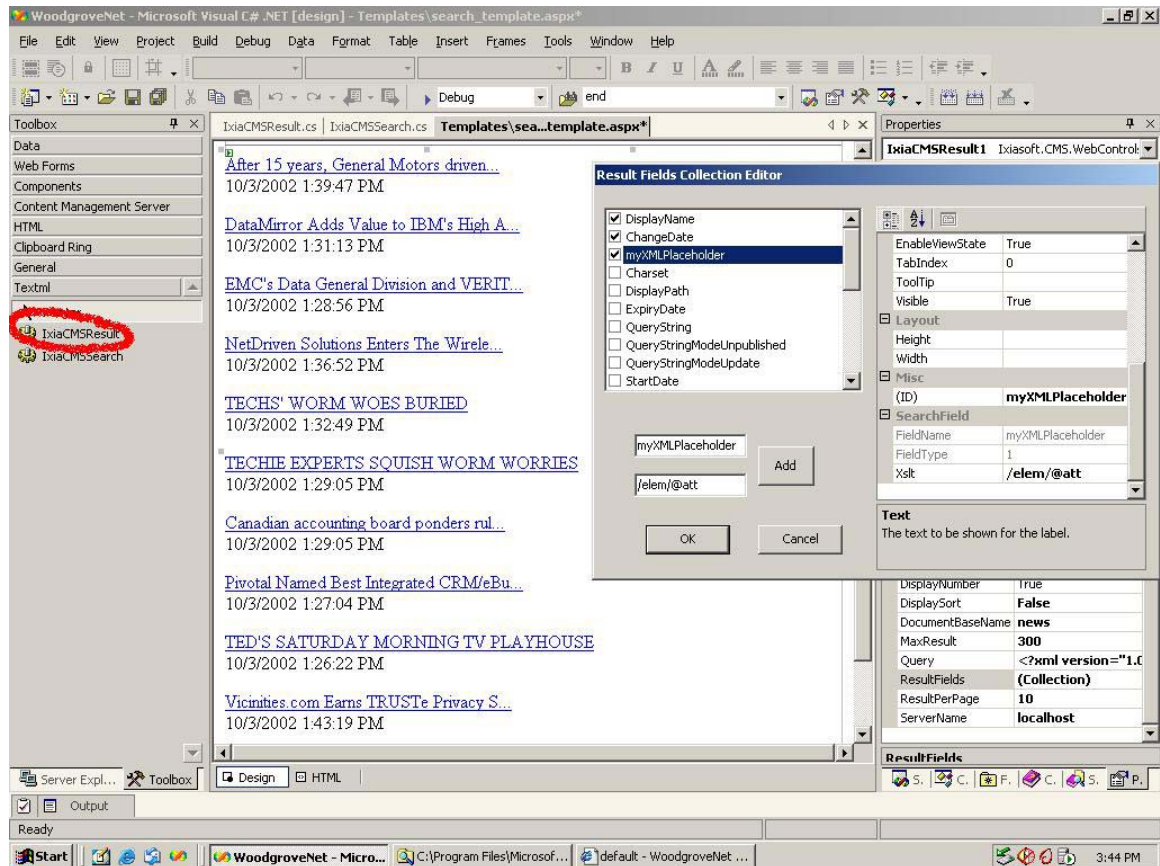


Figure 3: IxiaCMSResult Control in the Visual Studio .NET environment

Administration Interface

The integration kit will also include a visual administration interface to facilitate the administration of TEXTML Server document bases and indexes. Since TEXTML Server indexes are fully customizable, this interface will help developers create application-specific search functionality as well as modify the existing controls.

Reporting

The administration interface provides the ability to create custom reports on postings by querying TEXTML Server. Predefined reports are provided as well as the facilities to create custom reports. Using TEXTML Server, one can create reports based on the content of placeholders, properties and custom properties.

Examples of reports:

- All postings to be published in the next 5 days, sorted by Channel and date of publication.
- All postings that have remained unchanged over the last 90 days, sorted by last date modified.

These examples could also incorporate searches for specific placeholder content, i.e.: all approved postings containing the words "CMS 2002 Launch".

IV - Conclusion

By embedding .Net controls directly in the Visual Studio .Net environment, the TEXTML Server integration for CMS 2002 will enable Microsoft integrators to rapidly include functionality that leverages the content in a CMS 2002 project by delivering the tools necessary to manipulate, search and sort postings based on the content of placeholders, properties and custom properties.

In addition, the integration will provide the means to take full advantage of CMS 2002's newest XML features such as the XML placeholder.

For more information, go to the IXIASOFT homepage:

www.ixiasoft.com

Try a free 30-day evaluation edition of TEXTML Server:

<http://www.ixiasoft.com/products>