CASEMaker Multimedia Solutions

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CASEMaker

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Contents

Overview: CASEMaker Multimedia Solutions

If you are seeking a *low-cost, feature-rich* family of multimedia solution products to view, manage, and develop multimedia technology, your search is over.

DBMAKER

DBMaker is a cross-platform SQL Database Management System with integrated support for multimedia. DBMaker's native ODBC API, high-performance database engine, and compact size make it easy to build small, fast multimedia applications using off-the-shelf development tools. Applications you create using DBMaker also benefit from the robust data protection features and powerful search capabilities without any additional work on your part.

MEDIABINDER

MediaBinder is CASEMaker's entry-level solution for capturing, organizing, and presenting media data. Since MediaBinder is built on the DBMaker engine, it takes advantage of the powerful features of a multimedia database management system.

MEDIASERVER

Integrating the MediaBinder Enterprise Edition, DBMaker, and iStreamer, MediaServer is an enterprise multimedia management solution that makes media objects accessible to multiple users on a network. MediaServer not only makes it easy to share multimedia data, it also offers the latest streaming technology.

ISTREAMER

iStreamer API technology lets you easily create streaming multimedia client applications. iStreamer's multimedia streaming technology integrates smoothly with databases, browsers, and media presentation software. iStreamer supports the MPEG standard, making it ideal for users on an intranet or other high-bandwidth environments.

WEBBINDER

WebBinder is CASEMaker's latest addition to the multimedia family of products. Consisting of MediaBinder, DBMaker, and DBMaker Application Server, WebBinder lets you automatically manage multimedia content on a Web server.

DBMaker

DBMaker is an SQL Database Management System built around a tightly integrated, modern database engine. Designed from the ground up for today's data management needs, DBMaker is not burdened by the limitations of earlier SQL engines. As a result it seamlessly blends advanced multimedia features with a full complement of traditional database functions, providing unmatched flexibility and power. With a native ODBC interface, multimedia capabilities, large database features, and cross-platform support, DBMaker integrates multimedia and traditional database functions in an affordable, easy-to-use package.

Designed to offer high-speed performance, DBMaker is a perfect match for developers looking to build fast, compact applications. This performance is possible thanks to the integration of a native ODBC API and efficient multimedia-friendly data access routines. Since the ODBC API and multimedia handling are built right into the engine, applications have direct access to conventional and multimedia data—without the need for extra layers of software.

Multimedia Features

HIGH-SPEED ACCESS

Access your multimedia data quickly with the fast and efficient multimedia handling routines built into the DBMaker database engine. Applications have access to multimedia data without going through extra layers of software.

CHOICE OF STORAGE

Choose to store your multimedia data internally in the database or externally in their original formats. Since external files retain their original file formats, you can edit them with third-party editing tools.

POWERFUL SEARCH CAPABILITIES

Locate multimedia data using powerful full-text searching and pattern matching. Quickly find what you need without spending all day looking for it.

DATA PROTECTION FEATURES

Protect your multimedia data with the same security, reliability, and integrity features provided for conventional data. These features are available for all data stored in the database, regardless of what type of data it is.

EASY INTEGRATION

Integrate DBMaker into your multimedia application using a native ODBC API. This API is supported by most of the leading development tools, giving you the freedom to choose.

COMPACT SIZE

Keep the size of your multimedia application to a minimum with the compact footprint of the DBMaker database engine. Now you can deliver you application on the medium of your choice, not the one dictated by the size of your database engine.

Why DBMaker?

Powerful multimedia management capabilities built into the database engine allow you to efficiently store and manipulate large amounts of multimedia data including text, graphics, audio, video, and animations. The multimedia management capabilities also provide a great deal of flexibility, allowing you to store multimedia data in different ways depending on your needs.

You can store multimedia data directly in the database as Binary Large OBjects (BLOBs). This data is protected by the full spectrum of security, reliability, and integrity features provided for conventional data types. In addition, you can store your multimedia data as File Objects, which allows third-party multime-

dia tools full access to your multimedia data while keeping it under database control.

Your tables can have as many multimedia columns as you wish, and the number of rows containing multimedia data is limited only by the maximum size of the table. You can easily locate any desired data item using DBMaker's powerful full-text searching and pattern matching. This lets you concentrate on building your application instead of locating your data.

Extensive cross-platform support means you can develop and deploy your DBMaker-based multimedia application across platforms quickly and economically. Easily scale from a small single-user system on a notebook computer all the way to a large enterprise system. The compact size of the database engine adds little size, giving you more choices for delivering your application.

DBMaker simplifies development of high-performance applications with its native ODBC interface and ANSI SQL-92 support. Build your applications using a wide variety of popular development tools, including Visual C++, Visual Basic, Delphi, and AcuBench. DBMaker lets you work with the tools you already have, and doesn't restrict you to a proprietary development environment.

How Does DBMaker Work?

DBMaker can store any type of multimedia data, including document text, graphics, audio, video, and animations. You use standard SQL commands to manipulate multimedia data, eliminating the need to learn any special syntax. Access to your multimedia data is transparent in your SQL statements. DBMaker provides a flexible storage architecture for your multimedia data, giving you the choice to store it as Binary Large OBjects (BLOBs) or File Objects.

- BLOB data is physically stored in the database files. You can only access this data using DBMaker, but the same security, reliability, and integrity features available to conventional data types keep your data safe and secure. When you store your multimedia data as a BLOB, DBMaker will intelligently decide on the best method to store it. If the BLOB is small enough, DBMaker will put it together with the other data in the same record. This increases query efficiency since the BLOB is retrieved at the same time as the rest of the record. If the BLOB exceeds the maximum record size, it is stored separately. You can export BLOB data for external use using interactive SQL commands, or the ODBC interface.
- File Object data is stored as an external file. DBMaker can either store the file in a special file object folder, or link to an existing file directly. Either way this allows third-party multimedia applications to access the file, since the file retains its native file type. Simply retrieve the file name from DBMaker and pass it to the multimedia tool you are using to edit the file.

If the same multimedia data is contained in many records, DBMaker will store only a single copy and share it between records to save valuable disk space. While BLOB data can be shared between records in the same table, File Object data can be shared between any records in the database. However, from the user's point of view, there is always a dedicated multimedia item for each record. If you update a shared item, DBMaker transparently generates a new item for that record. Other records sharing that item are not changed, and other users still see the original data. This prevents any changes you make to multimedia data in one record from influencing other records.

Platform Support

- ➢ Windows 95/98
- ➢ Windows NT
- ➢ Sun Solaris (Sun Sparc)
- ➢ Sun Solaris (Intel x86)
- ➢ Sun SunOS
- ➢ Linux
- ➢ Data General DG/UX
- ➢ FreeBSD
- ➢ Hewlett-Packard HP/UX
- ➢ IBM AIX
- ➢ SCO UnixWare
- ➢ SGI IRIX
- ➢ Tatung Mitux
- ➢ Unisys SVR4

System Requirements

Windows

- ➢ 80486 (or faster) processor.
- ➢ 16MB of available memory (32MB for best performance).
- ➢ 12MB of available disk space (50MB for full installation).
- ➢ TCP/IP network protocol and supported network or dial-up adapter.
- ➢ VGA or higher display.
- ➢ CD-ROM drive.

UNIX

- ➢ 20MB of available disk space (50MB for full installation).
- ➢ CD-ROM drive.

MediaBinder

This product is an entry-level multimedia management and presentation system for single users. It combines a friendly interface for handling and presenting media data, with DBMaker for efficient data management.

Multimedia Features

SUPPORTS ALL TYPES OF MEDIA

MediaBinder lets you manage image, animation, video, audio, text, and OLE media objects.

SUPPORTS NUMEROUS FILE FORMATS

For each of the supported media types, a wide range of file formats is supported. You can view common image file formats such as JPEG and PNG. Moreover, you can play MPEG and AVI video clips, and MP3 audio files—all of which are becoming increasingly popular on the Internet.

CAPTURE MEDIA OBJECTS FROM TWAIN-COMPLIANT INPUT DEVICES

Gather media from scanners, digital cameras, and microphones. Capturing objects from external devices is simple and quick, as no extra software or configurations are required once you have installed the necessary hardware.

VIEW MEDIA OBJECT THUMBNAILS

Conveniently view all media objects in folders as thumbnails. See video clips, text, audio, and OLE objects represented side-by-side with image objects.

CREATE INTERACTIVE PRESENTATIONS

You can create interactive presentations using MediaBinder's Authoring Tool. MediaBinder lets you tailor your presentation by including all types of media objects. Play your own voice as the narrator of a story or show a clip from your favorite movie with a beautiful picture in the background.

Why MediaBinder?

MediaBinder balances functionality and ease of use. With MediaBinder, you won't waste time learning a new multimedia program that is too complex for your needs. It provides a convenient interface (that you can master in no time at all) for collecting, storing, and presenting all your multimedia data. MediaBinder lets you use explorers to organize media objects in tree views as well as windows to view objects. By putting objects into MediaBinder, you can save time and effort searching for pictures, video clips, and audio files.

More than a convenient interface for organizing and presenting media objects, MediaBinder lets you control your media data with the powerful DBMaker database management system. DBMaker not only supports full-text searching, but also safeguards your data by providing automatic crash recovery, restoration, and backup features.

There are so many ways to use MediaBinder: from creating your own song or movie collection to conducting a class. So whether you're a teacher or student, sales representative or hobbyist, professional photographer or Internet user, MediaBinder is the right program.

How Does MediaBinder Work?

MediaBinder uses the DBMaker database management system for handling media objects. With DBMaker, you can provide maximum protection for your data by storing it internally. Or you can store media objects externally so that other applications can access and update them. For internal and external management, DBMaker uses System File Objects and User File Objects, respectively. When DBMaker uses System File Objects, the data is converted from its original format into one that DBMaker can interpret so that it can directly manage the data. With External File Objects, the data is kept in its original location while DBMaker only stores the file path is used as a link to the file.

System Requirements

- Pentium (or faster) processor.
- Microsoft Windows 95/98 or Windows NT (v3.51 or higher).
- A minimum of 8MB RAM. For large amounts of data, adding more memory will improve performance.
- Enough available disk space for your media data.
- High Color display setting (recommended).
- Sound card (optional).
- TWAIN-compliant input device, such as a scanner or digital camera (optional).
- Video capture board and Video for Windows (optional).

MediaServer

MediaServer is CASEMaker's enterprise multimedia management and presentation solution. In addition to having all the functions of CASEMaker's entry-level MediaBinder application, MediaServer provides streaming technology, image processing, enhanced file management features, and a client/server architecture so that multiple users can access media objects on the DBMaker database server.

Multimedia Features

PLAYS STREAMING VIDEO

Built on the DBMaker database management system and using leading-edge iStreamer technology, MediaServer is your complete solution for retrieving, playing, and managing streaming videos.

PROCESS YOUR IMAGES

MediaServer includes a wide range of powerful image editing functions. Transform the picture by changing the colors, background appearance, and contours.

SUPPORTS NUMEROUS FILE FORMATS

For each of the supported media types, a wide range of file formats is supported. You can view common image file formats such as JPEG and PNG. Moreover, you can play MPEG and AVI video clips, and MP3 audio files—all of which are becoming increasingly popular on the Internet.

CAPTURE MEDIA OBJECTS FROM TWAIN-COMPLIANT INPUT DEVICES

Gather media from scanners, digital cameras, and microphones. Capturing objects from external devices is simple and quick, as no extra software or configurations are required once you have installed the necessary hardware.

VIEW MEDIA OBJECT THUMBNAILS

Conveniently view all media objects in folders as thumbnails. See video clips, text, audio, and OLE objects represented side-by-side with image objects.

CREATE INTERACTIVE PRESENTATIONS

You can create interactive presentations using MediaServer's Authoring Tool. MediaServer lets you tailor your presentation by including all types of media objects. Play your own voice as the narrator of a story or show a clip from your favorite movie with a beautiful picture in the background.

Why MediaServer?

More than just a simple media management and presentation system, MediaServer is a client/server solution for maintaining media objects among multiple users. MediaServer is highly scalable—from a few workers to all members of an organization. MediaServer provides a complete view of all files on your local computer and networked drives through an explorer and thumbnail interface. This helps you to find and manage media objects throughout your organization with minimal effort.

Like MediaBinder, MediaServer lets you control your media data with the powerful DBMaker database management system. DBMaker provides media data with data integrity and security controls as well as an engine for full-text searching. With MediaServer searching is intuitive: enter keywords or Boolean expressions and DBMaker quickly retrieves the results. DBMaker also lets you safeguard your data with automatic crash recovery, restoration, and backup features.

The integration of iStreamer makes MediaServer even more alluring. iStreamer uses a distinctive technique to stream media, enabling you to *scan videos beginning-to-end while they are streaming to you*. In addition to this unique preview

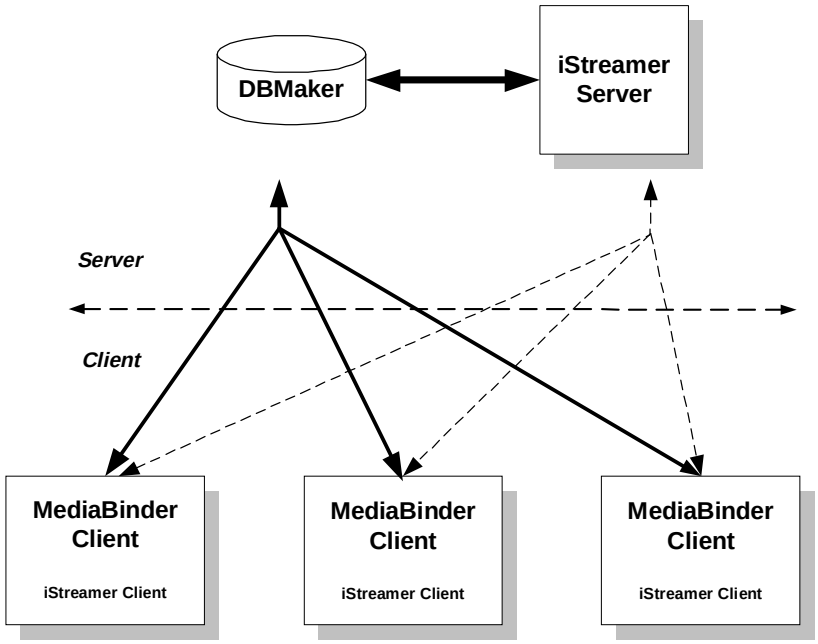
feature and VCR-style functionality, iStreamer supports MPEG ensuring you view the highest quality of streaming video available.

Finally, MediaServer provides the friendly interface to view and manage your multimedia data. The MediaServer multimedia management solution ensures that you never lose a file. With MediaServer, retrieving, viewing, playing, and managing media has never been faster or easier.

How Does MediaServer Work?

MediaServer's client/server architecture lets each user on a local area network run a MediaBinder client program that connects to a DBMaker database server. The database server stores and manages media objects centrally while the client requests media data from the server. When video data is requested, the video information is passed to the MediaBinder client via the iStreamer server. The MediaBinder client, acting as an iStreamer client, previews frames while data is streamed from the server.

MediaServer Architecture



System Requirements

Server	Client
➢ Pentium (or faster) processor. ➢ Windows NT (v3.51 or higher). ➢ A minimum of 8MB RAM. For large amounts of data, adding more memory will improve performance. ➢ Enough available disk space for your media data. ➢ Sound card (optional). ➢ TWAIN-compliant input device, such as a scanner, or digital camera (optional). ➢ Video capture board and Video for Windows (optional).	➢ The client has the same system requirements as the server, except it can run on Microsoft 95/98 as well as Windows NT (v3.51 or higher).

iStreamer

iStreamer's unique streaming technology enables users to preview video files while they stream to your desktop. You can also scan videos using fast-forward and fast-reverse VCR-style operations without the need for additional files for each video. In addition, iStreamer supports MPEG, the most prominent digital video and audio standard on the planet.

For developers seeking to add streaming media technology to their applications, iStreamer is the perfect solution. With iStreamer API technology, you can painlessly develop *rich streaming multimedia* client/server applications for intranets or other high-bandwidth networks.

The combination of MPEG support and feature-rich functionality also makes iStreamer ideal for broadband Internet Service Providers wanting to take their customers to the next level. On broadband ISP infrastructures, iStreamer delivers a high-quality streaming media experience that transforms your service into an advanced broadband media delivery platform.

Multimedia Features

PREVIEW FUNCTION

Preview videos before committing to watching them. iStreamer's unique streaming technique enables you to preview video files while they stream to your desktop.

VCR-STYLE FUNCTIONS

Scan videos using fast-forward and fast-reverse VCR-style operations. With iStreamer technology additional fast-forward and fast-reverse files for each video are unnecessary.

MPEG SUPPORT

Supports *the* standard for digital video and audio.

SMOOTH INTEGRATION WITH MULTIMEDIA DATABASES AND MEDIA MANAGEMENT SOFTWARE

Integrate iStreamer with multimedia databases and media management software for increased performance and usability. Databases can provide powerful searching capabilities and media management can provide a friendly interface to view and manage your files.

Why iStreamer?

Prepare to experience real-time multimedia on intranets and high-bandwidth networks using iStreamer's leading-edge streaming technology. Forget about long download times—with iStreamer you can preview even large multimedia files almost immediately. In addition, iStreamer supports the MPEG standard compression format and since each client handles its own VCR functions, iStreamer is extremely scalable.

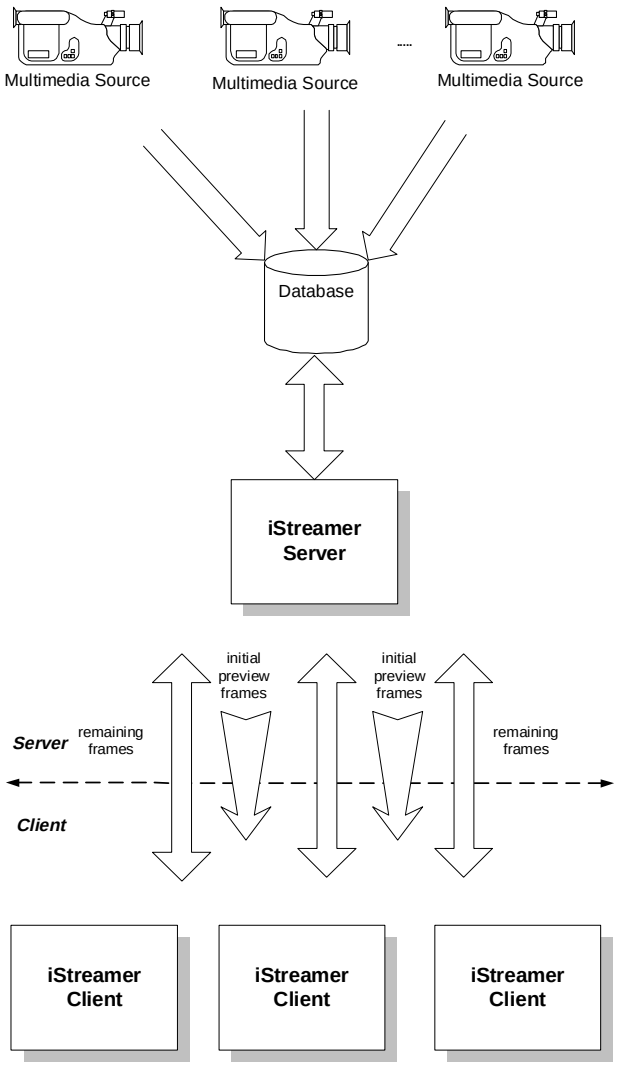
How Does iStreamer Work?

iStreamer's core technique for streaming multimedia is simple: iStreamer clients download non-adjacent video frames from a source for quick previewing from beginning to end. While iStreamer clients are previewing, the iStreamer server continues streaming data to clients, interleaving the missing source frames to provide a silky-smooth, high-quality viewing experience.

These non-adjacent video frames also facilitate VCR-style operations such as fast-forward and fast-reverse, eliminating the need for additional fast-forward and fast-reverse video files. Since these frames are already stored locally on the

iStreamer server, no mapping is required to synchronize fast-forward and fast-reverse files and the actual video streams. The result: iStreamer clients can independently control streamlined VCR-style operations and system performance is improved.

iStreamer Architecture



Intranet or high-bandwidth network

System Requirements

SERVER	CLIENT
➢ Pentium 200 MMX (or faster) processor.	➢ Pentium 200 MMX or higher processor.
➢ Windows NT 4.0 with Service Pack 3.	➢ Windows 95/98/NT 4.0 with Service Pack 3.
➢ 64MB RAM (for additional clients, more RAM will improve performance).	➢ 64MB RAM.
➢ 30MB of available disk space for initial installation and sufficient space to store all movie files.	➢ 50MB of available disk space for initial installation and sufficient space to temporarily store movie files during playback.
➢ TCP/IP network protocol.	➢ Sound card.
	➢ Speakers.
	➢ TCP/IP network protocol.

WebBinder

WebBinder is CASEMaker's solution for managing multimedia objects on a Web server. WebBinder provides three integrated products and technologies that let you easily maintain multimedia content:

- MediaBinder is an easy-to-use multimedia management and presentation system.
- DBMaker is a powerful multimedia database management system.
- DBMaker Application Server is a middleware agent that allows your Web server to seamlessly access the DBMaker multimedia database management system.

Multimedia Features

EXTENSIVE MULTIMEDIA MANAGEMENT FUNCTIONS

WebBinder lets you capture, view, and organize all kinds of multimedia objects (including text, graphics, and video images) for your Web server.

HIGH-PERFORMANCE DATABASE ACCESS

The DBMaker Application Server efficiently handles even large numbers of requests from your Web server to the multimedia database. This technology removes the limitations inherent in using CGI programs to access your database.

FLEXIBLE CLIENT/SERVER ARCHITECTURE

Using MediaServer, multiple content developers can manage media objects via a network or corporate intranet.

VERSATILE APPLICATION DEVELOPMENT

WebBinder's transparent operation, scalability, and high performance makes it perfect for all types of Web site applications—from personal pages to large corporate sites.

Why WebBinder?

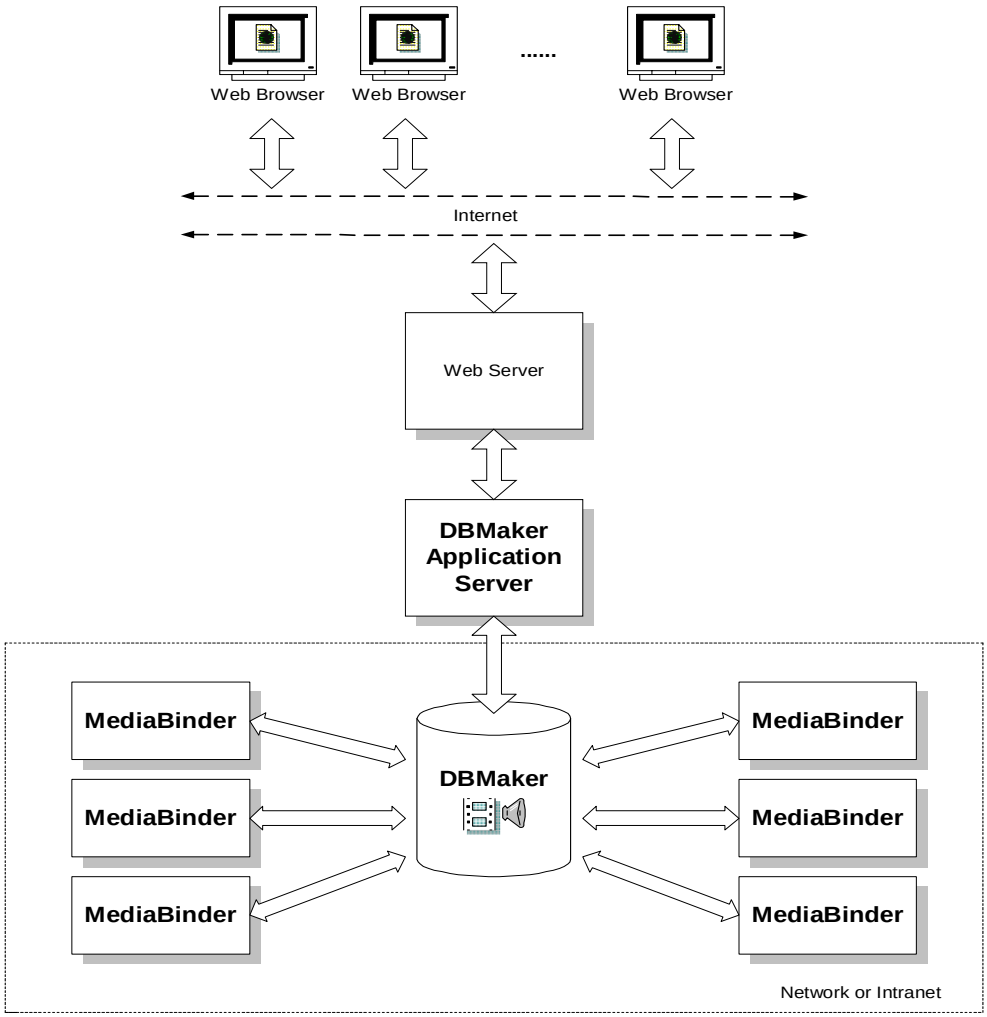
WebBinder is a low-cost, integrated solution that greatly reduces the effort of maintaining multimedia objects on a Web site. By using WebBinder to automatically maintain all your multimedia content, your Web maintenance chores are greatly simplified.

How Does WebBinder Work?

WebBinder's operation is virtually transparent. After content developers use MediaBinder to organize multimedia objects in the database server, the DBMaker Application Server provides the Web server with automatic access to the database. Updating the multimedia content on your Web server is as easy as refreshing the display.

WebBinder Architecture

The following graphic illustrates the WebBinder client/server architecture. Multiple content developers can use MediaBinder clients to manage media objects on the Web server.



System Requirements

Refer to system requirements for MediaBinder and DBMaker earlier in this document. In addition, you will need a Web server.