



Cosminexus

uCosminexus
DocumentBroker

Increasing business value by sharing and applying company documents

V8

Manage company documents both properly and securely. Improve work efficiency and satisfy all compliance requirements.

You can share the latest documents within restricted groups of people in your company without fear of tampering.

You can quickly obtain necessary documents anytime, anywhere.

The ever-growing volume of company documents leads to dispersed information that becomes more and more difficult to manage. Our document management base, uCosminexus DocumentBroker, resolves such problems by building a document management environment in which you can easily register, manage, and use documents.

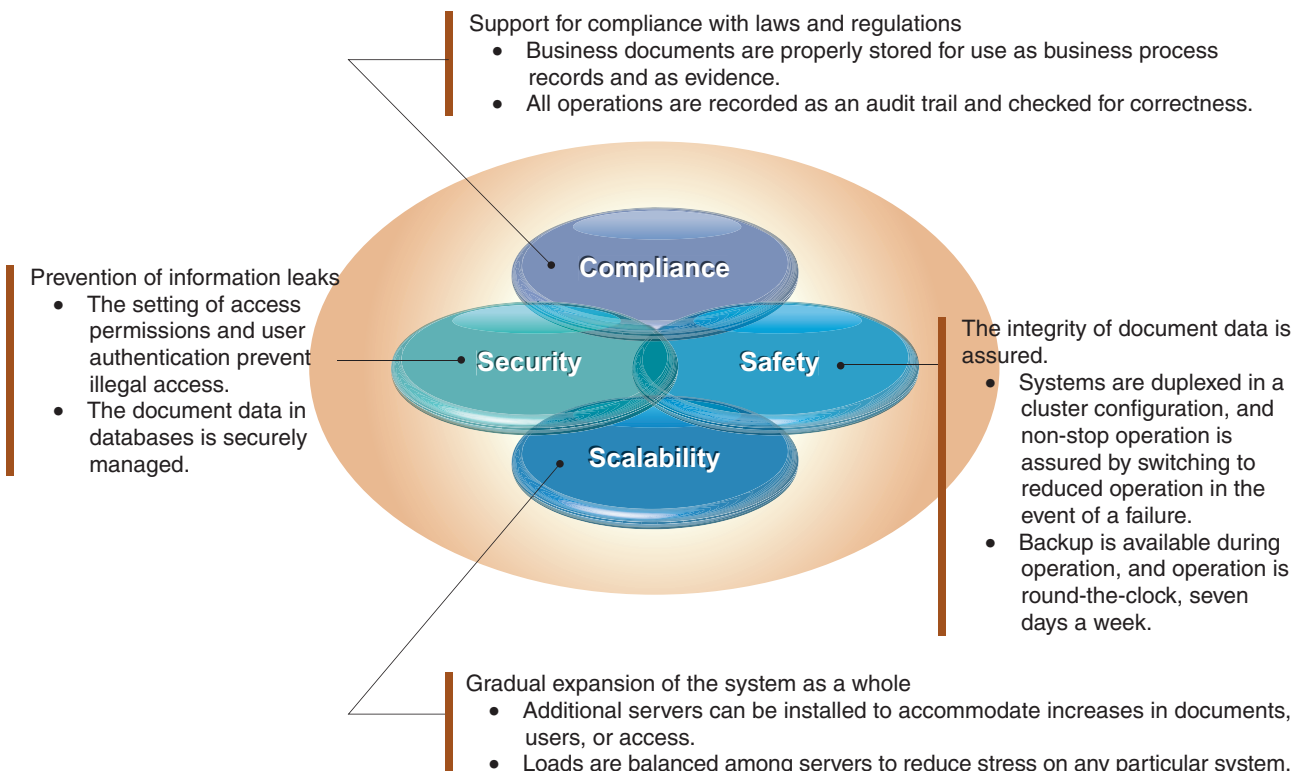
uCosminexus DocumentBroker system helps you share information within an organization while also providing extensive search and reference functionality that supports your use of that information.

uCosminexus DocumentBroker also provides functionality for setting operating permissions and performing log audits as protective measures against information leaks, tampering, and other risks inherent in handling company documents.

With uCosminexus DocumentBroker, you can record who did what and substantiate the lawfulness of business actions.

Deploy uCosminexus DocumentBroker to create a document management environment that is a step ahead, and let it help you improve work efficiency and maintain business reliability.

uCosminexus DocumentBroker creates a risk-resistant document management environment that is also adaptable when changes occur.



You can select a system model that matches the characteristics and needs of your business.

Build a document management system matching the characteristics of your business

uCosminexus DocumentBroker base framework

P3 - P6

With the base framework, you can create a document management system tailored to your unique business conditions. uCosminexus DocumentBroker provides a variety of functions, and can interact with your existing business systems, enabling you to create a unique document management system that meets all your business needs.

Use our high-performance document management application

uCosminexus DocumentBroker Version 3 Standard GUI

P7 - P8

This application is packaged with all the functionality necessary to manage documents. Because Standard GUI links easily with other systems, and you can easily change window definitions, you can create a core document management system simply and quickly.

Create a document management environment simply and quickly

DocumentBroker Version 3 Smart Document Management DocumentBroker Version 3 Document Management for Business Compliance

P9

These applications are all-in-one packages that include batch installation and setup functions. With them, you can create and operate a system without technical expertise or complex system designs. The packages also feature tools that execute daily operations and management tasks. For general document management, use Smart Document Management. For the management of documents necessary for meeting compliance requirements, use Document Management for Business Compliance.

The SOA platform Cosminexus

Cosminexus is a platform that enables you to systematically apply SOA to different types of business applications, including core business applications. Our document management base, uCosminexus DocumentBroker, is one of the content management functions of Cosminexus, and can work closely with other family products to create a system featuring superb reliability and extensibility.

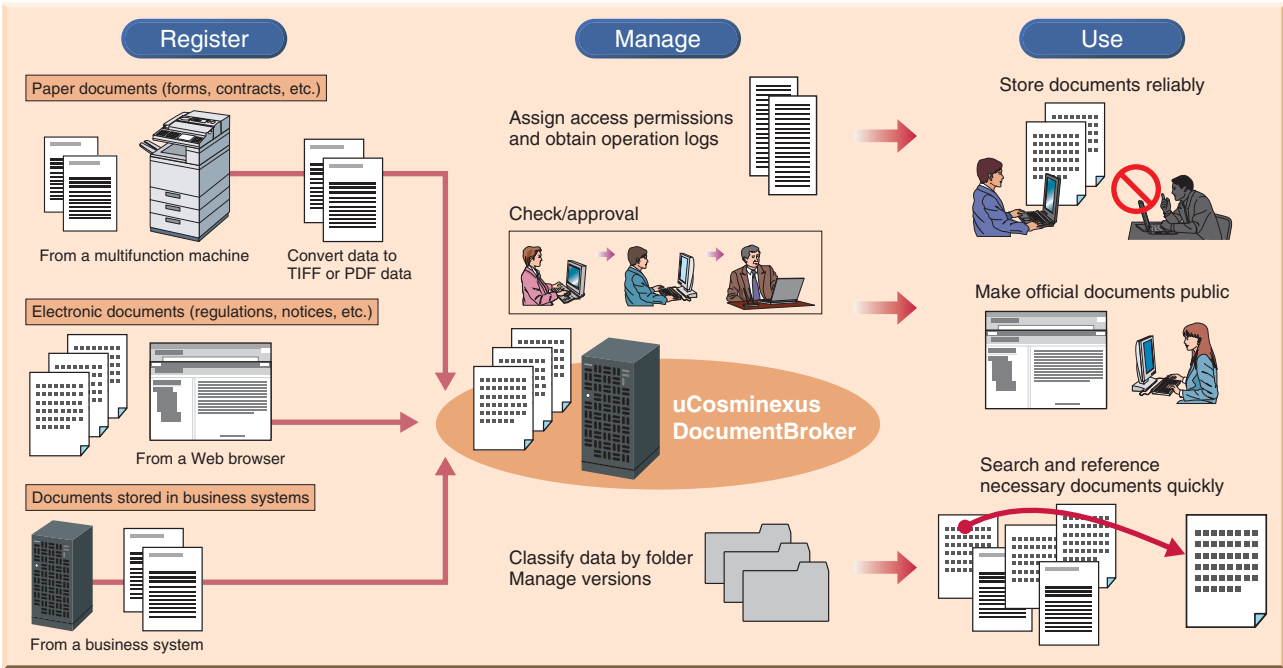
Cosminexus

uCosminexus DocumentBroker (base framework)

Create a document management environment ideally suited to your type of business

With uCosminexus DocumentBroker, you can create an easy-to-use system customized to the characteristics of your business, workflows, and methods of document management. Use the versatile uCosminexus DocumentBroker functions directly or link uCosminexus Document Broker with existing business systems to create unique document management applications that best serve your business scenarios.

Example of a document management environment you can create with uCosminexus DocumentBroker



Creation of applications in a Web environment

You can easily develop Web applications that satisfy business requirements

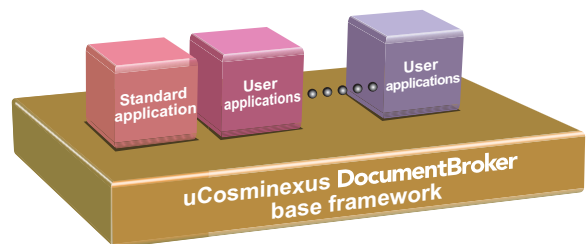
uCosminexus DocumentBroker offers a Java™ interface for developing Web applications. You can use this interface to create unique user applications that are tailored to your business requirements and processing flows. You can add job-specific categories, configure links from one document to another, and set up linkage with existing business systems. Once you have created an application, run it on our ultra-reliable Web application server, uCosminexus Application Server.



Multi-application

Registered documents can be applied from a different perspective

You can run multiple applications concurrently on the uCosminexus DocumentBroker base framework. You can also configure windows for each job, such as windows for registering documents, windows for administrators, and windows used for referencing. Moreover, you can prepare a different set of windows for each department such as windows for department A and windows for department B. In this way, the same documents can be used over and over again for different purposes, leveraging your intellectual assets.



uCosminexus DocumentBroker (base framework)

Document search

You can search for required documents from various viewpoints.

You can run efficient, advanced searches by combining search functions, including those for full-text search (searches for a specific keyword), attribute search (narrows down the number of documents in a search), and natural language search (searches for sentences and documents that contain a specified keyword).

Since you do not need to register the search words, the work involved in creating and maintaining dictionaries is eliminated.

■ Full-text search

You can quickly and accurately search for any word. You can also perform a full-text search on several types of application data*.

■ Attribute search

You can perform a search using not only basic attributes such as the document name and creation date that are set for each document but also attributes (such as the creator and department) that you add to suit the task.

■ Natural language search

You can search for documents that contain ideas (details) similar to a specified sentence or document. Even if you cannot think of a suitable keyword, this function enables you to quickly obtain documents containing the required information.

*For details, see page 5, "Applicable applications."

Document management

You can manage collected documents using various methods.

DocumentBroker has a wide range of document management functions, so it can accurately manage an organization's knowledge in a format that is easy to use.

■ Folder classification

You can bring together multiple documents having related contents into one folder and manage them.

■ Document attribute function

You can assign attribute information to documents and folders. You can select numeric type and string type attribute values and freely specify only the required number of attribute values.

■ Version management

You can save the version of a document. DocumentBroker also supports configuration management that summarizes the status of each document within a folder at the specified time and manages a history of the statuses.

■ Registration with a multifunction machine

You can convert a printed document to an electronic document in much the same way as a copier copies an image, and then register the document.

■ Multi renditions

You can manage documents created in different data formats but having the same contents as a single document. This means that you can extract a document in the data format suited to the mode of use (such as creator or reader).

■ Check-in/Check-out

This function reserves write permission for the version before extracting a document and then prohibits any user other than the user who extracted the document to overwrite the document. It can thus prevent duplicate update by another user.

■ Multi file

Since DocumentBroker enables you to manage multiple files as a single document, you can batch-register and batch-extract multiple files that make up a document.

■ Reference relation between documents

You can associate two or more different documents and manage them. This is useful when, for example, you want to associate and manage a paper and its bibliography.

Access control

This function allows you to set detailed usage permission for each document and folder.

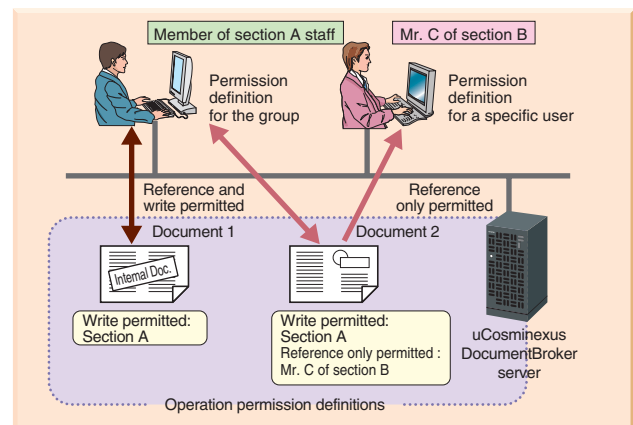
DocumentBroker provides a user authentication function that uses a directory service. You can also configure detailed access permissions to prevent illegal access and information leaks.

■ Creating access permission

For each document and folder, you can set permission (including reference permission, write permission, delete permission, and version operation permission) for operating attribute information and documents themselves. You can set permission for any user or group. DocumentBroker also has a detailed secure process for changing access permission and sharing access control information.

■ Search using access control

The search results list displays only the document names and folder names for which the user has reference permission. The internal programs of uCosminexus DocumentBroker carefully control document management and user management, so you can confidently manage documents whose existence you do not want to disclose to non-relevant parties.

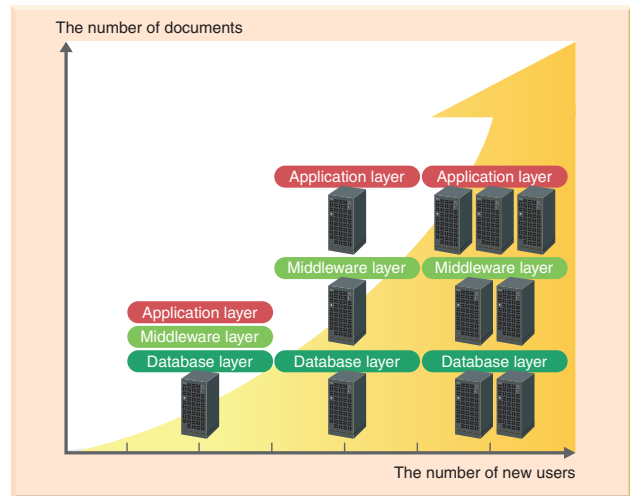


uCosminexus DocumentBroker (base framework)

Multi-server

The scale of the system can be expanded in stages

If the volume of documents and the number of transactions increase because of the increased number of users over time, the additional volume can be handled by adding another server. In this case, you can balance the load between multiple servers. By introducing this system for one department initially and then expanding it along with the business expansion, you can continuously operate this system as a large-scale (terabyte-scale) system that will cross multiple departments in the future. In addition, this system employs a duplex-system method to perform fallback operation if a failure occurs, thus realizing a 24 x 7 production environment.

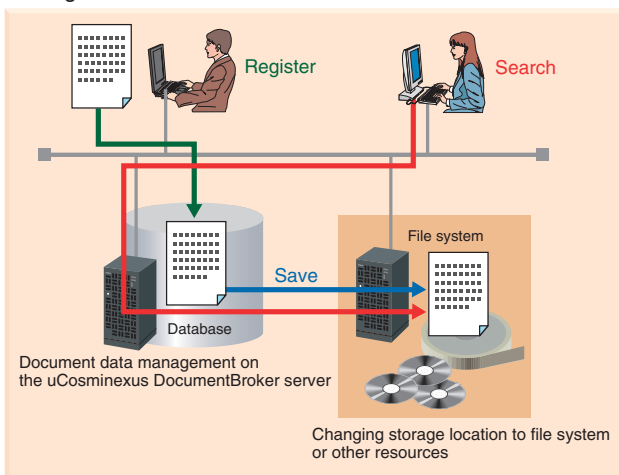


Long-term storage

The location in which documents are stored can be changed depending on how frequently they are accessed

There are some documents that you need to keep for a long period of time, regardless of how seldom they are used or referenced by the long-term storage and management. In this case, you can reduce the database size and operating costs by extracting the actual data from the database and putting it into the file system or other resources. Because the path of the location in which the extracted data is stored is managed in the original database, you can access the extracted data in the same way as usual. You can prevent the actual data from being tampered with by storing it into a WORM (Write Once Read Many) device.

Document data management by the long-term storage and management



Rich utilities

The broad range of functions supports effective use of documents

uCosminexus DocumentBroker has a full range of utilities that further enhance the value of collected documents. These utilities include functions for batch-registering and batch-extracting documents, a function for automatically converting the document format, and a function for analyzing the access log.

Batch registration and batch extraction of documents

You can batch-register multiple documents to a server running uCosminexus DocumentBroker while being aware of the folder structure. You can also batch-extract multiple documents being managed by the server.

Batch registration of index for full-text search

You can use uCosminexus DocumentBroker for batch-registering an index for a full-text search. This means that you can automatically extract various text data such as Microsoft® Word data and PDF data, and register it in the index for a full-text search.

Applicable applications and file formats (version)

- RTF(1.3/1.4/1.5)
- Microsoft® Word(95/97/98/2000/2002/2003/2007),
- Microsoft® Excel(95/97/2000/2002/2003/2007),
- Microsoft® PowerPoint(95/97/2000/2002/2003/2007)
- PDF(1.2, 1.3, 1.4, 1.5, 1.6, 1.7)
- OASYS(5/6/7/8/2002)
- DocuWorks(4/5/6)
- Lotus 1-2-3(R5J/97/98/2000/Millennium Edition)

Creation of rendition objects

You can batch-convert registered documents created with various types of application software to a single PDF file. After conversion, you can manage the files using the multi-rendition function.

Log editing

You can output user access statuses and reports that analyze, classify, and tabulate program processing details. This means that you can monitor illegal extraction.

uCosminexus DocumentBroker (base framework)

Case studies for user application development

Create and install an optimized document management environment customized for your business.

1 Enhanced document security

Restricting operations on downloaded documents to prevent leaked information

Objectives

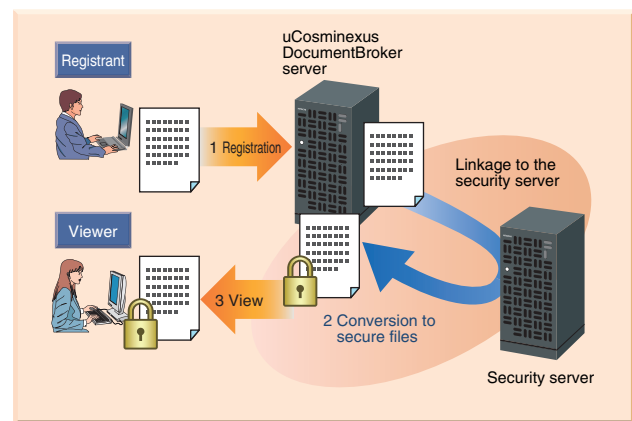
- Storage of document files according to access permissions
- Restricted user operation for document files

Proposed system

Linkage to a security server is provided. In addition to setting access permissions for the document management system, you can set various operation restrictions (such as for viewing duration, duplicating files, making hard copies, and printing) for document files to provide security management for documents even after they have been removed from the system.

Effects of introduction

- Files can be provided more securely, enabling even confidential documents to be managed and used in the document management system.
- Auditing is better supported as operation logs can be obtained after documents have left the system, enabling information to be provided faster and more reliably.



*This server enables you to create PDF documents set with your company's security policies. By using this server, you can increase the level of security for the documents handled in your business.

2 Application storage and management

Streamlining operations and enforcing compliance

Objectives

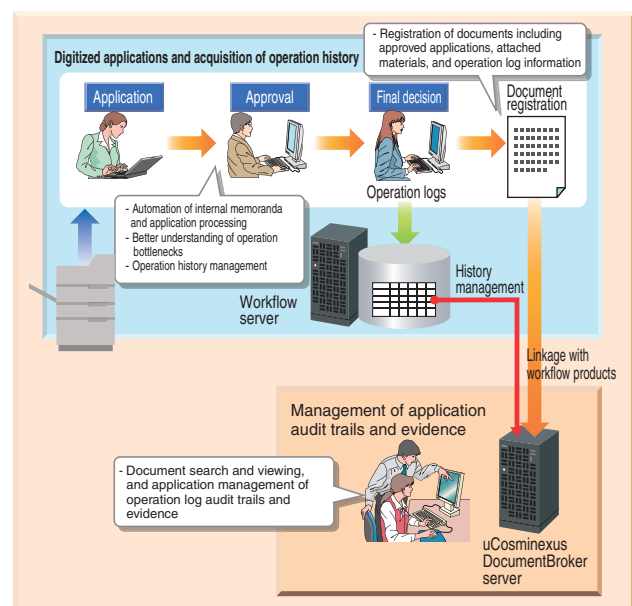
- Creation of audit trails to certify operation legitimacy
- Linked management of applications and attached materials

Proposed system

Linkage to a workflow product enables storage and management of large volumes of operation processing records. Operation processing records can be instantly searched and viewed for reuse and auditing of information in records. In addition to streamlining application processes and improving operation, this enables a robust IT infrastructure to be set up to support internal control and compliance.

Effects of introduction

- Documents can be kept as records after workflow processing.
- The legitimacy of internal memorandums and the application processes can be verified.
- Search and view are streamlined to enable rapid publication of information.



uCosminexus DocumentBroker Version 3 Standard GUI (standard application)

Quickly create a compact system that includes only the functions necessary for general document management

This application provides as standard a variety of document management functions that help you quickly set up a document management system.

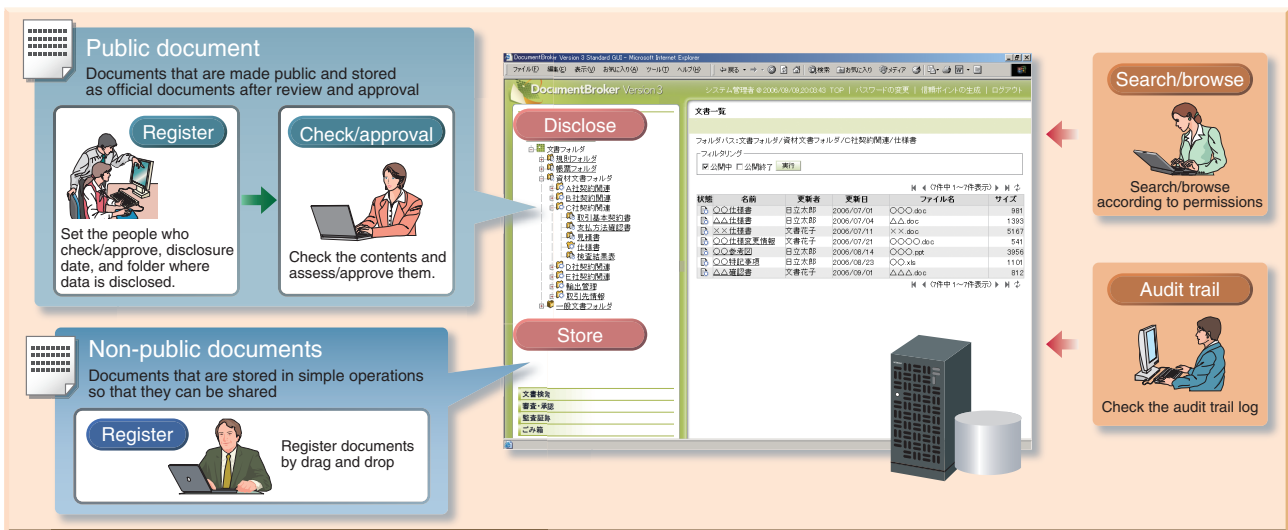
Business documents are business assets that the extensive Standard GUI functions help you manage securely and efficiently over a long period of time.

Linking Standard GUI to other systems is easy. You can also use Standard GUI to change window definitions easily.

Manage a variety of document types properly with simple operations

Operation in the Standard GUI is smooth. For example, you can use the folder tree in the Standard GUI window in your Web browser to display a list of documents, and then click a folder or a document to display a menu. With Standard GUI, you can manage important documents, such as work rules and contracts, that are created infrequently both properly and flexibly. You can also use Standard GUI as a base for assuring the distribution of information and the lawful execution of business actions.

Example of using uCosminexus DocumentBroker Version 3 Standard GUI

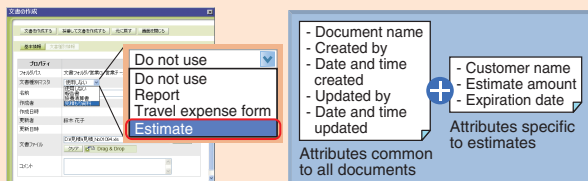


Master functions by document type

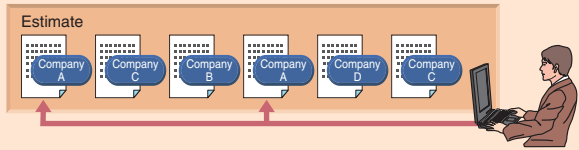
You can quickly find the documents you want by setting detailed attributes.

In addition to the attributes common to all documents, you can set and manage unique attributes according to document type and purpose. For example, for an estimate, you can specify customer name, estimate amount, expiration date, and other attributes. Specifying these attributes simplifies the process of finding a document in your search.

Select [Estimate] as the document type and specify the type-specific attributes.



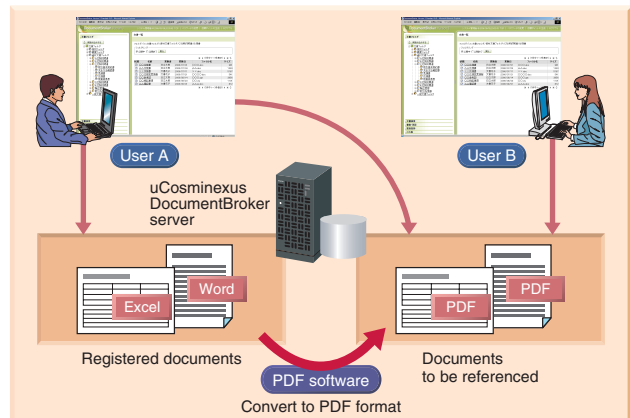
When you specify "company A" as the value for the customer name attribute, you can search only for the estimates for company A.



PDF-format reference function

You can reference Word and Excel documents in PDF format.

DocumentBroker can automatically convert Word and Excel documents to PDF data, and then manage the converted documents as subordinate documents of the original documents. You can control access to files by assigning different file access permissions to users. For example, you might want to give users with update permission access to Word or Excel documents, and give users with only reference permission access to PDF documents.



■ uCosminexus DocumentBroker Version 3 Standard GUI (standard application)

■ uCosminexus DocumentBroker Version 3 Standard GUI functions

Management	Attribute Management	Enables you to manage documents with attributes such as title and date of creation. It also enables you to sort or search documents by attribute.
	Folder classification	Enables you to manage a set of documents in a folder. There are two folders; a public document folder that stores the assessed/approved documents, and a document folder that stores general documents.
	Version Management	Stores document versions. With this function, you can display a list of versions as an update history and obtain previous versions of documents.
	Access control	Enables you to add access permissions to documents and folders, which control read/update/delete operations on documents and folders. An access permission can be assigned by individual, organization, or group.
	Document type master	Enables attribute item sets to be defined as a document type, for each document purpose (such as for reports, specifications, and manuals).
	Document numbering	Enables documents to be numbered according to specified rules.
	Document archiving	Archives registered documents in the Hitachi Content Archive Platform storage system.
Use of document	Document registration	Enables you to register the main file and any associated files for a document. You can select the target document in a dialog box or else use a drag-and-drop operation to move the target document from a local folder.
	Referencing	Enables you to reference the content or attribute values of a document.
	Moving and copying of documents	Enables you to move or copy documents.
	Review and approval	Enables you to review and approve documents in the system. You can configure the settings so that an e-mail is sent to the recipient (reviewer or approver) when you issue a request for review or approval. The approved documents are registered in the public documents folder.
	Electronic signature/ time stamp*1	Enables you to add an electronic signature and time stamp during the approval process to strengthen the legitimacy of the target document.
	Document publication	Enables reviewed and approved documents to be automatically registered in the public documents folder, to be treated as public documents.
	PDF-format referencing*2	Enables you to configure the settings for referencing Word and Excel documents in their PDF version.
	Search and retrieve	Enables you to perform full-text search, attribute search, narrowed search by folder, and newly-arrived documents search.
	Document linking	Enables you to associate documents by using links. The linked documents can be listed.
	Document registration from a linked multifunction machine	Enables you to convert paper documents into image data from a multifunction machine and then register the documents as electronic documents.
Others	Document URL acquisition	Enables you to copy the URL of a document to the Clipboard. You can directly access a document specified in an e-mail by clicking its URL in the e-mail.
	Recycle Bin	Deleted documents are stored in a recycle bin. When deleted from the recycle bin, the documents are completely deleted from the document management system.
	Audit trail	Logs who did what to the system. You can view the collected logs and use them as evidence in audits.
	Commands for registering documents and creating folders	These commands enable you to register folders and documents at one time.
	Folder capacity limit	Enables you to specify an upper limit for the amount of available space in the folder at the highest level.

*1 When using an electronic signature, you need to have a signature client library and signature history server.

When using the time stamp, you need to have a separate time stamp related product in addition to a signature client library and signature history server.

*2 Additional PDF software is required.

■ uCosminexus DocumentBroker Version 3 Standard GUI Development Kit (optional)

This development kit is a collection of APIs for developing Java programs that connect uCosminexus DocumentBroker Version 3 Standard GUI and other systems. You can use the kit to develop programs for registering, retrieving, operating, and managing documents.

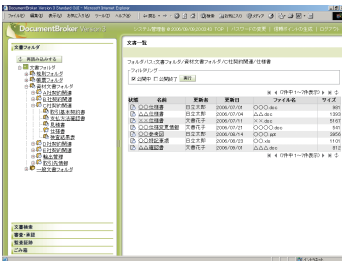
DocumentBroker Version 3 Smart Document Management DocumentBroker Version 3 Document Management for Business Compliance (packaged programs)

Create a document management system containing your business expertise with all-in-one packages

Smart Document Management and Document Management for Business Compliance are all-in-one packages with document management capabilities embodying the same quality and functionality provided by uCosminexus DocumentBroker. Using Smart Document Management or Document Management for Business Compliance, you can create, operate, and manage a document management system without technical expertise, greatly reducing the workloads of your system administrators.

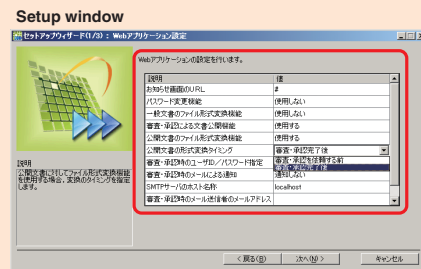
Standard document management package: DocumentBroker Version 3 Smart Document Management

Smart Document Management offers a version management function that chronologically manages documents on your file server, ensuring that the latest documents, often buried on the file server, are adequately managed. Furthermore, the document check-in/checkout function prevents duplicate updating by another user. In addition, you can explicitly manage the review and approval status by specifying unique attributes for documents for particular jobs. Smart Document Management also offers functions for preventing information leaks and tampering that also include functions that enable users with only reference permission to view PDF files. Using Smart Document Management, you can create and soon use a document management environment that includes these versatile functions.



Examples of how you can use windows

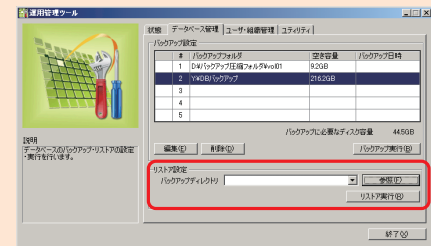
- Use the dedicated wizards to easily install and set up necessary programs. During setup, you select only the size of your database and the values for just eleven items. That is all that is necessary for you to be able to use your system.



Select a value from a pull-down menu.

- Use windows to perform daily operations and management. The tools provided for system administrators are easy to use.

Operations and management window
Easily perform daily operations and management, including system startup and shutdown, registering users and organizations and making subsequent changes, and database management (backup and restore).

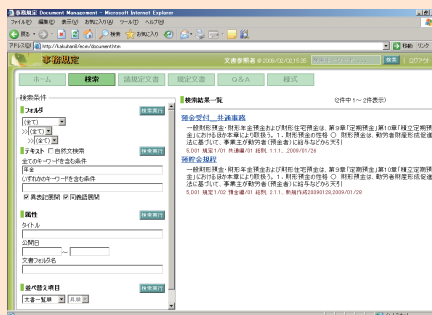


Select a backup location by clicking [Browse].

Office manual creation and viewing package: DocumentBroker Version 3 Document Management for Business Compliance

Document Management for Business Compliance offers functions for creating and managing office manuals and other documents used for maintaining business policies -- for example, office regulations, work manuals, forms, and guidance in question-and-answer form. The documents are managed in a highly reliable database to simplify the burden of document revision.

- You can quickly find the documents you want from easy-to-understand menus adapted to a particular job and by using the package's extensive search functions.
- You can convert existing Word documents to PDF or HTML (supported in the next version) for viewing.



Relationship between functions and products

Function name		Description	Product name
Document management	Basic function	Registration of document, Version management, Multi-rendition, Multi-file management, Folder classification, Configuration management, Structured document management, Exclusive access control, Reference relation between documents, Attribute management, Attribute search	uCosminexus DocumentBroker Server Version 3
	Operating functions	Access control, User authentication, Access log analysis/classification/taking statistics, Processing analysis/classification/taking statistics, Long-term storage and management, Multi-server function, Multi-application function	
Search and retrieve		Full-text search	HiRDB Text Search Plug-in Version 8
		Text extraction	Document Filter for Text Search Version 3
		Creation of index for full-text search, Registration of index for full-text search	uCosminexus DocumentBroker Text Search Index Loader Version 3
		Natural language search	HiRDB Text Search Plug-in Conceptual Extension Version 7
Registration from a multifunction machine		Registration of paper documents from a multifunction machine and automatic registration of received faxes	DocumentBroker Image Registration
		Classification of registered-document destinations based on form type, attribute settings, and document classification	DocumentBroker Image Registration for Character Recognition
Batch registration		Batch registration, batch extraction	uCosminexus DocumentBroker Object Loader Version 3
		Parallel execution of batch registration	uCosminexus DocumentBroker Object Loader High-end Option Version 3
Creation of rendition objects		Automatic conversion to PDF format	uCosminexus DocumentBroker Rendering Option Version 3*
Application development		Provision of Java C++ class libraries and application execution environments	uCosminexus DocumentBroker Development Kit Version 3
		Provision of application execution environments	uCosminexus DocumentBroker Runtime Version 3
User authentication		User or group management, access control	Sun™ Java System Directory Server, Microsoft® Active Directory®

*Additional PDF software is required.

Operation Environment

AIX 5L, Windows Server® 2008, Windows Server® 2003, Windows® XP Professional (for development environments)
For details about the OSs that support the above products, please visit the uCosminexus DocumentBroker Web site or contact us.

Application programs

Product name	Purpose	Main functions
uCosminexus DocumentBroker Version 3 Standard GUI	Management of documents in a folder tree	Document management (attributes, classification of data by folder, versions, access permissions, and inter-document links), searches, review, approval and publication of documents, data conversion to PDF, audit trails, archiving, electronic signatures, and time stamps*
uCosminexus DocumentBroker Version 3 Standard GUI Development Kit	Development of Java programs for manipulating documents registered in uCosminexus DocumentBroker Version 3 Standard GUI	Java class libraries and methods (for creating documents, performing property and access permission operations, and running searches)

*A signature client library and a signature history server are required to use electronic signatures. In addition to a signature client library and a signature history server, time stamp-related products are required to use time stamps.

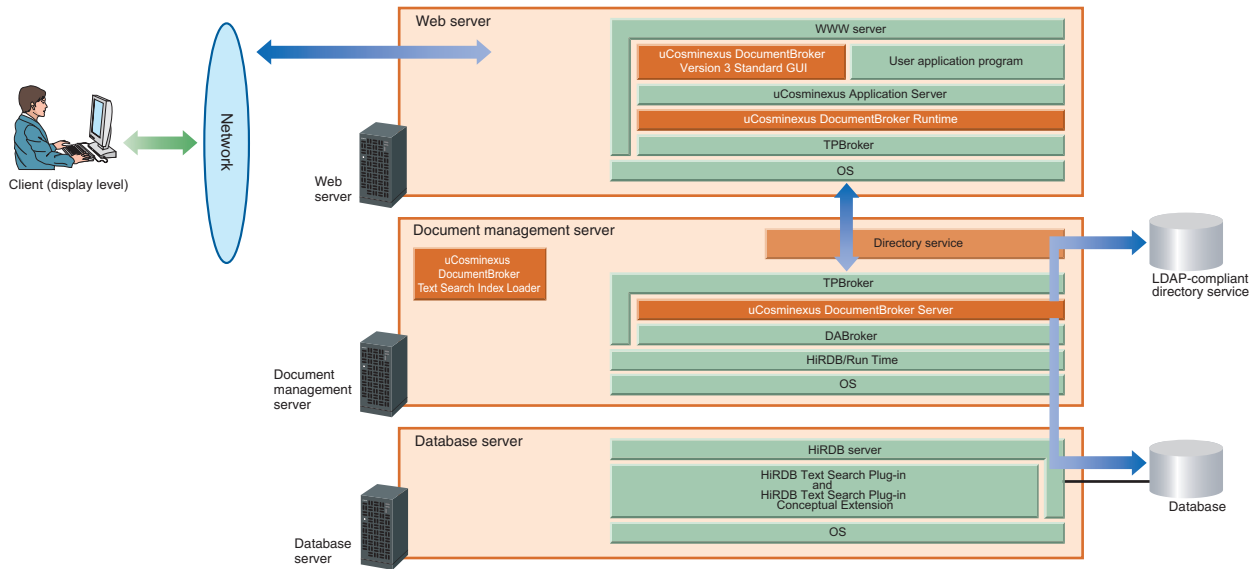
Packaged programs

Product name	Purpose	Main function
DocumentBroker Version 3 Smart Document Management	Management of documents in a folder tree	Document management (attributes, classification of data by folder, versions, access permissions, and inter-document links), searches, review, approval and publication of documents, conversion to PDF, audit trails, quick setup, and operational and management support
DocumentBroker Version 3 Document Management for Business Compliance	Creation, management, searches, and viewing of regulations and manuals	Registration, publication, revision, abolition, and management of office manuals, question-and-answer documents, forms and notices; drafting, review, approval and withdrawal of work items; distribution of e-mails, searches, quick setup, and operational and management support

Operation Environment (runtime environment for both application programs and packaged programs)

Windows Server® 2008, Windows Server® 2003, Windows® XP Professional (for development environments)
For details about the OSs that support the above products, please visit the uCosminexus DocumentBroker Web site or contact us.

System configuration diagram



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 Microsoft is a registered trademark of Microsoft Corp. in the U.S. and other countries.
 Microsoft SQL Server is a product name of Microsoft Corp.
 Microsoft Internet Explorer is a product name of Microsoft Corp.
 Microsoft Word is a product name of Microsoft Corp. in the U.S. and other countries.
 Excel is a registered trademark of Microsoft Corp. in the U.S. and other countries.
 PowerPoint is a registered trademark of Microsoft Corp. in the U.S. and other countries.
 RTF is a document format developed by Microsoft Corp.
 SUN is a trademark or registered trademark of Sun Microsystems, Inc. in the United States and other countries.
 TIFF is a file format of Aldus Corp.
 Other company names and product brand names are generally company trade names, trademarks and registered trademarks.

The following products of DocumentBroker Server Version 3 have been awarded the certification of ISO/IEC 15408.
 (EAL1+ASE_OBJ.2, ASE_REQ.2, ASE_SPD.1(CCV3.1))



The certification obtained by these products concerning information security is the result of the evaluation of the Target of Evaluation based on the evaluation criteria and evaluation methodology. It certifies that the product conforms to security assurance requirements defined in the standard.

Information service

The service provides information about uCosminexus DocumentBroker over the Internet. <http://www.hitachi.co.jp/documentbroker-e/>

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