NXT 3 Glossary Introduction

Glossary entries for the NXT 3 product are provided in this document. They are arranged alphabetically.

Individual help topics have links to the glossary definitions. These links open a small window with the relevant definition. The Introduction to each help topic has a link to the Master Glossary Introduction, which contains links to each glossary item.

Select a term to get a short definition.

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Document Information and Copyright Notice

Document Name	Version	Date
Master Glossary	3.4	May 2002

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Access Control

The process of managing who can enter an NXT 3 site and what content they may access once inside that site. Access control properties define what the user can see, navigate, or change, and other kinds of information. Access control is comprised of three operations:

- Authentication--Determining who is making a request of the site.
- Authorization--Granting the user specific rights within the site.
- Metering--Refining a user's authorization based on predefined access rules and limits.

Access Control Module

The NXT 3 access control module's function is to challenge potential users for their credentials and then query a data storage device to verify the credentials. Along with checking credentials, the access control module retrieves a user's access control properties that define what the user can navigate (through the table of contents), query, view, and edit. Once the access control properties are obtained, they are used for the current request and any subsequent requests the user makes.

You can configure NXT 3 with one of two access control modules:

- ACM (DLL or Shared Object)--Uses an external service (for example, the LDAPData Service) to validate credentials and retrieve access control properties. ACM also has a metering interface that allows another service to test all the metering requests.

    Note: When the LDAP Service is enabled through the Content Network Manager, it has a set number of users. To create new users or change user information you must use an appropriate LDAP client application.

    Note: Metering is available within NXT 3, but requires customized enhancements available only through NextPage Consulting Services. You can reach a consulting representative by calling 1800Nextpage or 801.768.7600, or by sending an email to consulting@nextpage.com

- DefaultACM (DLL or SO)--Locally maintains all information about users and their access control properties so you can use Content Network Manager to create new users, change access control properties, and generate new domains. A special proprietary application is not required. DefaultACM has two predefined users: Anonymous and Administrator.

See Also

Access Control Help

Authentication

The process of verifying the credentials of a user or user agent. Credentials can be a user name and password, a digital certificate, or a number of other less common mechanisms. Authentication information typically resides in an enterprise system such as an LDAP directory service, a relational database, or perhaps an operating system based directory such as Windows® NT Domains. The Access Control Module can either

perform the authentication by obtaining the user's credentials from one of these services, or it can simply pass the credentials to another system that performs the authentication and returns a response.

Authorization

The process of granting users access to site elements, such as documents, operations, and services. Access to an element at a given level ([node](#)) also allows access to all elements that are children of that element (as long as the domain is set for the parent node and not the children individually).

Authorization also includes the application of a set of access control properties for a user. The standard set is view content, view metadata, navigate, query, element (Word Wheel), author, and editor. These roles define the types of access that are allowed for a given user. These are specific to the components that implement them, so the writer of a new component implementing a certain kind of interface can define roles suitable for that function.

Specifications for user IDs and roles are contained in an external directory, such as an LDAP or relational database server. Each NXT 3 system component and service is responsible for enforcing the access control rules. The access control module merely provides information when requested. For example, if a relational database is defined as a content collection on a server, it is represented as a node in the table of contents. Access to the database is allowed by putting its node ID in the content domain specified for the user who you want to give access rights to.

Boolean Operator

A predefined word or symbol that is used within a search for refining queries, or to focus on more specific or more general information than may be found with a single word, keyword, or phrase. There are four Boolean operators:

Operator	Example
And	cat and dog cat & dog
Or	cat or dog cat | dog
Not	cat not dog cat ^dog
XOr	cat xor dog cat ~dog

Boolean Operator Searches in Client Query Syntax Help

Build

The process that creates the search and navigation information for specific content. For content collections, a build also includes the content. For a content network link, the build happens to the content on the content host, and not on the server creating the link.

Search and navigation information may become obsolete as the content (like ODBC databases, file systems, or external Web sites) changes. Content Network Manager allows you to schedule if and how often a build takes place for a content service.

Circuit Link

See [recursive link](#).

COM Object

NXT 3 supports external scripting with a COM object that can be instantiated from script. This COM object dispatches its interface calls to NXT 3 through a registered COM server that is running as an NXT 3 service. Through this connection, an external script can create a user session with the [Executive](#) to request services, send notifications, and perform administrative tasks.

Component

A specialized software module that manages the presentation of the interface between users or programs and services.

COM Server

In regards to its use in NXT 3, when the NXT 3 COM server is initialized, the DLL registers itself with the COM Running Object Table. This table enables external entities to find the NXT 3 Server and connect to it (via the NXT 3 COM server). The NXT 3 COM server is available only while NXT 3 is running.

The COM server also supports calls from scripts running under Windows Scripting Host, as well as Visual Basic applications or other external applications that support COM calls.

Content

Documents, databases, applications, and other digital media. The word content does not by itself refer to any particular unit of content, but can be paired with other terms to describe units of content, such as [content collections](#).

Content Broker

Refers to the local side of a link. If company X links to company Y, company X is the content broker and company Y is the content server (content host). Content brokers receive information from servers to which they are linked.

When linking with the Content Network Adapter within NXT 3, server and broker are modes in which the NXT 3 server operates. An NXT 3 server can function both as broker and as server in content network link exchanges.

Content Collection

Typically, a collection of one or more documents. In NXT 3, you can also create an empty content collection in Content Network Manager for the purpose of letting users add their own content later. Content collections can contain any type of document, as well as considerable internal folder structure. NXT 3 indexes the following types of documents within a content collection: HTML, XML, plain text, Adobe PDF, Microsoft Word, Microsoft Excel, Microsoft Powerpoint, Corel WordPerfect.

In the table of contents, a content collection can open to display a document and sub-document hierarchy. The site hierarchy is determined either through Content Network Manager, or from a Site Definition File. The content collection and document hierarchy can be determined by the content collection makefile. The sub-document hierarchy is created by applying features within a document, such as the use of headings.

You can distribute search forms with your content collection that provide more directed searches of the content you provide. As part of the install you provide, you must add your search forms to the site so they will be available when the user clicks on the search forms toolbar item. Optionally, you can modify the toolbar template so that a toolbar item links directly to your search form.

Use NextPage Application Framework Build Utilities to build content collections, or use the Content Network Manager to create an empty content collection and check documents into this new collection using Manage Content.

See Also

Content Service

Content Host

See content server.

Content Management

The large body of content that resides on a site typically comes from different sources. Much content comes from external sources in a finished form, but other content is internally generated and continuously updated. Managing dynamic content requires a system that does the following:

• Allows new content submissions from various sources.

• Allows modification of existing content.

- Allows editors to organize the resulting content collections.

Documents can be created or modified with an editor, word processor, or some other application. Users can submit documents to the site, specify location in the content hierarchy, and specify document metadata such as author, title, and abstract. A user can also modify an existing document and document metadata. During modification, the user checks out and locks the document, which prevents other users from checking out the document. You cannot edit the properties for content or download the content until the file is checked in.

Content Network Adapter

Retrieves remote content and allows NXT 3 Servers to communicate with each other (typically through the use of a content network link).

Additional, third party, content network adapters may also be installed and used.

Content Network Link

Refers to a site node that defines a connection between a client (content broker) and a server (content server). You can link to any site that is running LivePublish 2.0.3 or later, or NXT 3, providing that the site allows syndication rights.

These content network links use a Content Network Adapter, a system that allows NXT 3 servers to interconnect, functioning both as server and as client.

> **Note:** When creating Content Network Links, avoid circuits (also known as 'circular' or 'recursive' links) where Server A points to Server B, Server B points back to Server A.

Content Network Manager

The graphical user interface (GUI) utility for managing NXT 3 Servers. In addition to providing a GUI interface to all server configuration information and INI files associated with the NXT 3 product, Content Network Manager allows you to modify a site and server configuration without shutting down the server. Content Network Manager allows you to log in and manage networks of sites on the local host or on a remote server. Content Network Manager stores your site configuration in an XML file called the Site Definition File.

As part of the NXT 3 installation, you may (optionally) choose to password-protect access to the Content Network Manager. To password-protect access to the Content Network Manager, you must specify a password during installation or through the Access Control Module in Content Network Manager.

To enable secure access to the Content Network Manager, two user names are added during installation: *Administrator* and *Anonymous*. The password you specify during installation is assigned to the Administrator user name. The Administrator user is the only user with administration rights to the server. No password is assigned to the Anonymous user. Additional users may be added with administrator rights.

Content Server

In general, any web server that provides content to users through a web browser is a content server. For NXT 3, it is also the server that provides content for another server, through the use of a content network link.

Content Service

A feature of NXT 3 that provides search and navigation information for an independent set of content. NXT 3 provides content services to the following:
- A set of local files (files on the host computer).
- An ODBC database.
- An external Web site.

Other types of content services may be added as well, including third party document store (index) services.

Creating a content service in the Content Network Manager allows you to add what looks to your users like an additional content collection. An NXT 3 content service does not store the content; it simply indexes a structure for the NXT 3 search engine and table of contents.

Content Type

The MIME type for specific content, such as: "text/html", "text/xml", "application/pdf", "application/ms-excel", "application/msword", "application/mspowerpoint", "application/x-html-body-text", and "text/plain". NXT 3 can index many content types. NXT 3 can serve any type of content to a site; however, how and if the content is displayed depends on the web browser's configuration.

Out of the box, NXT 3 indexes the following file formats:
- Plain Text
- HTML
- XML
- PDF
- Microsoft Word, Excel and PowerPoint for Office97 and Office2000

However, as a result of installing other software packages, your system may have a different version of offilt.dll, the system DLL that NXT 3 uses to index Microsoft Office files.

Customize

The ability to define the elements of the interface and content as the user wants to view them.

Database Service

A service that retrieves and indexes database elements for use by the NXT 3 system.

A Database Service is set up as a type of content service in the Content Network Manager.

The service uses SQL queries that the administrator enters to generate a table of contents from the ODBC database. It either generates XML documents from field data, or retrieves any discrete documents that are stored in an ODBC database as blobs (binary large objects).

Disconnected Client

A computer that has a replica of an NXT 3 site installed that allows it to display content from a content network without communicating with the original host server.

The content is stored in a [distribution file](#), and updates are contained in [update files](#).

The disconnected client occasionally connects to the NXT 3 Server to obtain the latest content updates. This process is called [synchronization](#).

Display Filter

A module used by the document component to process documents before sending them to the browser. The XML display filter in NXT 3 performs a server-side conversion from XML to HTML for non-XML compatible Web browsers. Several display filters are installed with NXT 3. Custom filters can be created by NextPage's Professional Services.

Once a display filter exists, it must be added to a site through the Content Network Manager. The entry maps a content type to the display filter. When the document component serves any documents of that specified content type, it gives the display filter the opportunity to process the document before it is sent to the browser. The document component passes documents to a display filter after it replaces any replacement variables.

The display filters provided with NXT 3 do not support external resources, such as links to a DTD, external entities, etc. To support these functions, you would need to contact NextPage Professional Services.

Using a display filter is the only way to serve XML in a frameless HTML environment since the frameless templates place the document into an HTML page, and Microsoft Internet Explorer cannot switch gears in the middle of a page. The display filter also generates documents of content type "application/x-html-body-text" instead of "text/html" for the frameless environment (see [content type](#) for more information).

Distribution File

A DPD file that is created on the NXT 3 Server through Content Network Manager. The file is used to create a replica of the NXT 3 site on a [disconnected client](), and is usually copied to the client at the time of the initial installation.

This file contains the original content from the site as well as images and templates.

Typical distribution occurs over a network or from a CD-ROM (usually along with the installation of the client program) since the file is usually quite large.

Variations from the original distribution file are stored in [update files]() and applied to the client through [synchronization]().

Document

The NXT 3 unit of display. A document is a textual data stream that is either authored or dynamically constructed. A document corresponds to a single page viewed in a Web browser.

A document can be of any format, including non-text formats, such as graphics. Supported text-like formats are indexed and fully searchable. A document can be indexed for searching if an index filter is registered for the specific document format.

Logically, a document represents a collection unit, such as a case, chapter, article, etc. At the lowest level a document is a piece of a larger work to be presented to a Web browser. It could be considered a page, without the usual restrictions of the printed page.

Document Model

Because an NXT 3 site is composed of content collections, so a content collection is composed of multiple documents. When you view information in NXT 3, you view it one document at a time. The result of a search in NXT 3 is a list of matches that are linked to corresponding documents.

This is similar to the way most Web-based information retrieval tools work. However, where other tools stop at the document level, an NXT 3 content collection allows you to view and search sub-document components.

Document Element Properties

A document stored in a [content collection]() has a set of properties.

NXT 3 supports these document element properties:
- ID
- Name
- Title
- Hidden
- Version
- Content Type
- Encoding

- Compression
- First-child-content
- Index
- Location
- DSE
- Indexsheet

The version property is specified by the DSE. All other properties are specified in the makefile.

See Also

Requesting Content from NXT 3 in Requesting Content

Document Properties

Site nodes in NXT 3 can be associated with their own document properties. Document properties include the following: Template Path, Image Path, and Stylesheet Path.

For a site, the properties are required, and must be provided as a full path.

For a view, the properties are optional, and must be provided as a relative path from the properties provided for the site.

Document Source Extension (DSE)

A module (DLL or shared object) that npBuild uses to retrieve documents to store in a content collection. The DSE determines how the document's location must be specified in the makefile. The content type specified for a document determines whether the document is indexed. NextPage Application Framework Build Utilities ships with the File System DSE.

The File System DSE reads a document from the computer's hard disk and stores it in a content collection in its native format. You must use file paths to specify the locations of the files that you use this DSE to store.

You can create additional DSEs using the Document Source Extension API. See Document Source Extension API Reference for more information.

Domain

Defines a subset of a site's contents. This subset is defined by nodes, including folders, content collections, content services, and content network links. A domain is a list of nodes in the content hierarchy as presented by the server. Domains are used in views, access control, and search.

In the NXT 3 security model, access can be through a view, a user-based access domain, or a combination of both.

User-based domain access provides additional flexibility over view-based access. Each user can have access to different parts of an NXT 3 site without having to create a

special view for each user. Initially, NXT 3 checks the identity of the user making a request for content and can grant the user anonymous rights, or can require the user to log into the system. Once these rights are established, the user is free to use those resources to which access has been granted.

Subsequent requests might require the user to give different credentials to gain access. If the user makes such a request, then NXT 3 issues a challenge to the user to retrieve the information required to change the user's rights. This challenge might be a request for different credentials or it might be a request for the user to furnish a credit card number to pay for the access.

See Also

[Access Control](#)

Domain Properties

Describes where the user can go, what the user can see, and what the user can query on. The [Access Control module](#) converts domain properties from document ID lists to domain string syntax.

See Also

Access Control Help

Dublin Core

The Dublin Core Metadata Initiative is a cross-disciplinary international effort to develop mechanisms for the discovery-oriented description of diverse resources in an electronic environment. The Dublin Core Element Set is a list of fifteen fixed elements that capture a representation of essential aspects related to the description of resources.

In NXT 3, Microsoft Office and PDF files that contain any of these properties, automatically have a field by the same name applied. This is a starting point. Additional Resource Description Framework (RDF) compatible elements and fields can be created. The default implementation uses RDF and Dublin Core; however, any well-formed XML document can be used in place of RDF if used consistently and the indexsheet is modified accordingly.

NextPage encourages you to use the Dublin Core elements represented in the RDF for document metadata. Manage Content provides an interface for building metadata this way.

A complete list of Dublin Core metadata elements can be found at http://dublincore.org/documents/1999/07/02/dces/.

Effective Attribute

It is common for a user object to inherit attributes from either container or group objects. Such attributes are called "effective" because an object gains the attributes from reading

other objects associated with the original objects. Effective attributes are resolved by one of two algorithms, *additive* and *exclusive*.

By default, effective attributes use the exclusive algorithm, which means that the first attribute that is found becomes the effective attribute. An example of such an attribute is np-remote-access.

Attributes like the np-view-domain are additive, which means that the effective attribute value is a union of all the values of all the objects evaluated. You can have one np-view-domain value on one object and a different value on a related object. The value of the effective attribute is the value from both objects. Additive attributes are specified by listing them in the configuration file.

Encoding

Converting from one text system into another. Encoding of content is the conversion of plain text into encoded data through the use of a code.

The result of this is to change the text's form into another form that is more advantageous for transmission, storage, or reading. NXT 3 makes use of the Unicode standard to capitalize on these advantages for a broad range of languages and character encodings.

NXT 3 supports 87 encoding formats, including documents that are encoded in any of the following character encodings: ASCII, UTF-8, UCS-2, Shift-JIS, and ANSI (ISO-8859-1). To see the complete list of supported encoding formats, see the [encoders] section in the NextPage.ini file.

Excluded Term

To specify a search that excludes a given term, precede the term with the hyphen character (-). This specifies that all documents with matches must not contain the specified term.

Executive

The NXT 3 program that handles requests from the Web browser. The Executive parses the request, then sends it to the appropriate components. The components then return data to the Executive, and the Executive streams data to the Web browser.

The executive.ini file stores the information about which components can handle which requests.

ExternalJava Service

An NXT 3 service that starts the RMIRegistry process and creates a Java Virtual Machine (JVM). From there an NPExternalServer object is created and the object is registered with RMIRegistry.

This process of starting the ExternalJava service allows JSP, Java classes, etc. to access the exposed NXT 3 services using Java RMI.

A Java client uses the standard RMI Naming.lookup method to look up and obtain a reference to the NPExternalServer object.

Field

A text string that is assigned semantic meaning based on its data type. It is indexed separately for efficiency.

An explicitly searchable part of a document that can have type attributes associated with it (like date, time, integer, etc.).

File System Service

A document store that uses the file system as its source.

The File System Service allows files in a local file system to be iterated and retrieved by NXT 3. The File System Service uses the supplied base path as the root when it begins iterating documents.

It is set up as a type of content service in the Content Network Manager.

Folder

Element used to establish the hierarchy of a site. NXT 3 site folders, created using the Content Network Manager, may contain content collections and other folders.

On a general level, a folder is any node that contains children nodes. In this sense, folders merely represent a hierarchy and allow for easier site navigation. These types of folders may (or may not) have content associated with them that would display when the folder title is selected in the table of contents.

Hit

See match.

Hitlist

See Search Results List.

ID

A unique alphanumeric string. For NXT 3, the ID is a string of characters that identifies a given site, folder, content collection, view, or search form. It must be unique among all other IDs on a NXT 3 site, but does not need tp be unique between different sites on the same NXT 3 Server.

Impersonation

The process of changing one user's access control properties to another user's access control properties. The Allow-Impersonation access control property determines which users are allowed to change their access control user properties to those of another user.

> **Note:** The Access Control Modules supplied with NXT 3 do not allow the Anonymous user to be impersonated.

Impersonation is most appropriate in the context of a content network that assumes a trusted relationship exists between the integrator server and the content server. It is further assumed that across the entire content network all user names are unique.

Index

The complex set of data structures that support search, navigation, and recommendations.

NXT 3 indexes files of the following content types: "text/html", "text/xml", "application/pdf", "application/ms-excel", "application/msword", "application/mspowerpoint", "application/wordperfect", "application/x-html-body-text", and "text/plain". The NXT 3 server uses the IFilter COM interface to extract terms from Microsoft Office and Acrobat PDF files. IFilter requires that the application be installed on the computer along with NextPage Application Framework Build Utilities.

These content types correspond to the following file formats that NXT 3 indexes:
- Plain text
- HTML
- XML
- PDF
- Microsoft Word, Excel, and PowerPoint for Office 97 and Office 2000

However, as a result of installing other software packages, your system may have a different version of offilt.dll, the system DLL that NXT 3 uses to index Microsoft Office files.

Index Sheet

A stylesheet for indexing. It is a rule-based system modeled after Extensible Style Language (XSL). Index sheets typically use the .XIL extension: HTML.XIL is the default index sheet for HTML documents; XML.XIL is the default index sheet for XML documents; and metadata.XIL is the default index sheet for metadata files. Among other benefits, index sheets allow you to put your HTML sub-document hierarchy into the NXT 3 table of contents.

Initialization

During initialization, information from a configuration file is read and cached. If the CheckSchema entry is set and the server is LDAP v3 compliant, a schema check is performed to verify that the service's required attributes exist on the LDAP server.

Java Object

NXT 3 supports external Java using Java objects that can be instantiated from Java code. This Java object dispatches its interface calls to NXT 3 through a registered

Remote Management Interface (RMI) object that is created by an NXT 3 service. Through this connection, external Java code can create a user session with the [Executive](#) to request services, send notifications, and perform administrative tasks. NXT 3 supports several kinds of Java objects.

Keyword Search

One of the most basic types of searches. This and a [phrase search](#) are the building blocks for all other types of searches.

A keyword search finds all records that contain the words you specify. To specify a keyword search, type each word you want to search for, separated by spaces.

See Also

[Wildcard Search](#)

Link

Connection between two obejects. For NXT 3, it refers to a node in the [Site Definition File](#) that defines the connection between a client and a server.

See Also

[Content Network Link](#)

Makefile

An XML file that provides instructions to the npBuild utility on how to build a [content collection](#). The makefile defines the structure and ordering of the content collection's content, as well as instructions on displaying or hiding documents in the table of contents view of the content collection.

A makefile describes several things that npBuild needs to build or update a single content collection. Each of these items corresponds to a construct in the makefile syntax:

- [DSEs](#) to be used.
- DSE parameters.
- The content collection to be created or updated.
- Content collection properties.
- Fields to be created.
- [Index sheets](#) specifying where to apply fields.
- The document hierarchy.

The makefile must conform to the content collection makefile DTD and be UTF-8 encoded. UTF-8 encoding is assumed and does not need to be specified in the makefile.

Manage Content

Feature that allows users to add, remove, edit, and check in or out content for an NXT 3 site through a Web browser interface.

Match

Terms or documents found by a search.

NXT 3 highlights term matches in PDF, XML, plain text, and HTML formatted documents. The NXT 3 toolbar provides tools for moving between matches.

Metadata

Data about data. A set of properties describing a document: such as author, title, and creation date. NextPage recommends using the [Resource Description Framework](#) (RDF) for metadata. The metadata used by NXT 3 is specific metadata used for searching or resource discovery.

Metadata support allows the defining, creating, storing, indexing, searching, retrieving, etc. of metadata. Metadata can exist within the resource that it is describing (internal metadata), or it can exist in a separate file (external metadata) that is associated with the content file.

By default, NextPage uses the [Dublin Core](#) rules as a foundation for processing external metadata, as in Manage Content.

Metering

Metering is the process of refining a user's authorization based on usage-based criteria (meters), such as the number of pages viewed, user concurrency, or resource usage. Metering allows you to limit access based on rules other than access lists. The default request types supporting metering are document requests and query requests.

The access control module can track what the user does at the site and generate a statistical analysis. If desired, the access control module can also perform such metering functions as keeping track of how many documents a user retrieves, what documents the user retrieves, what queries the user makes, what resources the user uses on the server, etc.

> **Note**: Metering is available within NXT 3, but requires customized enhancements available only through NextPage Consulting Services. You can reach a consulting representative by calling 1800Nextpage or 801.768.7600, or by sending an email to consulting@nextpage.com

MIME Type

See [content type](#).

Name

Property of NXT 3 sites, folders, and content.

The name is used for specifying paths in the URL and in links. It is usually short. The name must be unique among siblings within the same node, but the same name could be used in different nodes.

See Also

[Title](#)

[ID](#)

Node

Within an NXT 3 site, a node is anything that is displayed in the table of contents, such as documents, folders, content collections, etc.

In general, a node is a point at which subsidiary parts originate or center. In a tree, or hierarchical, structure, a node represents a point from which branches originate. All branches that originate within the same node are children of the node and siblings to each other. Consequently, each node has a parent (except the topmost one), may have zero or more siblings, and may have zero or more children.

Operator Precedence

The query operators have a precedence order. That is, when two more operators are used in a query, the results of one operator will be evaluated before another operator. Understanding the precedence--and how to override the precedence through the use of parentheses--can help you find information you need.

The operator precedence is:
1. **Not**
2. **Or**
3. **XOr**
4. **And**

If the same operators are used in a query (for example, if **Or** appears twice in a query), the operators are evaluated from left-to-right.

Phrase Search

One of the most basic types of searches. This and a [keyword search](#) are the building blocks for all other types of searches.

A phrase search finds all records that contain an exact phrase. To specify a phrase search, type the phrase you want to search for in full quotation marks.

> **Note:** A phrase is considered to be a single term and may be used as a keyword. Also note that phrases may use wildcards.

See Also

[Wildcard Search](#)

Proximity Search

Search based on how close two (or more) words must be to each other in order to register a match. There are three types of proximity searches:

- Word proximity--range in which all search terms must appear in a document.

- Sentence proximity--search for terms that appear in the same sentence. By default, every document in a content collection is assumed to be a sentence. Individual sentences (meaning text between two periods) are not necessarily used for sentence proximity searches. Sentences must be defined using special sentence proximity codes when the content collection is created (the creator of the content collection controls where these codes appear). As such, "sentences" may span multiple actual sentences within a record (as in a list of items). See *Index Sheet* in NextPage Application Framework Build Utilities Help Reference for a discussion about using fields as proximity tokens.

- Paragraph proximity--search for terms that appear within the same paragraph. By default, every document in a content collection is assumed to be a paragraph. Individual paragraphs (meaning text between two paragraph breaks) are not necessarily used for paragraph proximity searches. Paragraphs must be defined using special paragraph proximity codes when the content collection is created (the creator of the content collection controls where these codes appear). As such, "paragraphs" may span multiple actual paragraphs within a record (as in a list of items). See *Index Sheet* in NAF Build Utilities Help Reference for a discussion about using fields as proximity tokens.

Recursive Link

A link where Server A points to Server B and Server B points back to Server A (also known as circular links). Although safeguards are in place, recursive [Content Network Links](#) can still create delays, or require reloading the table of contents.

NextPage suggests a simple rule to help you avoid recursive links: if a server is going to define links *and* be linked to from another server, then the view that will be linked to should not contain any links. The best practice is to design a specific user that will be used by others when they define a link to your server. The user is given syndication rights, and the default view is removed from this user's list of valid domains. Create a new view for this user, and restrict the domain of this view. Specifically, remove links on this server to other servers. These links must be removed from the view domain if the possibility exists that some child node may point back. If no child node will ever point back, then include the links to other machines; that is what makes the content network rich and useful. Other machines can and should define links to machines that have links, but avoid recursive links for maximum site performance.

Remote Server

A server that is not being accessed directly through physical contact.

When administering NXT 3 Servers, you can administer a local server (the machine you are currently using) or a remote server (a server in another location). To administer a remote server you must have access rights to the server and you will need to provide a valid user name and password.

Remote servers are not the same as servers that you declare when creating a content network link. Technically, content network links point to remote servers, but when you create or access a content network link, you are not administering how NXT 3 runs on that remote server; you are only pointing to or accessing content.

Required Term

To search for a required term, precede the term with the plus character (+). This specifies that all documents with matches must contain the specified term.

Reserved Character

Phrases containing these characters must be enclosed in single quotes if it occurs in a field, level, group, scope, etc.

The following are reserved characters:

[	left square bracket
]	right square bracket
*	asterisk
/	forward slash
$	dollar sign
&	ampersand
^	up arrow
:	colon
?	question mark
'	single quote
%	percent sign
|	bar

~	tilde
#	pound sign

Resource Description Framework (RDF)

A World Wide Web Consortium (W3C) initiative, building upon earlier developments such as the [Dublin Core](#) and the Platform for Internet Content Selectivity (PICS) content rating initiative.

NXT 3 uses RDF as a default foundation for processing external metadata, with Dublin Core property definitions. See http://www.ukoln.ac.uk/metadata/resources/dc/data-model/WD-dc-rdf/ for details. You may implement alternative forms of external metadata, as long as these files follow XML specifications, and as long as you develop the appropriate [index sheets](#).

When you use Manage Content to assign metadata to a file, NXT 3 places this metadata in an associated RDF file. If you are building a content collection, then you can use the makefile to associate RDF files (or other metadata file-types) with documents within the content collection.

RDF provides a syntax for encoding and transporting this metadata, to facilitate interoperability (i.e., exchange of machine-understandable information) between independently-developed server and client applications. RDF has a broad range of benefits and uses; NXT 3 capitalizes on the following aspects of RDF:

- RDF makes it possible for NXT 3 to specify semantics for data based on XML in a standardized, interoperable manner.
- RDF facilitates resource discovery, providing NXT 3 with better search engine capabilities.
- RDF facilitates cataloging of both content descriptions and content relationships available at a particular Web site, page, or digital library.

Search Form

An HTML form that specifies the text and field values to search for, as well as the scope (subset of the content) to apply the search to. It is implemented in NXT 3 through a template. Search forms may use JavaScript to construct a query to apply to the site.

The templates installed with NXT 3 include an "advanced query form" that allows the user to select branches of the table of contents to query and to select query options such as words around matches.

Search Results List

List of matches found by a search. A Search Results List can contain fields, reference line, ranking, and words around matches. A search template specifies what information to include in a search results list.

Selecting a match from a search results list displays the corresponding document in the document frame.

Server

A computer that is used to provide services. An NXT 3 server provides content and search capabilities.

Service

An item that communicates with content sources and implements specific functions that enhance the use of content.

Service Instance

Function in NXT 3. There are two types of service instances:

- A *base* instance is created through the Service_Create function and allows a service to initialize an instance without binding it to any specific request. The base instance is important for service instances that take a significant amount of time to initialize functionality that is not request specific. For example, a service might load a remote database and cache information that is not specific to any user request.

- A *request* instance is specifically tied to a user or notification request. A base instance is returned to the service when a request instance is created during the Service_CreateRequestContext call. In response to this call a service should either wrap the base instance inside another instance interface, or create an entirely new instance interface if there is no base instance to build from.

Shared Object

A self-contained module of data that is designed to interoperate with other objects at runtime.

In NXT 3, a shared object is part of the Unix part of the program, and it functions like a DLL would for Microsoft Windows.

Site

Collection of content that is hosted by the NXT 3 Server. The site can be organized hierarchically using folders and content collection structures. A site may contain content collections; content services; content network links; search templates; display templates; and site, folder, and content collection properties. The definition of an NXT 3 site is stored in an XML file (the site definition file). You may modify the definition of a site using the NXT 3 Content Network Manager application.

Site Model

NXT 3 is designed around a site model. When users access an NXT 3 site, they are presented with a site table of contents that allows them to browse the content collections stored on the site. They may also search across all content collections or a subset of the content collections.

As an NXT 3 site administrator, you can control the organization of your site and what content to display. Others may provide content for you, but you determine how the content is integrated with your site. Typically, related items are gathered into collections or sub-collections to keep themes together.

Site Definition File (SDF)

Specifies the sites for an NXT 3 Server, as well as the [content collections](#) that are hosted on a site. You can use folders to organize the content collections into hierarchies. The site definition file also includes search forms available for use.

The SDF is an XML file that is used to store information regarding an NXT 3 site. Each NXT 3 Server has one SDF for each site. The name of the SDF for the default site is NextPage.sdf. If you create additional SDFs, the name can be any valid file name with the .sdf extension.

The preferred method for editing the SDF is to make changes through Content Network Manager. The SDF can also be edited using a text editor or XML editor. If you make changes in the SDF without using Content Network Manager, you must stop and start the World Wide Web Publishing Service for the changes to be recognized. Changes made through Content Network Manager are updated on the site when you select "Apply All Changes" (you do not need to stop and start the WWW Publishing Service).

Stop Word

Common word, such as the, it, is, and a, which generally does not add any value to a search. The creator of a content collection can specify whether the index for the content collection leaves stop words out of the index. This reduces the size of the content collection by not allowing matches on these stop words for phrase or proximity searches.

   Note: They can be searched for and found in any other context.

The complete list of stop words used in the English-US version of NXT 3 is:

a	about	after	all	an
and	are	as	at	bet
but	by	can	for	from
had	has	have	he	his
I	if	in	is	it
its	no	not	of	on
or	out	said	than	that

the	their	they	this	to
up	was	we	were	when
which	who	will	with	would

Note: The inclusion of these stop words in the index can only be set when the content collection is created using NextPage Application Framework Build Utilities.

Stylesheet

Master page layout document that is often used in document creation systems such as word processing and Web pages. It typically stores margins, fonts, and other layout settings for a set of documents. When a stylesheet is used, the formatting is applied to the document that references it. This can save the page designer from having to redefine the same settings for each page.

NXT 3 can make use of Cascading Style Sheets (CSS) and XML stylesheets (XSL) for the formatting and display of content.

See Also

Template

Synchronization

The process whereby a disconnected client connects to an NXT 3 Server to obtain and install the most recent updates from the content network onto the client's replica of the content network. The process uses a distribution file and update files to determine what needs to be synchronized.

Syndication

Technology that allows servers to be linked together in a content network.

When used with security, syndication rights represent whether a user is able to make requests to a content server.

Table of Contents

NXT 3 provides both HTML and Java applet versions of a table of contents for browsing site and content collection hierarchy. Clicking any underlined table of contents item displays the corresponding document in the document frame.

The makefile can specify the hierarchical arrangement (or tree) of documents within a content collection, which shows up in the table of contents. By default, each document corresponds to an entry in the table of contents. Optionally, you can specify that a document not appear in the table of contents. Documents can also contain a

sub-document hierarchy that is reflected in the table of contents. A document may or may not have content associated with it, and can have zero or more child documents (which would make it seem to be a folder).

Template

File containing HTML and Javascript that references components to dynamically construct a presentation interface. Templates are used by NXT 3 to display content collection contents, search forms, and configuration screens in a Web browser. Templates typically contain special HTML comment tags (Replacement Variables) that NXT 3 replaces with content collection content or server values before sending the template file to the browser.

Title

Text displayed to the user in the table of contents for the associated document. Document titles are often different from their names, as names may be short, while titles are usually descriptive.

Tree

Hierarchical structure of a Web site. The table of contents for NXT 3 shows this structure. A tree can have branches (sometimes referred to as nodes), parent nodes, and children nodes.

Unix

An operating system that can run the NXT 3 Server. NXT 3 versions 3.2 and 3.3 support Solaris, Sun's Unix-based operating system.

Update File

For Content Collections

A file you can create and distribute to update the information of your content collection without completely rebuilding the entire content collection. Generally, update files are smaller, and make good sense when you need to make small updates to a content collection.

You create an update file by executing npBuild on an existing content collection (whose makefile or source documents have changed). The name and location of the update file is specified in the content collection makefile.

You add an update file to a NXT 3 site by placing it in the same directory as the master content collection and changing the file name property of the content collection to point to the newest update file.

You can layer more than one update file on top of a content collection by specifying an update file instead of a content collection as the source content to update.

For Disconnected Clients

An SPD file that is used during the [synchronization](#) process to deliver changes and updates tp the [disconnected client](#).

It is used in conjunction with a [distribution file](#).

Typical distribution methods are over a dialup connection and through email.

An SPD file can be installed on the client by double-clicking on the file.

View

Resource for managing display of data and access to that data. A view can include either the whole or a subset of a site's table of contents, and can also include a set of templates that provide the interface for the view. Each view can contain folders, content collections, and content services. A view manages the display of the content for a site, as well as access to that content.

Each view may use different templates to provide a customized appearance for the view. Each view can be given a unique interface by specifying non-default template and image directories for the view. In addition, each view can specify the language of the query components to use when searching the view.

A site may include multiple views, each providing access to different portions of the site and using different templates.

You define a view by using Content Network Manager to create a view element which specifies the view's ID, templates path, domain, highlight style, and the language for the view. The parent element of the view is considered the root element of the view. The view's domain attribute specifies which descendants of the root node are visible in the view.

In the NXT 3 security model, access can be through a view, a user-based access domain, or a combination of both.

Web Site Service

Service that allows you to place selected contents of external Web sites into your NXT 3 table of contents.

The Web Site Service is a content service in the Content Network Manager.

To a user of the NXT 3 site, the contents appear as if part of the table of contents, just like any other content service, content network link, or content collection.

The Web Site Service communicates using the standard Web TCP/IP Port (80) or any other given port.

Wildcard Search

Search type that allows you to find words using patterns for a set of words and to find synonyms or forms of a word. You can use wildcards in phrase and proximity searches.

A wildcard can stand in for a single character using the question mark character (?); for multiple characters using the asterisk character (*); for synonyms of the search term using the dollar sign ($) immediately after the term; or for word forms (stems) of the search term using the percentage sign (%) immediately after the term.