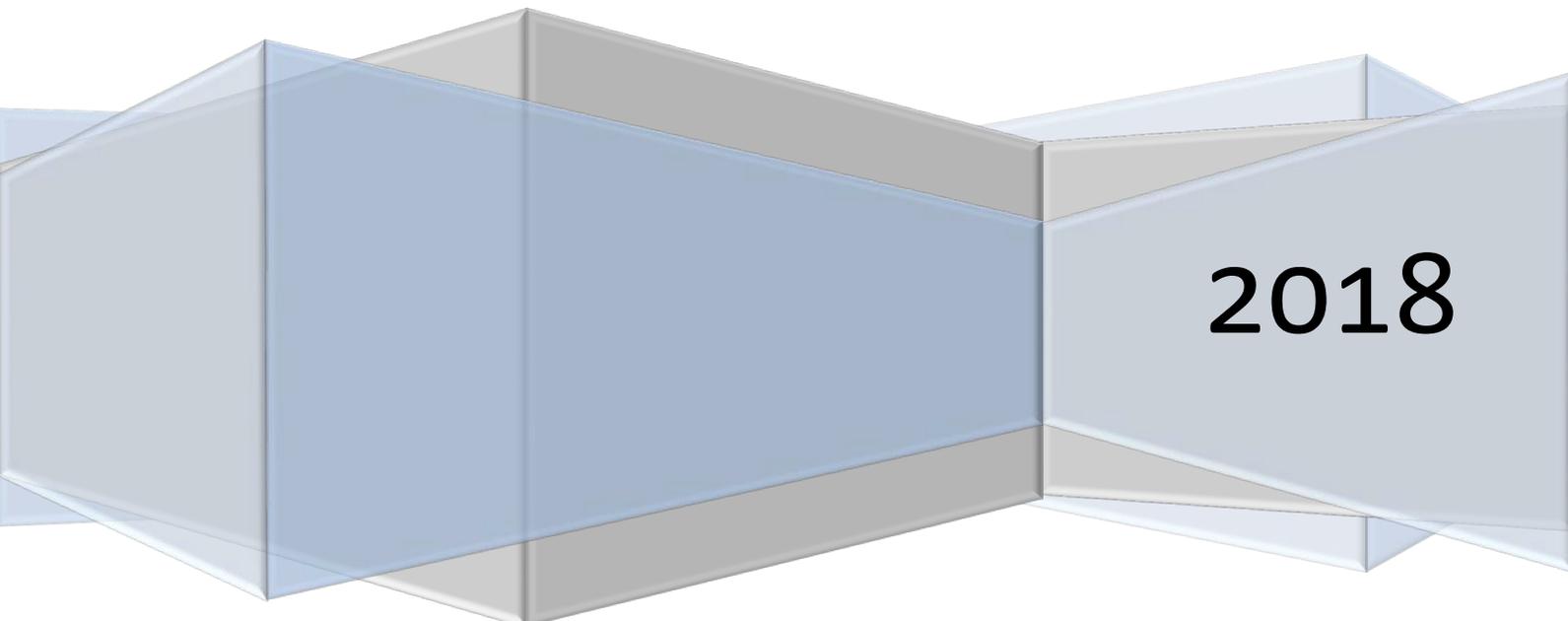




NetDocuments Searching Guide

ndSearch Made Simple

A large, 3D-rendered graphic of a ribbon or banner. The ribbon is light blue and grey, with a perspective view that makes it look like it's coming out of the page. The year "2018" is printed in a large, black, sans-serif font on the right side of the ribbon.

2018

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Overview

The NetDocuments ndSearch search engine is a very simple yet powerful tool. As with many document management systems, searching is a major component of NetDocuments. As an integral part of NetDocuments, efficient and informed use of ndSearch will result in an optimal user experience. This document describes the functions and capabilities of ndSearch for administrators and end-users. The appendices include resources for those who wish to design training for end-users.

ndSearch is made up of two main components – indexes and queries. For users, indexing is relatively unseen as it occurs automatically within the underlying system. Users initiate queries when they do certain actions, such as perform a search, open a workspace, or open a Saved Search or filter. These are all searches that perform a query against an index.

For more information about using the REST API to perform searches, refer to our API Documentation: <https://support.netdocuments.com/hc/en-us/articles/205219850-API-Documentation>

Indexing

Documents and emails are added to an index in order to allow them to be searchable. When a user performs a search, a query is made on the index and returns items from the index that match the search criteria.

There are two kinds of indexing – **metadata** indexing and **content** or full-text indexing. Consequently, there are two kinds of searches – metadata (name/subject) and full-text (keyword) searches.

A keyword or full-text search will look for a word wherever it may relate to a document – in the name, the content, the profile fields, etc. These types of searches are usually user-defined, meaning the user decides which criteria to enter in the search.

A subject or metadata search will find information that *describes* the document – the name, the profile fields, comments, notes, etc. These kinds of searches generally use system-defined criteria, or are facilitated by a pre-defined list of values or categories, such as values from a lookup table.

Indexing Priorities

New documents and folders and changes to those items are indexed according to a priority. This is to ensure that critical changes are quickly updated for all users. Less-critical items and changes are processed by the indexer at a lower priority to allow more capacity for the higher priority items. Higher priorities go to the front of the line or queue.

Items are also submitted to be indexed in batches. For example, User A uploads 10 documents. At the same time, User B uploads 100 documents. The 10 documents will be processed together, and the 100 documents will be processed together, rather than processing a single queue of 110 documents.

However, the group of 100 will be processed slower than the group of 10, all other things being equal.

Additionally, there are two paths or “lanes” in which items can be indexed:

- 1) **Low latency path** - This path includes new folders, documents, profile changes, etc. This path is to ensure that small changes by end-users are seen almost immediately, and are not impacted by large-scale changes.
- 2) **High throughput path** - This path includes API actions, bulk changes such as imports and other large-volume requests.

Within each path, items are indexed according to their priority. Indexing performance is therefore a triad function of these three factors – priority, volume, and placement in queue.

See Appendix A – Indexing Priorities for a list of the indexing priorities.

Quick Searching

At the top of every page in NetDocuments is the Quick Search bar that allows users to quickly execute a search. Simply begin typing a word or phrase to see additional options.



The *Everything* field is often referred to as a "keyword" search or All Attributes search. It is primarily used for a broad search for variations of a particular word, phrase, or number across all search fields. The *Name/Subject* field will search only within the name of the document or the subject of the email.

For more narrow or specific searches, use the Advanced Search page. There, you can perform searches by metadata (tags), such as Client, Matter, Subject, Author, date, or file type.

The Quick Search bar will also show a list of your 3 most recent searches. Hover over the recent search to display a summary of the search criteria, and the option to edit the criteria. Click a recent search to run it, or hover over it and click "edit" to edit that search's original criteria. Expand the arrow to see up to 10 recent searches.

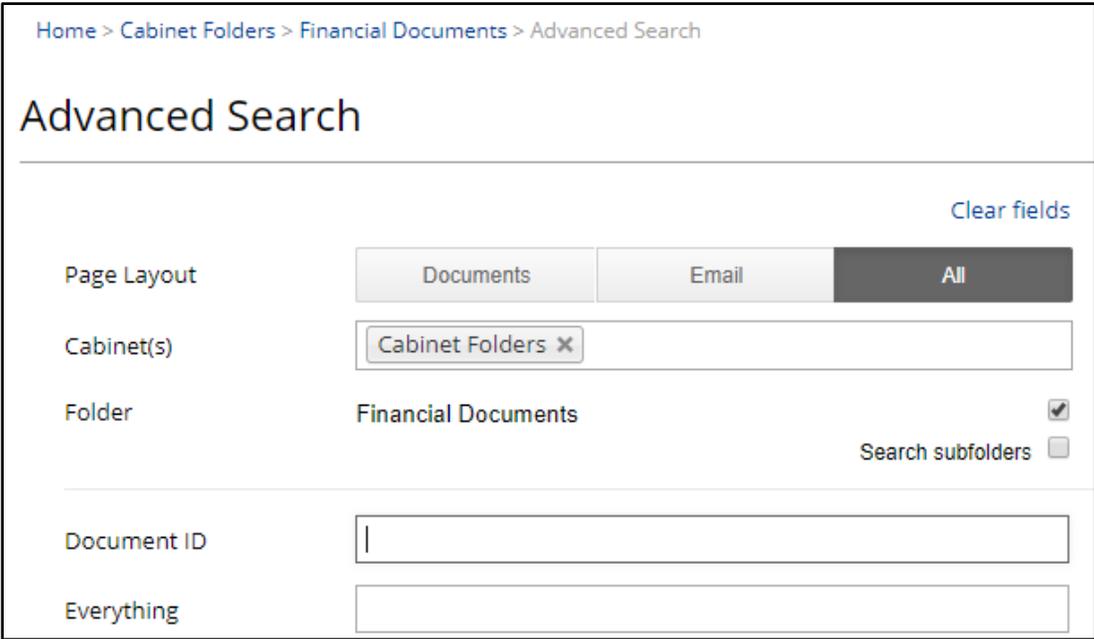
Your 10 most recently accesses Saved Searches will also be available from the Quick Search drop-down.

Search Scope

Each search begins by defining the search scope. The scope is usually a single cabinet, but could be a single folder or workspace. A search is limited to only those items that fall within the scope. In many cases, a search's scope is automatically defined based on where the user begins the search from.

The search scope in the Quick Search bar will default to the folder or workspace the user is viewing at the moment. When navigating to the Advanced Search page, the scope will default to the last or most recent container the user was in.

In this example below, the user opened the "Financial Documents" folder, and then navigated directly to the Advanced Search page. The scope is then defined as the "Financial Documents" folder, which in turn resides within the "Cabinet Folders" cabinet.



The screenshot shows the "Advanced Search" page with the following configuration:

- Breadcrumb: Home > Cabinet Folders > Financial Documents > Advanced Search
- Page Layout: Documents, Email, All (selected)
- Cabinet(s): Cabinet Folders
- Folder: Financial Documents
- Search subfolders:
- Document ID: [Empty text box]
- Everything: [Empty text box]

Users can select more than one cabinet at a time, but this results in slower searching performance and is not recommended or generally needed.

When searching within a folder, the user will have an option to include subfolders. This will include the first 20 subfolders in the search scope.

Advanced Searching

In this section, we'll discuss what kinds of searches can be performed and the many methods available to users from the Advanced Search page.

Page Layout

At the top of the page, users can select the type of page layout (Documents, Email, or All) that will be used when displaying the search results. These layouts are defined by the user under Define Display Format. These layouts determine which of the user's defined display formats will be used on the search results page. See Customizing Search Pages below.

These layout options also adjust the fields available on the Advanced Search page. For example, selecting Emails will change the Name field to Subject, and will automatically filter the results by .msg or .eml files.

Document ID

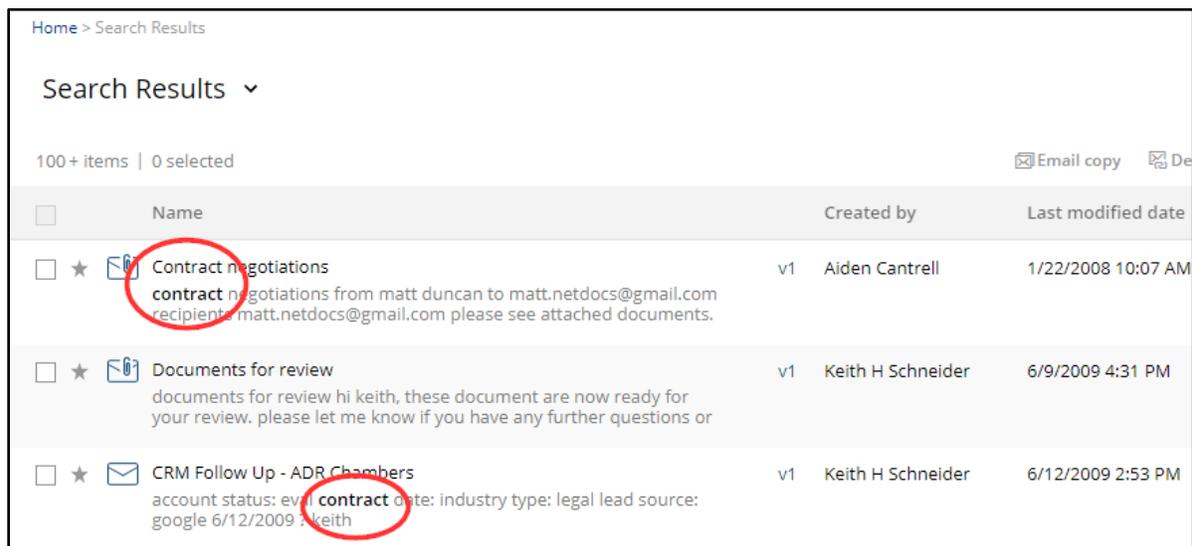
Each document, email, folder, and Saved Search has a unique identifier called a Document ID. This field allows users to enter one or more Document IDs to locate those items.

This field performs a lookup rather than a search of the index. Any other criteria that is entered is ignored when using this field. With the ID lookup, the index is not queried. Rather, the item is retrieved directly from the database. This is in part because the item may not be indexed and so may not be searchable.

Everything

This field performs the same full-text search that is available from the Quick Search bar. This will search across all fields, including document content where it is available.

By default, when using the Everything field, snippets of the document or email's content will be displayed on the search results page.



Home > Search Results

Search Results ▾

100+ items | 0 selected ✉ Email copy 📧 De

<input type="checkbox"/>	Name	Created by	Last modified date
<input type="checkbox"/> ★ 📧	Contract negotiations contract negotiations from matt duncan to matt.netdocs@gmail.com recipient: matt.netdocs@gmail.com please see attached documents.	v1 Aiden Cantrell	1/22/2008 10:07 AM
<input type="checkbox"/> ★ 📧	Documents for review documents for review hi keith, these document are now ready for your review. please let me know if you have any further questions or	v1 Keith H Schneider	6/9/2009 4:31 PM
<input type="checkbox"/> ★ 📧	CRM Follow Up - ADR Chambers account status: evl contract date: industry type: legal lead source: google 6/12/2009 : keith	v1 Keith H Schneider	6/12/2009 2:53 PM

Snippets can be turned on/off under the user's Define Display Format settings.

Name/Subject

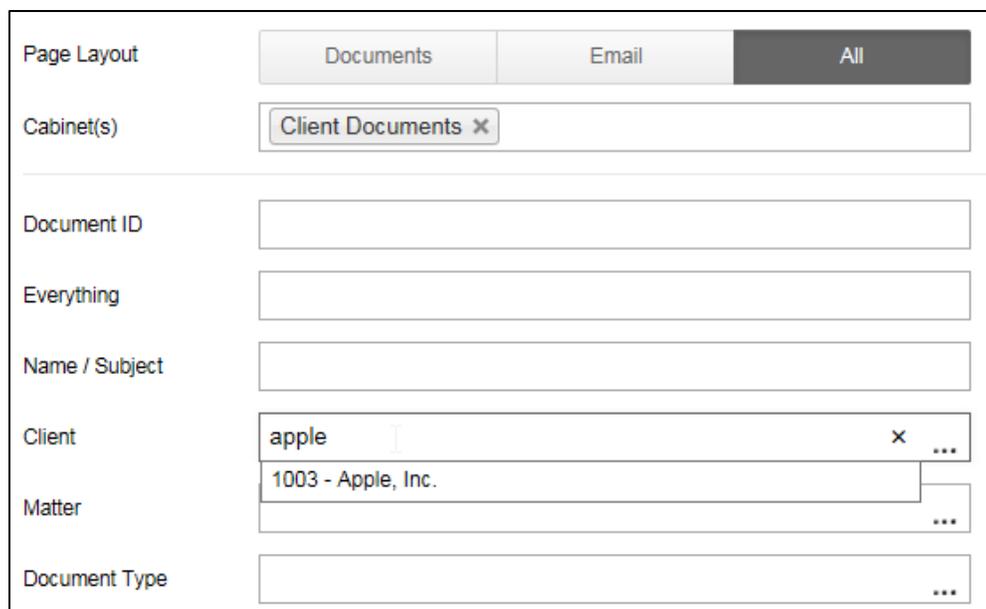
This field performs the same Name/Subject search that is available from the Quick Search bar.

Custom Profile Attributes

An administrator may define custom metadata (profile) attributes. Users can search on these fields from the Advanced Search page.

For example, a typical law firm will have a Client and a Matter attribute. These fields will have a lookup table of the firm's client and matter lists, which serves as a "pick list" of values to search on.

These fields also include a type-ahead feature. Users can click the ellipses (...) for more lookup options.



The screenshot displays the Advanced Search interface with the following elements:

- Page Layout:** Three tabs: Documents, Email, and All (selected).
- Cabinet(s):** A dropdown menu showing "Client Documents" with a close button (x).
- Document ID:** An empty text input field.
- Everything:** An empty text input field.
- Name / Subject:** An empty text input field.
- Client:** A type-ahead field containing "apple" with a close button (x) and an ellipsis (...).
- Matter:** A type-ahead field containing "1003 - Apple, Inc." with an ellipsis (...).
- Document Type:** A type-ahead field with an ellipsis (...).

Date Fields

Date fields are available on the Advanced Search page, such as the Created Date and Last Modified Date. A date field might also be a custom-created profile attribute, such as Document Date or Received Date.

Use the drop-down calendar to select a date. Users can enter a single date, or enter two dates to search within a range.

Relative Dates

Pre-defined relative date ranges are available from the drop-down menu:

These options will fill in a range of a number of days to create a relative date search. For example, selecting Last 7 Days will insert -7 and +0 to search for documents in the last 7 days. You can enter any number of days to search within that range, such as -90 and -60 will search for items created within a 30-day period more than 2 months ago.

This can also be useful when creating Saved Search criteria where the user will be returning to the search often and/or the actual date may be different each time.

Modified/Created By

These fields display the name of the user who created (imported) or modified the document.

Created by - The user account that created or imported a particular document or folder. This cannot be changed once it is set.

Modified by - The most recent user account that edited that document's content. It will change only when that document is modified again.

You can search in these fields by entering part or all of a user's display name. When searching these fields, it is important to distinguish these display names from the Author or Username.

For example, in the image below, the user could change their display name (first/last name) from Robert Duncan to Bob Duncan. Notice, the Username is still "rduncan." Everywhere else (in fields such as Created By or Modified By), the user name will now display as Bob Duncan.

Personal Information

Your email, name, phone, and organization are used by other NetDocuments users to identify an account.

First, MI, Last	Robert	-	Duncan
Company/Organization	Adams & Adams LLC		
Phone			
My email address	robert@adamsllc.com		

Username ([Edit](#)): rduncan
Registration date: 9/23/2010 8:47:59 AM

Please notify me of events, product releases, and special offers.

(Changes may not take effect immediately.)

If the display name is changed, it will not affect existing documents that were created/modified when the user had their old display name. So, there may be some documents created by Robert Duncan and other documents created by Bob Duncan.

Users can click the “Me” link to insert their own display name:

The screenshot shows a search filter interface with four rows:

- Created / Imported by:** A text box containing "Robert Duncan" and a blue "Me" link to its right. A red arrow points to this "Me" link.
- Created / Imported date:** Two empty date input boxes separated by a hyphen.
- Modified / Sent by:** An empty text box and a blue "Me" link to its right.
- Modified / Sent date:** Two empty date input boxes separated by a hyphen.

 To the right of the "Created / Imported by" field is a callout box with the text: "Search by the person that created an item using their NetDocuments display name. You may use their first name, their last name, or both."

You can also search for part of a name using Boolean operators, phrase searching, or wildcards within these fields just as you can in the Everything or Name/Subject fields.

File Extensions

You can search for documents by file extension (docx, pdf, etc.) including NetDocuments Items such as folders and Saved Searches.

Filter by documents only, emails only, folders only, or a specific type(s).

Documents Only will search all file types, except emails, Saved Searches, and folders.

Email Only will narrow the search criteria to include only msg and eml file types.

Folders Only will return only NetDocuments Folders (ndfld file extension).

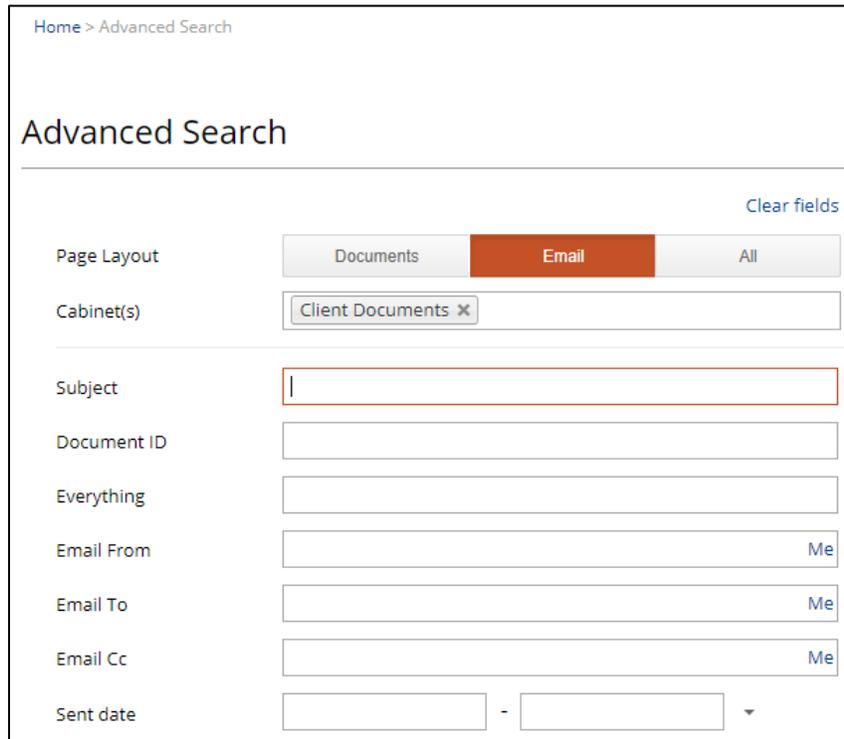
Under **Other...** you will find commonly used file extensions. Select one or more application file extensions. NetDocuments proprietary items (such as Calendar Events, Discussions, folders, and Saved Searches), each have their own file extension. See table at right.

Item	Extension
Discussion	nddis
Filter	ndflt
Folder	ndfld
Saved Search	ndsqs

You can enter any valid file extension to refine your search based on a file extension. Your result will contain only documents for the extension selected. You can search for multiple file extensions at the same time.

Searching Email Messages

Users can quickly execute a search for email by selecting the email search layout.



Home > Advanced Search

Advanced Search

[Clear fields](#)

Page Layout: Documents | **Email** | All

Cabinet(s): Client Documents x

Subject:

Document ID:

Everything:

Email From: Me

Email To: Me

Email Cc: Me

Sent date: -

Users will be able to search for emails by From, To, and Cc fields. These fields behave similar to the Created By/Modified By fields.

Enter a Sent Date to search for emails sent on a certain date or within a date range.

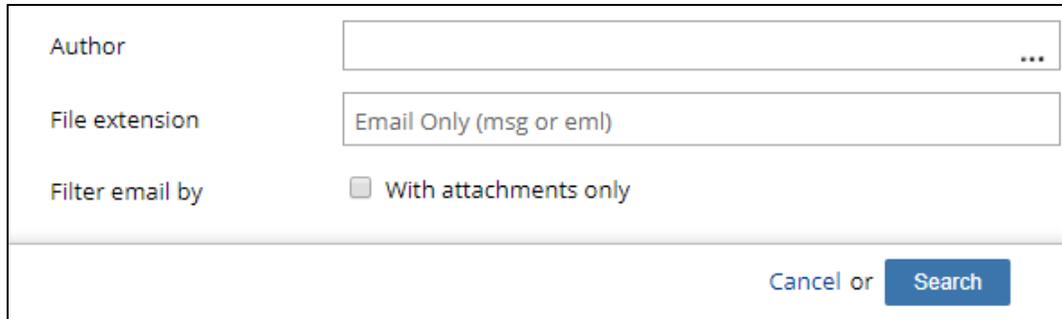
Using the Imported By and Imported Date fields users can find emails based on when and by whom the message was archived. This is the same as the Created By and Created Date fields.

Sent By vs From

NOTE: The Sent By field is the same as the Modified By field, whereas the From field will only display when that information is extracted from the message header. In most cases these two fields will match.

Attachments

Users can filter search results by emails that have attachments. Check the box to filter email “with attachments only.”



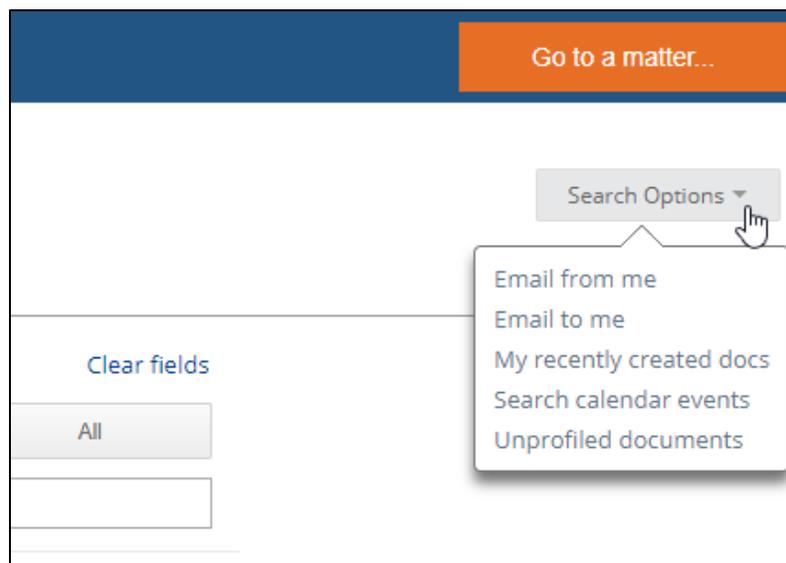
Author

File extension

Filter email by With attachments only

Cancel or

Using Search options from the Advanced Search page, users can run searches for Email from Me or Email to Me.



ShareSpaces

You can find documents that are in a ShareSpace by searching the ShareSpace name. ShareSpaces that do not contain documents cannot be searched. When a ShareSpace is created, it should contain at least one document in it in order to locate it, or the ShareSpace should be filed in a folder or on a workspace to be found through navigation.

Searching Deleted Items

Items that have been marked as deleted have their access list removed and the user who deleted it retains VESA access. As a result, when searching for deleted documents, users will only see those documents they have deleted. If they are a cabinet administrator then they will see all deleted items.

When searching for deleted items, only one cabinet can be selected at a time.

After locating a deleted item, it can be either undeleted or purged (permanently deleted).

Incomplete Profiles

By checking the “Incomplete profile” checkbox, users can find those documents that have at least one empty profile field that is set to “prompt if empty”. For example, if any documents do not have an assigned Document Type, and the Document Type attribute is a field that users are prompted to complete, then those documents will appear in the search results.

Checked Out Documents

You can search for documents that are checked out, and can narrow the criteria further by date or by user.

The screenshot shows a search filter panel with the following elements:

- Filter by:** Two checkboxes, "Deleted items only" and "Incomplete profile", both of which are unchecked.
- Checked out status:** A checkbox labeled "Checked out" which is checked.
- Checked out by:** A text input field with a dropdown arrow on the right side, currently displaying "Me".
- Checked out date:** Two date input fields separated by a hyphen, with a dropdown arrow on the right side.

Customizing Search Pages

Users can customize the layout of the Advanced Search page, the Search Results page, and the Refinement Pane.

Advanced Search

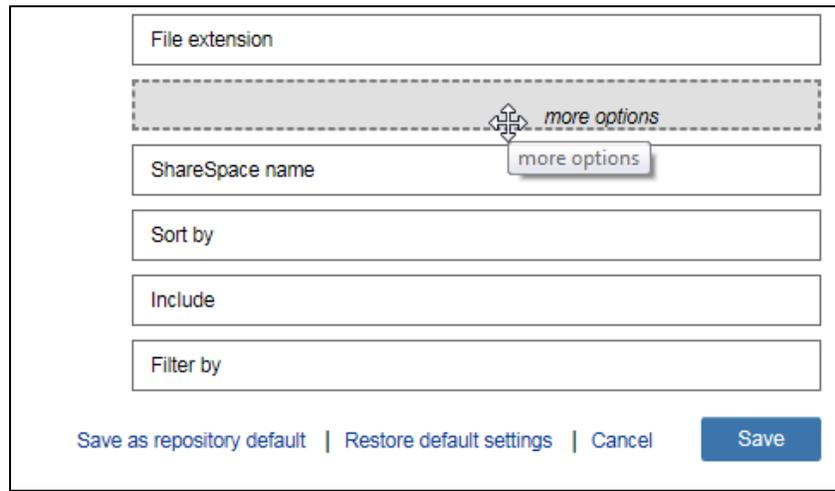
Users can drag and drop the fields into whatever order they wish. Users can select a layout for each of the page layout options - Documents, Email, and All.

The field at the top will be the active cursor field, meaning the cursor will default to that field when users visit the page.

The screenshot shows the "Page Layout" section of the search interface with the following elements:

- Page Layout:** Three tabs: "Documents" (selected), "Email", and "All".
- Cabinet(s):** A text input field with the placeholder text "Select cabinet".
- Field List:** A list of fields to be displayed in the search results, including "Document ID", "Everything", and "Name".
- Drag and Drop:** A dashed box highlights the "Document ID" field, and a mouse cursor is shown over it, indicating it is being dragged. A tooltip labeled "Document ID" is visible next to the cursor.
- Instruction:** The text "Drag to rearrange" is displayed to the right of the field list.

Users can select the placement of the More Options menu. Fields placed below the menu will be hidden on the initial advanced search page.



The screenshot shows a configuration window for advanced search fields. The fields are listed in a vertical stack: 'File extension', 'ShareSpace name', 'Sort by', 'Include', and 'Filter by'. A dashed box highlights the 'ShareSpace name' field, with a 'more options' button and a mouse cursor hovering over it. Below the fields, there are four buttons: 'Save as repository default', 'Restore default settings', 'Cancel', and 'Save'.

Search Results

The layout (Documents, Emails, All) that users select will determine the display format that is used on the search results page.

Refinement Pane

The fields listed in the left-hand Refinement Pane are determined by the order of the fields defined on the Advanced Search page. See *Search Refinement* below for more information.

Special Characters

Certain characters are interpreted by ndSearch in nuanced ways when they used in the search criteria.

Parentheses () are special characters that are reserved for search syntax operations. They cannot be used in any search criteria unless there is both an open and close parenthesis in the string.

Use curly brackets { } to designate an exact search. This means the criteria within the { } for that field will be searched exactly without variation. This is only supported within metadata fields, and is typically used within a custom profile field that uses a lookup table.

Punctuation and Symbols

Search fields are not case-sensitive—no distinction is made between uppercase and lowercase characters.

Common punctuation and symbols are disregarded when searching. This includes the following characters: ! , () [] { }. For example, “dallas texas,” “dallas! texas” and “dallas, texas” will all find “dallas, Texas” or “dallas Texas.”

Words with a single character and single digit numbers are not searchable unless they are in a profile field.

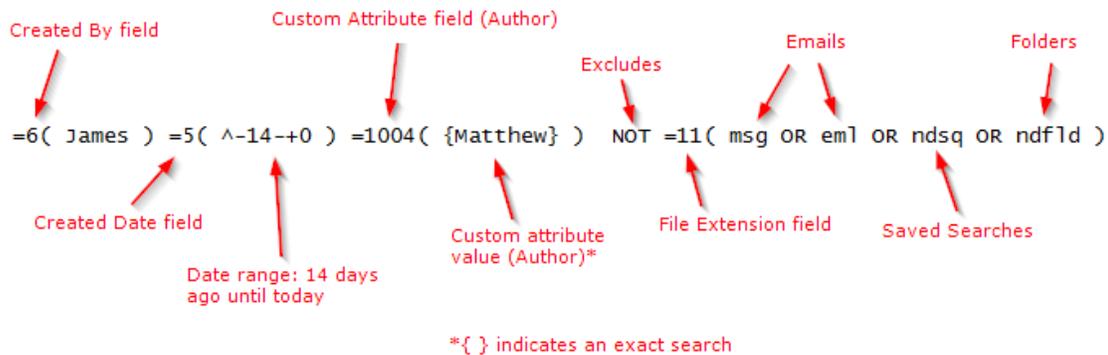
Understanding Search Criteria

Each search that you perform has criteria in the form of a string. This string uses a particular kind of syntax or structure. The criteria for a particular search can be found by going to Search Result Options > Show Criteria.

For example, on the Advanced Search page, if you enter the following criteria:

Page Layout	Documents Email All
Cabinet(s)	Client Documents x
Name	
Document ID	
Everything	
Client	...
Matter	...
Document Type	...
Author	{Matthew} ...
Created by	James Me
Created date	-14 - +0 ▾
Last modified by	Me
Last modified date	- ▾
File extension	Documents Only x

The resulting search criteria syntax will appear as follows. We've broken it down for you:



As you can see, this search is returning all items (except email messages, Saved Searches, and folders) that were created by James in the past 14 days, and that have Matthew as the Author.

Note that the search criteria above is searching for *all* file types *except* emails, saved searches, and folders (indicated by the NOT search operator in front of the field identifier).

Each field has an identifying number associated with it, and the criteria for that field is shown in parenthesis. See Appendix B – Search Field Identifiers for a list of search field identifiers.

Note that the sample criteria above contains one or more of the following:

- field identifiers
- the search criteria or values for each field within parenthesis
- brackets { } indicating an exact search
- Boolean search operators (Learn more about Boolean searching below)

You can use these elements of search criteria syntax to create your own custom Saved Searches.

See Appendix D – Searching Examples for additional examples of search operations.

Search Methods and Operators

Phrase Search

Use quotation marks to search for a phrase (two or more words). For example, "United States" will search for this word combination wherever the two words appear together.

Proximity Search

This feature allows users to find a word within a certain number of character spaces from another word.

A search for (IBM w/4 HP) would find "IBM" where it appears within four words of "HP".

NOTE: You can also drop the w and use /4 such as IBM /4 HP.

NOTE: Using wildcards with proximity searches may not always return results when including commonly used words.

NOTE: Boolean searching is not supported when using a proximity search.

Boolean Operators

Boolean operators (AND, OR, NOT) are used in nearly every search engine, and can be extremely useful in ndSearch.

AND – used to find documents where two words or phrases are found together. To find documents that have the words "nations" and "states" use the criteria "nations AND states". If a document contains only one of those two words, then it will be excluded.

OR – used to find documents where one of two words or phrases can be found. To find documents that have either "america" or "united states" you would search ("america" OR "united states").

NOT – used to find documents where a word or phrase does not exist, or to exclude documents where that criteria can be found.

Using Booleans Within and Between Fields

The criteria below was generated by entering John Doe in the Modified By and Created By fields, and selecting Documents Only.

=6(John Doe) =8(John Doe) =5(^-90-+0) =7(^-120-+0) NOT =11(msg OR eml OR ndsq OR ndfld)

However, this returns items created AND modified by John Doe. This is because by default the AND operator is used *between* fields on the Advanced Search page.

When searching multiple custom profile values *within* a field using a lookup table, ndSearch will automatically insert OR between the values:

=1002({1234}) =1003({301} OR {302})

The following criteria would not work because NOT is used as a unitary operator when used *within* a field:

```
=11( NOT msg OR eml )
```

Exclusive Searches

Booleans are not unitary search operators when used within a field. This means they require two search terms, one on either side of the operator. So, a user cannot search (OR England) or (NOT Asia) or (AND Bermuda).

Because NOT is not a unitary operation, it would require searching for something else first, such as:

```
=3( United NOT States )
```

However, unitary Booleans are supported when placed *prior* to a field identifier, or *between* fields when creating custom criteria. Say, for example, you want to search all clients but exclude certain ones. You could enter the clients you want to exclude, then manually add NOT to the search criteria as follows:

```
NOT =1001( {1835} OR {1845} )
```

By default, the file extension field uses a unitary NOT to search for all file types unless otherwise specified. A search that returns all file types but excludes email messages would look like this:

```
NOT =11( msg OR eml )
```

However, the following criteria would not work because a file cannot have both an msg and eml extension at the same time:

```
NOT =11( msg AND eml )
```

```
=11( msg AND eml )
```

Wildcards

Wildcard characters are available to use in place of unknown or variable characters.

Use ? as a single character replacement wildcard.

```
f?st – would find the word fast or fest or fist, etc.
```

```
Anders?n – would find Anderson or Andersen.
```

Use an * as a wildcard representing one or more characters when searching a character string. See examples below.

```
document* – would find documents, documentation, etc.
```

```
d* – would find anything starting with a d.
```

do* – would find anything starting with “do”.

*port - would find words that ended in “port” such as “Newport” or “rapport”.

* can be used as a multi-character wildcard, but use wildcards sparingly. Searches that include too many wildcards can have a big impact on performance. Whenever possible, put several characters before the wildcard. For example, (john*) is much better than (j*).

NOTE: You will get a message that says "wildcard count exceeded" if your wildcard search is too broad. If your wildcard term could generate too many possible search terms, the search will not be performed. In that case, narrow your search criteria or add more characters.

NOTE: Wildcards cannot be used within a phrase search.

Search Intelligence

When performing full-text or content searches, users have an additional search capabilities to find alternate word forms. This enables lemmatization and stemming. For example, a search for *mice* will find *mouse*.

To enable this, users must check the box for “Alternate word forms” on the Advanced Search page.

Search Results

Results of a search are displayed in a list on the Search Results page:

Home > Search Results

Search Results ▾

100+ items | 0 selected ✉ Email copy ✉ Deliver a secured link ✎ Rename

<input type="checkbox"/>	Name	Created by	Last modified date ↓	Document ID
<input type="checkbox"/> ★ 	Adaptive skill of expertise - NEW journal of applied research in memory and cognition 7 (2018) 35-50 contents lists available at sciencedirect journal of applied research in	v1 Camrin Schroyer	4/27/2018 7:22 AM	4828-8174-0899
<input type="checkbox"/> ★ 	Adaptive skill of expertise journal of applied research in memory and cognition 7 (2018) 35-50 contents lists available at sciencedirect journal of applied research in	v1 NetDocuments Trainer	4/16/2018 10:34 AM	4844-9513-2003
<input type="checkbox"/> ★ 	Aircraft Administrative and Flight Services Agreement - Rosemont P... this section 10; and (iii) any right to direct damages arising in contract from a breach of the... this section 10; and (iii) any right to	v3 Jeff Kaplan	2/15/2018 7:29 PM	4833-2435-1316

Sorting

Users can click any column heading to change the sort order of the results.

The Advanced Search page also provides an option at the bottom of the page to sort the search results. The default sort is set to sort by Modified date. You can change it to sort by Relevance, Name, or a personalized sort. Users can set the default option by checking “Make this my default sort”.

NOTE: Sort by Relevance is only available when using the All Attributes field or the Quick Search bar.

- **Relevance** – this option places items at the top which match the criteria the most.
- **Modified Date** – sorts in chronological order
- **Name** – sorts alphabetically by Name
- **Personal** - This will sort items higher in the results in which the current user is in the Author, Created By or Modified By fields (for documents), or Sent To, Sent From, Imported By fields (for email).

Access Rights

You will only be able to search for documents for which you have at least V access. Documents to which you do not have access will not appear in the search results.

Saving a Search

Users can save a search for later reference. This has the effect of saving the search criteria rather than the results of the search. The result of the search will be changed dynamically as the documents are updated, modified, or otherwise changed.

A Saved Search is a powerful tool for dynamically searching, managing, and grouping documents together across one or many NetDocuments Repositories or Cabinets. Unlike folders, where documents

are filed manually, Saved Searches provide a flexible way to locate documents on a specific topic, even if the user doesn't have a specific document in mind. Saved Searches are ideal for large organizations with a higher volume of documents existing across Cabinets and Repositories.

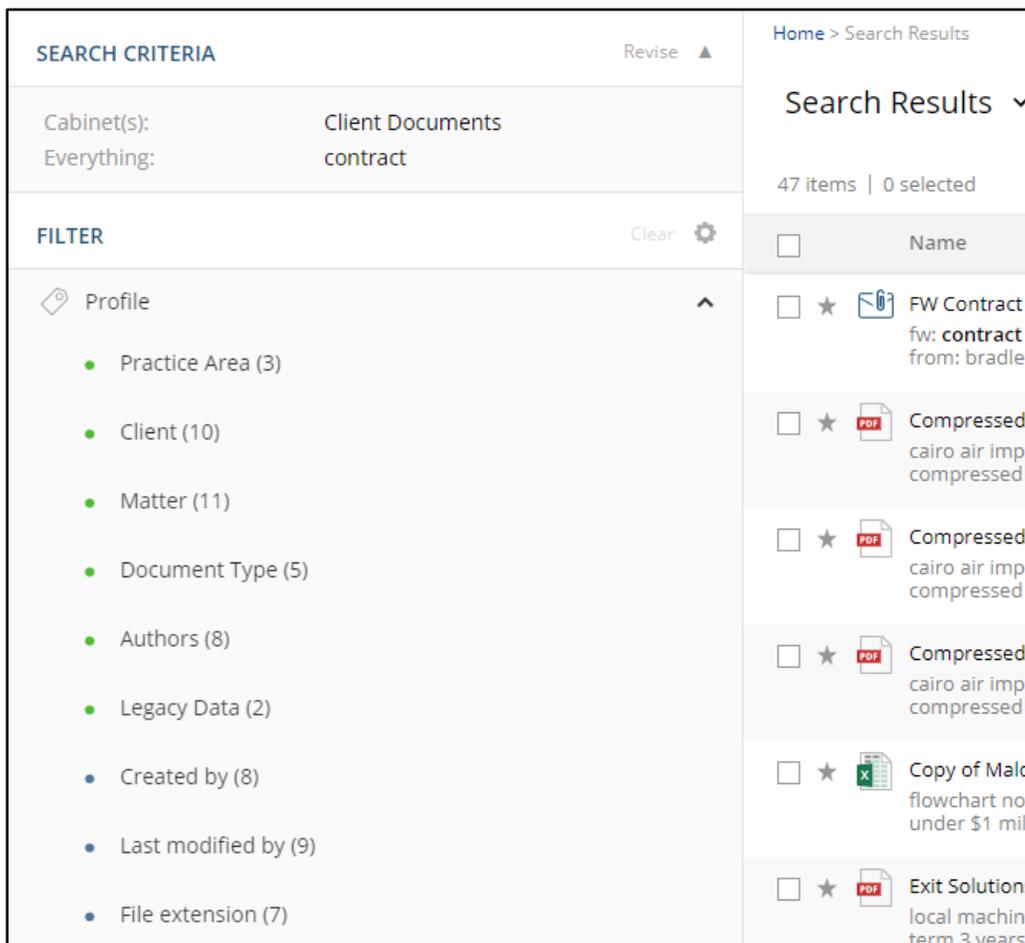
Saved Searches are most powerful where documents have a custom profile, such as Client, Matter or Office. Documents that have been profiled can be easily categorized and dynamically located and grouped into a saved Search for immediate access.

To create a Saved Search, a user first does a search, then saves and names that search for future reference. It is filed into a folder or workspace as if it were a separate document or folder. Each time a saved search is accessed, it performs the search to display all documents that match that search criteria.

Search Refinement

This feature provides users with metadata analysis and filtering of search results. It is designed to expose more metadata for users to easily narrow search results based on selected criteria.

This panel allows users to select from the available metadata returned in the search to further refine the original search results.



To apply a metadata filter to search results, select a field from the left-hand side. The pop-out will allow users to select one or more values among those returned by the search.

SEARCH CRITERIA Revise ▲		CLIENT		
Cabinet(s):	Client Documents	Search Client <input type="text" value="Search Client"/>		
Everything:	contract	<input type="checkbox"/> Client	Description	Items ↓
FILTER Clear ⚙		<input type="checkbox"/> 1836	Samuel Houston	13
Profile ▲		<input type="checkbox"/> 1858	Stephen Douglass	13
● Practice Area (3)		<input type="checkbox"/> 2011	Jon Huntsman Jr	7
● Client (10)		<input type="checkbox"/> 1006	Allen Richards	5
● Matter (11)		<input checked="" type="checkbox"/> 1002	All American Manufacturin...	2
● Document Type (5)		<input checked="" type="checkbox"/> 1003	Markus Allen	2
		<input type="checkbox"/> 1860	Abraham Lincoln	2

To add a new search term, simply revise the original search on the advanced search page.

Content Analysis

This feature is scheduled to be released in 2018.

Search Result Options

Users have various options available to them from the drop-down menu, to perform on the results of the search.

Copy all results - this allows you to copy all the items in this search to another cabinet.

Delete all results - this will delete all documents in the result page you have rights to delete. For an Administrator this will delete up to 10,000 in a result.

Edit profiles - edits the profile of all the documents in the search result up to 10,000 items.

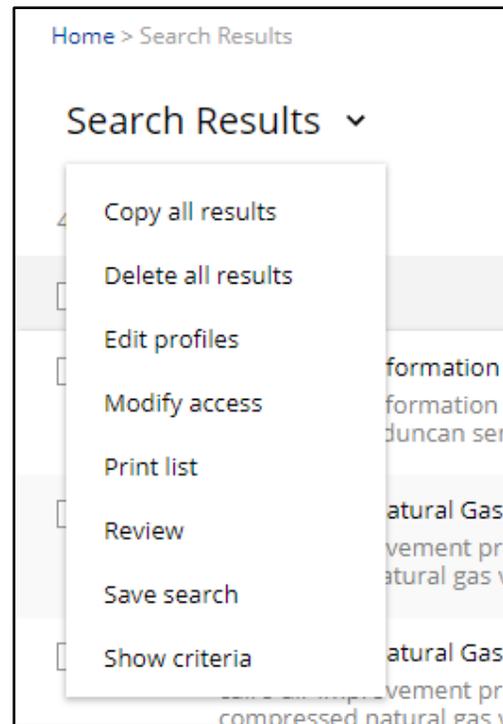
Modify access - this allows administrators to modify the access list of all the documents in the search result list up to 10,000 items.

Print list - prints the list of items contained in the search result up to 500. For an Administrator this will print up to 10,000 in a result. You will be emailed a list.

Review - opens the documents in the Review window where users can Rename or file the document(s) in another folder.

Save search - this option lets you save the search results as a Saved Search so it can be easily re-used.

Show criteria - displays the detailed search criteria entered for the results shown. Learn more below under *Understanding Search Criteria*.



Some of these options – Edit Profiles, Modify Access, and Delete Results - are only available to Cabinet Administrators when searching within a single cabinet.

Cabinet Administrators receive implicit View, Share, and Administer (VSA) rights for all items in any cabinet they are administering. If they are also a member of a group that by default has E (Edit) rights to that cabinet, they will have full access rights (VESA) to all documents in that cabinet that include the cabinet default as part of their access list. If an item exists in that cabinet, and does not have the cabinet default access applied, a Cabinet Administrator will still have VSA access to that item. Cabinet Administrators cannot be locked out of any item in a cabinet that they are administering.

Edit Profiles

This option allows administrators to edit the profiles of every item in the search results, up to 10,000 items at a time.

Administrators will be taken to an Edit Profile page. The Edit Profile dialog will be blank. Here you can select the value(s) that you would like to change (make sure all other fields you do *not* want to change are blank).

Home / Edit Profile/Tags

Edit Profile/Tags Profile Templates ▾

* indicates that an entry is required. # indicates an entry that affects security.
Leaving a custom field blank will not change existing profile values.

Clear Profile Restore original values

Client * # ▾

Matter * # ...

Doc Type * ▾

Author * ▾

Comments

Save As Template Validate

All 8473 matching items will have their profiles updated. A confirmation message will be emailed to you when processing is completed.

Continue

Enter the new value(s) in the attribute you want to change. Any values that you enter will be placed into the profiles of the selected documents regardless of values that may already be present in those documents' profile fields. In other words, it will replace any existing values.

To remove a value without replacing it, you can type in "NO VALUE" (with quotes and all caps). Click OK and the value will be cleared. If the field is a drop-down menu, you will have an option to choose "NO VALUE" for that field and it will cause that field to be empty.

Once you click the "Continue" button, the documents will be processed in the background so that your browser window will not be tied up and you can continue working. You will get a confirmation email when all of the profiles have been changed.

This process will handle up to 10,000 items at a time so if your search results contain more than that amount, you may need to adjust your search criteria such that each batch contains 10,000 items or less.

Modify Access

Administrators can change the access list for all documents matching a search criteria. The option allows adding to, subtracting from, or completely replacing the existing access list for documents returned in the search.

From the Search Results page, the administrator goes to Search Result Options > Modify Access to change up to 10,000 items at a time. This process can take several minutes depending on the number of documents requested. The option will be completed as a background process and you will be sent an

email when it completes. The email will include a number showing how many items were changed and any errors encountered.

Delete all results

On the Saved Search and Search Results pages, if the user is a Cabinet Administrator for all the cabinets included in the search criteria, an option is available to “Delete all results.” If this option is selected, the following dialog will be displayed:

Mass Document Deletion

WARNING: This action cannot be undone!

All 8473 matching items will be deleted **permanently**. A confirmation message will be emailed to you when processing is completed. To proceed, type the word DELETE in the following field and then click OK:

WARNING: These items were not previously deleted!

Cancel or

The administrator must type the word “DELETE” in the box in order to proceed with the mass deletion. This action will **purge** the items in the search results.

Recovering Deleted Items

From the search results page, users can select any number of deleted items and click Undelete from the More Options or Group Options menu. A user has the option to restore the items to the cabinet (unfiled) or choose to file the items in a specific folder.

Purged Items

Deleted items can be permanently deleted (purged) from NetDocuments. These items cannot be recovered once purged.

NOTE: A Cabinet Administrator can 1) allow any user to permanently delete items or 2) allow only Cabinet Administrators to permanently delete items. We recommend that this flag be set so only Cabinet Administrators can permanently delete documents.

To permanently remove items (documents) from the cabinet:

1. Use the Advanced Search to locate the deleted items by checking the Deleted Items box and adding any other selection criteria you choose.
2. Select the items to be permanently removed.
3. From the **More Options** menu, click **Delete**
4. Choose **OK** to confirm

NOTE: Once an item is permanently deleted from the cabinet, it is not retrievable from anywhere.

Appendix A – Indexing Priorities

This table lists the indexing priorities for various actions and items. Lower numbers designate higher priority items (they get indexed sooner).

Priority	Action/Item
50	newly created folders and workspaces
100	normal user usage: new documents, changes, etc.
120	EMS
130	ndAPI actions, move to Deleted Documents
140	Mass ACL Change
150	Folder Import
180	In-bound mail documents
200	ndImport
300	newly enabled repository requests
400	normal user deletions
500	cabinet deletion; remove user from cabinet

Appendix B – Search Field Identifiers

This table lists each search field identifier or number. Some identifiers cannot be used through the web UI, but are available in the REST API.

NOTE: The Everything field does not have a field identifier as it searches all fields.

Identifier Number	Field	Comments
999	Document ID	is a database lookup, not technically a search
X	Custom profile fields	X = 1000 + Field ID (1001, 1002, 1003, etc.)
3	Name/Subject	
4	ShareSpace Name	
5	Created Date	
6	Created By	
7	Last Modified Date	
8	Last Modified By	
10	Cabinet	GUID in []
11	File extension	.docx, .pdf, ndfld, etc.
12	Calendar start and end dates	
13	is Top-level Folder	Cabinet GUID in []
14	is unprofiled	cabinet GUID in []
15	is deleted	cabinet GUID in []
17	email To	
18	email Cc	
19	email From	
20	is filed in folder	Folder envurl in { }
27	has attachments	If anything is included in this field, only documents with attachments will be returned.
28		returns file extensions of email attachments
29		returns # of email attachments
52	ACL Freeze	=52(frozen) will return items with the ACL Freeze flag set
54	Checked Out By	
55	Checked Out Date	
56	Checked Out	

Appendix C – Searching Strategies

In general, there are four generic strategies that users employ when searching. These strategies can be employed with any search engine, but are naturally facilitated by different NetDocuments search features. In conjunction with the search examples in Appendix D, these can be used to design learning tasks to train end-users to use ndSearch.

Browse

I want to explore to see what's available. I usually use a keyword or full-text search. I tend to make broad searches first, then narrow the search gradually. This method works for me because I don't know exactly what I'm looking for until I find it. I use the Quick Search often, and then use the Refinement Pane to narrow my search based on what I find.

Find

I want to locate something specific. I enter a specific description of the item I am looking for. I want to navigate to the item with as few steps as possible, avoiding distractions. I need a way to facilitate repeated searching, and want to be given alternatives when I arrive at the target so I can easily find related items.

I usually start with specific criteria using a name/subject or metadata search. I use words or phrases that I believe might be in the document's text, name, or profile.

I often want a specific type of document, so I use the File Extension field.

Query

I want to see items that meet my criteria. I need help in creating a query without requiring technical knowledge such as formulating query syntax.

I love Saved Searches, where I can also narrow an existing search with further criteria.

Structured

I want to be led through a series of choices to help me narrow my focus. I want to easily back-track when a branch of choices is not successful.

I love to use the search refinement pane and the navigation pane because they give me context of where I am, and allow me to easily add or remove criteria, or navigate through large amounts of data.

Appendix D – Searching Examples

The following are some examples of search operations. These sample tasks can be used to design training and/or instruction for end-users. They are ordered in sequence of increasing complexity.

Each example describes problems that an instructor can anticipate that learners will encounter during the task, and includes examples of specific scaffolding means the instructor might employ to guide the learner to correct performance and to support knowledge integration.

Prior to engaging in the learning tasks, supportive information should be provided to learners to help develop appropriate mental models of the search engine – content vs metadata, indexing, and the search fields available. This is to help learners call to mind relevant prior knowledge about search engines. Procedural information about how to navigate through the search page user interface should be provided throughout the training.

Example 1 - Use search bar to find a document by a key word in the name

The learner enters the word (contract) into the search bar. The learner should select Name/Subject (subject search) rather than Everything (keyword or full-text search).

A question or prompt could be given by the instructor as to whether the task calls for a subject (metadata) search or a keyword (content) search.

Additionally, a learner could do a full-text search, but would have to manually look through the results to find those documents with the word in the name. This is a weak or less effective method.



Example 2 - Find a document by content using snippets

In a content or full-text search, the learner enters a keyword in the Everything field, which searches across all fields, including the text or content of the document. Snippets of the document's content are shown, while highlighting the key word in the content:

Home > Search Results

Search Results

<input type="checkbox"/>	<input type="checkbox"/>	Name ▾	Modified by	ID	Modified ...
<input type="checkbox"/>	★	 Collateral Trust Agreement - Sunedison, Inc. v1 whether through the ability to exercise voting power, by contract or otherwise. "controlling" and	Russell Duncan	4843-1604-2068	11/21/2017
<input type="checkbox"/>	★	 Lease Agreement - Appendix C v4 land sale contract the first party (henceforth known as "buyer") agrees to purchase from the second... public record) this contract is executed on {date}, {year}. the following terms and conditions... end of contract : the entire balance must be paid by the {date} of {month}, {year}. if there is a	Katheryne Patterson	4824-8483-5156	8/1/2016
<input type="checkbox"/>	★	 Consent to Sublease Recognition Agreement and Amendment to Lease - Broadpoint Securities Group, Inc. v1 subtenant shall create or be deemed to create any privity of contract between landlord and subtenant. 18.	George Brent	4830-4543-0100	5/13/2016

Learners may have to enable snippets in their Settings menu. A hint could be given to these learners to do so. If learners don't need snippets, it can be turned off, which will allow them to not have to scroll so far to see all the results in the list.

Here, it is important for instructors to mark critical surface and structural features of ndSearch in order to promote effective knowledge integration. A common misconception is to treat the full-text "Everything" field like a Google search. This is where it becomes crucial for the instructor to help learners understand the nuances between an intelligent search like Google and a full-text search like ndSearch. Unlike Google, the Everything field can't be used to enter a question, does not consider the user's past search history or web browsing history, and does not consider location or language. In Google, users may be used to the desired results being on the first page. ndSearch does not have as much intelligence. While some advanced searching capabilities are included, such as lemmatization and stemming, ndSearch does not provide hints to correct for typos or provide commonly used search criteria based on other users' activity.

Additionally, although Google is a prolific search engine, it too does not search *all* Internet content. In order for Google to return a webpage, that webpage must first be indexed by Google. So it is with ndSearch, especially when it comes to a full-text or content search. For example, a user might scan a document, save it as a PDF, then import it to the database. While the document's profile and metadata (name, Author, created date, etc.) will be indexed almost immediately, the content might not be indexed at all if it can't be read by the indexer. A scanned document will need to be converted to an OCR-compatible format in order for the content to be searchable.

In a case where a document is not full-text searchable, an instructor might prompt learners to think of other ways to find a document, with the intent to control their frustration. Even if a document is not full-text searchable, there are still many other ways to locate the document.

Example 3 - Find a Word file with agreement in name

Building on what they did in Task #1, a learner would enter the search criteria in the Name field, either from the Quick Search bar, or on the Advanced Search page. The differences in approach might be due to the user's preferences or goals in selecting a general search strategy (see Appendix C).

If beginning from the Quick Search bar, the user would then need to use the Search Refinement Pane to filter the results by File Extension.

If beginning the search from the Advanced Search page, the user would use the file extension field to select .doc and .docx files.

It might be common for users to just select "Documents Only" but while this would include Word file formats, would also include many other file types. In this case, because the user knows they are looking for a Word file, it would be much more effective and efficient to select the file extension.

Example 4 - Find documents with phrase "united states"

In this case, because the user is looking for the phrase wherever it might exist, the Everything field is preferred over the Name field.

The instructor may remind learners that capitalization is ignored in ndSearch, so "United States" is the same as "united states".

An instructor might remind learners that a phrase search will not find alternate words such as "unite states" or "union station" even if "alternate words forms" is enabled.

Example 5 - Find documents with "motion" but exclude documents with "dismiss" in the name

The learner should enter *motion NOT dismiss* in the Name field:

SEARCH CRITERIA Revise ▲		Home > Search Results	
Cabinet(s):	Client Documents	Search Results ▼	
Name:	motion NOT dismiss	4 items 0 selected	
FILTER Clear ⚙		Name	
📍 Profile	^	<input type="checkbox"/>	★ Affidavit in Support of Motion for Summary Judgment in Lieu of Co...
● Practice Area (2)		<input type="checkbox"/>	★ Agreed Motion for Continuance SMTV(4)_1 - Copy
● Client (4)		<input type="checkbox"/>	★ Motion (copy)
● Matter (4)		<input type="checkbox"/>	★ USX Corporations Motion to Sever for Misjoinder and Original Answ...

It might be common for learners to put quotation marks around the entire phrase "motion NOT dismiss" but this would perform a phrase search that would return all three words in that order. The instructor should provide a hint or prompt for the learner to recall the function of a phrase search.

If they put quotes around “motion” and “dismiss” it is acceptable, but because it is also a phrase search, learners must understand that it will not find documents with “motions” or “emotional” in them when using alternate word forms.

Learners might also use the less effective method of using the Everything field to perform this search. While this may return the desired document, it would return many others as well because a full-text search will search all content, not just the documents’ Name. Learners can easily narrow the search results by using the Name field.

Example 6 - Find documents created by a user two weeks ago

To find documents edited or modified by another user two weeks prior, a learner should select Documents Only, enter the name of the user in the Last Modified By field, and then enter -14 and -14 as the date range. This means it will return all documents edited not more than 14 days ago, but not less than 14 days ago.

A learner might make the mistake of entering -14 and +0 in the date range, but this would return documents edited any time in the past two weeks, including the current day.

Alternatively, learners might enter the exact date (4/14/2016) rather than the relative date of -14. This is acceptable, unless they plan to return to the same search criteria at a later time.

At this point, instructors should mark critical features by pointing out to learners how the search criteria is available after performing a search. Each search field is identified by a number, with the associated criteria in parenthesis. Questions could be asked by the instructor to prompt learners to explain or interpret the criteria they see.

Example 7 - Find all emails with attachments sent by a user last week

A learner should select Emails as the layout, and then enter the user’s name and a date on the advanced search page. At the bottom of the page, they should select “has attachments”. The criteria will look like this:

```
=8( John Doe ) =7( ^-7-+0 ) =11( msg OR eml )
```

Alternatively, the user can run a broad search based on any of the required criteria, then use the search refinement pane to filter the results by the remaining criteria.

Example 8 - Find the most recently created PDFs by two different Authors

This search would be performed more easily by using the Search Refinement pane, allowing the learner to select two specific Authors from among the returned results. Also, the learner could use the Refinement pane to specify a PDF file type.

SEARCH CRITERIA	Revise ▲	AUTHOR												
Cabinet(s): Client Documents		Search Author <input type="text"/>												
File Extensions: pdf														
FILTER	Clear ⚙	Author												
<ul style="list-style-type: none"> Profile Client (8) Document Type (13) Matter (11) Comments (37) Author (5) 		<table border="1"> <thead> <tr> <th>Description</th> <th>Items ↓</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/> aah</td> <td>Alan A Houston 27</td> </tr> <tr> <td><input type="checkbox"/> dbh</td> <td>David B Haggan 26</td> </tr> <tr> <td><input type="checkbox"/> db</td> <td>Doug Brown 17</td> </tr> <tr> <td><input checked="" type="checkbox"/> asm</td> <td>Allison S Madson 8</td> </tr> <tr> <td><input checked="" type="checkbox"/> dtm</td> <td>Debra Moulton 4</td> </tr> </tbody> </table>	Description	Items ↓	<input type="checkbox"/> aah	Alan A Houston 27	<input type="checkbox"/> dbh	David B Haggan 26	<input type="checkbox"/> db	Doug Brown 17	<input checked="" type="checkbox"/> asm	Allison S Madson 8	<input checked="" type="checkbox"/> dtm	Debra Moulton 4
Description	Items ↓													
<input type="checkbox"/> aah	Alan A Houston 27													
<input type="checkbox"/> dbh	David B Haggan 26													
<input type="checkbox"/> db	Doug Brown 17													
<input checked="" type="checkbox"/> asm	Allison S Madson 8													
<input checked="" type="checkbox"/> dtm	Debra Moulton 4													

Alternatively, learners could enter the two Authors directly into the Author field prior to running the search. Because this approach uses multiple values in a single custom attribute field, an OR will be automatically inserted between the values.

Again, the differences in approach might be due to the user's preferences or goals in selecting a general search strategy (see Appendix C). Trainers may present both options and allow users to choose the approach that best meets their goals or preferred strategy.

Example 9 - Exclude email messages that have attachments

By default, a search for email will find any email message, whether it has attachments or not. Supposing you wanted to find only emails that do *not* have attachments.

Here, an instructor may ask a question asking the user to apply what they know about Boolean operators.

The learner should run a search for emails that *have* attachments, then customize the search criteria by adding NOT before the =27 field identifier.

NOT =27(1) =11(msg OR eml)

Example 10 - Given a document, formulate 3 different search queries that will return the document in the first 20 results

By now, learners should have a basic understanding of search criteria syntax in ndSearch. In prior tasks, instructors should have marked critical features of the search criteria for each task, such as field identifiers and placement of parenthesis.

This task demonstrates to learners how multiple search methods can be used to find the same document.

For this task, learners are shown the document displayed at the right.

Learners must determine how to construct a search that will find this document based on the information given (assuming they do not actually have the Doc ID).

First, a learner should make note of the key information – unique words in the name, the file type, dates, and customer profile information.

Knowing that search result lists are sorted by Last Modified Date by default, it could be effective to first search by the Modified Date of the document.

The screenshot shows a document preview window with the title "AC & S Inc. Demand for Jury Trial". It has two tabs: "Preview" and "Details". The "Details" tab is active, showing "PROFILE DETAILS" with the following information:

- Created by: NetDocuments Trainer 10/4/2017 12:31 PM
- Modified by: NetDocuments Trainer 10/4/2017 12:31 PM
- Type: Microsoft Word (.docx)
- Size: 14 KB
- ID: 4810-5805-5761 (Version 1)
- Client: 1012 - Judith Barron
- Matter: 011 - Peterson, Andy's Estate of Judith Barron
- Document Type: CORR - Correspondence
- Author: DB - Doug Brown
- Comments: C:\Case Study Data\Client Documents\Douglas Bro
- Status: None

Suppose this search was too broad, because it also returned several folders, emails, and images. To adjust the search, a learner should specify Documents Only, which excludes folders and emails:

Search Results ▾

300+ items | 1 selected ✉ Email copy ✉ Deliver

<input type="checkbox"/>	Name	Created by	Last modified date ↓
<input type="checkbox"/>	★ 30 characters name with spaces	v1 NetDocuments Trainer	4/25/2018 2:13 PM
<input type="checkbox"/>	★ NPT attendees April 2018	v1 NetDocuments Trainer	4/25/2018 1:56 PM
<input type="checkbox"/>	★ NPT attendees April 2018	v1 NetDocuments Trainer	4/25/2018 1:53 PM
<input type="checkbox"/>	★ NPT attendees April 2018	v1 NetDocuments Trainer	4/25/2018 1:52 PM
<input type="checkbox"/>	★ Ownership Transition Checklist	v1 Russell Duncan	11/29/2017 2:53 PM
<input type="checkbox"/>	★ GO & Sons Demand for Jury Trial	v1 NetDocuments Trainer	10/4/2017 12:34 PM
<input checked="" type="checkbox"/>	★ AC & S Inc. Demand for Jury Trial	v1 NetDocuments Trainer	10/4/2017 12:31 PM
<input type="checkbox"/>	★ Sample txt file	v1 NetDocuments Trainer	10/3/2017 2:29 PM

In this case, the document was returned in the first 20 results.

Second, a learner could specify as much criteria as possible based on known information. This would include the file type, dates, custom profiles or metadata. If too few documents are returned, criteria can

be gradually removed to expand the returned results. In this case, the metadata was specific enough that the desired document was returned easily:

The screenshot shows a search results interface. On the left, a sidebar displays search criteria: Cabinet(s): Client Documents, Name: demand for jury trial, Created Date: 10/4/2017, and File Extensions: docx. The main area, titled 'Search Results', shows '2 items | 1 selected'. A table lists the results:

	Name ↓	Created by	Last modified date
<input type="checkbox"/>	★ GO & Sons Demand for Jury Trial	v1 NetDocuments Trainer	10/4/2017 12:34 PM
<input checked="" type="checkbox"/>	★ AC & S Inc. Demand for Jury Trial	v1 NetDocuments Trainer	10/4/2017 12:31 PM

A third alternative would be to search by any unique information in a single field, such as the Name field. As noted before, the name looks rather specific, so the learner could use “AC & S” in the Name field to search for the document:

The screenshot shows a search results interface with '23 items | 0 selected'. A table lists the results:

	Name	Created by	Last modified date ↓	Document ID
<input type="checkbox"/>	★ AC & S Inc. Demand for Jury Trial	v1 NetDocuments Trainer	10/4/2017 12:31 PM	4810-5805-5761
<input type="checkbox"/>	★ AC & S Inc. Demand for Jury Trial	v2 Minnie Mouse	6/26/2017 1:17 PM	4834-5013-4853
<input type="checkbox"/>	★ AC & S Inc. Demand for Jury Trial	v3 Minnie Mouse	10/13/2010 4:40 PM	4835-8451-7958

In this case, other documents with similar names were unexpectedly returned, but the others did not match the same date or the file type – they were docx rather than doc files. Additionally, the sort order placed the desired document at the top of the list.

Of course, if the user had the Doc ID of a specific item, they could use that to directly bring up that item.

Example 11 - Construct search criteria that utilizes the following: at least one date field, a Boolean operator within a field, a Boolean operator between fields, the file extension field, and at least one other field.

This is the most complex learning task a learner would be required to perform. It requires the learner to use more refined mental models of ndSearch to solve an ill-structured problem or apply strategies to a novel situation.

Because each learner could produce very different yet appropriate solutions, instructors should pay close attention to individual learner’s solutions to provide helpful feedback. Instructor’s customization of support should be contingent on the learner’s performance.

This task requires manual creation of custom criteria, seeing as Boolean operators *between* fields can't be entered from the Advanced Search page. These operators must be entered manually into the search bar after forming the base criteria from the Advanced Search page.

The learner could first enter all criteria in the Advanced Search fields, which has the effect of implicitly using AND between the fields. The learner would then edit the resulting criteria syntax to add additional () and a Boolean OR between the desired fields.

A learner should create something like the following:

```
( =6( John Doe ) =5( ^-90-+0 ) ) OR ( =8( John Doe ) =7( ^-120-+0 ) ) NOT =11( msi OR ZIP OR htm OR url OR msg OR eml )
```

It is common for a learner to omit the parenthesis around the first two strings (highlighted in red above), which would apply the OR to only those two strings on either side of the OR, like this:

```
=6( John Doe ) =5( ^-90-+0 ) OR =8( John Doe ) =7( ^-120-+0 ) NOT =11( msi OR ZIP OR htm OR url OR msg OR eml OR ndsq OR ndfld )
```

Here, an instructor might help a learner call to mind what they already know about using parenthesis in simple math equations. Using parenthesis in a math context is similar to creating search criteria syntax as parenthesis affect the order in which the strings are processed : (a * (b + c) – d). This is an example of using analogies to build on learner's prior knowledge to promote knowledge integration.

This custom search criteria will now search for items that have either been modified by John in the past 90 days, OR created by John in the past 120 days, OR both. This creates a much broader and more dynamic search that can be saved for easy access.

It is also common for learners to use Boolean operators *inside* parenthesis within a field. There are three problems with this that instructors must be prepared to point out if the need arises.

First, Booleans can't be used without an entry preceding it. This will not work:

```
=11( NOT msi OR ZIP OR htm OR url OR msg OR eml )
```

Second, placement of Boolean operators and parenthesis will likely produce different results. For example, this is excluding all the specified file types:

```
NOT =11( msi OR ZIP OR htm OR url OR msg OR eml )
```

But, this is only including the specified files types, *except* .eml:

```
=11( msi OR ZIP OR htm OR url OR msg NOT eml )
```

A common misconception might be to try this:

```
=11( msg NOT msi OR ZIP OR htm OR url )
```

This will find msg files but not any others. While this works, it is superfluous because by searching only msg files, you are by definition not returning any others listed.

Third, a novice might also enter this:

```
=11( msi AND ZIP AND htm AND url )
```

But this will not work, as it is searching for documents that have all of those file types. A document can only have one file type.