Advanced Query Syntax

The Advanced Query Syntax (AQS) is used by MicrosoftÂ Windows Desktop Search (WDS) to help users and programmers better define and narrow their searches. Using AQS is an easy way to narrow searches and deliver better result sets. Searches can be narrowed by the following parameters:

- File kinds: folders, documents, presentations, pictures and so on.
- File stores: specific databases and locations.
- File properties: size, date, title and so on.
- File contents: keywords like "project deliverables," "AQS," "blue suede shoes," and so on.

Furthermore, search parameters can be combined using search operators. The remainder of this section explains the query syntax, the parameters and operators, and how they can be combined to offer targeted search results. The tables describe the syntax to use with WDS, as well as the properties that can be queried for each file kind displayed in the **Windows Desktop Search** results window.

Desktop Search Syntax

A search query can include one or more keywords, with Boolean operators and optional criteria. These optional criteria can narrow a search based on the following:

- Scope or data store in which files reside
- Kinds of files
- Managed properties of files

The optional criteria, described in greater detail following, use the following syntax:

```
<scope name>:<value>
<file kind>:<value>
<property name>:<value>
```

Suppose a user wants to search for a document containing the phase "last quarter," created by John or Joanne, and that the user saved to the folder mydocuments. The query may look like this:

```
"last quarter" author:(john OR joanne) foldername:mydocuments
```

Scope: Locations and Data Stores

Users can limit the scope of their searches to specific folder locations or data stores. For example, if you use several email accounts and you want to limit a query to either Microsoft Outlook or Microsoft Outlook Express, you can use `store:outlook` or `store:oe` respectively.

Restrict Search by Data Store	Use	Example
Desktop	desktop	store:desktop
Files	files	store:files
Outlook	outlook	store:outlook
Outlook Express	oe	store:oe
Specific Folder	foldername or in	foldername:MyDocuments or in:MyDocuments

If you have a protocol handler in place to crawl custom stores, like Lotus Notes, you can use the name of the store or protocol handler for the store. For example, if you implemented a protocol handler to include a Lotus Notes data store as "notes," the query syntax would be `store:notes`.

Common File Kinds

Users can also limit their searches to specific types of files, called file kinds. The following table lists the file kinds and offers examples of the syntax used to search for these kinds of files.

To Restrict by File Type:	Use	Example
All file types	everything	kind:everything
Communications	communications	kind:communications
Contacts	contacts	kind:contacts
E-mail	email	kind:email
Instant Messenger conversations	im	kind:im
Meetings	meetings	kind:meetings
Tasks	tasks	kind:tasks
Notes	notes	kind:notes
Documents	docs	kind:docs
Text documents	text	kind:text
Spreadsheets	spreadsheets	kind:spreadsheets
Presentations	presentations	kind:presentations
Music	music	kind:music
Pictures	pics	kind:pics
Videos	videos	kind:videos
Folders	folders	kind:folders
Folder name	foldername or in	foldername:mydocs or in:mydocs
Favorites	favorites	kind:favorites
Programs	programs	kind:programs

Boolean Operators

Search keywords and file properties can be combined to broaden or narrow a search with operators. The following table explains common operators used in a search query.

Keyword/Symbol	Examples	Function
NOT	social NOT security	Finds items that contain *social*, but not *security*.
—	social —security	Finds items that contain *social*, but not *security*.
OR	social OR security	Finds items that contain *social* or *security*.
Quotation marks	"social security"	Finds items that contain the exact phrase *social security*.
Parentheses	(social security)	Finds items that contain *social* and *security* in any order.
>	date:>11/05/04	Finds items with a date after 11/05/04.
	size:>500	Finds items with a size greater than 500 bytes.
<	date:<11/05/04	Finds items with a date before 11/05/04.
	size:<500	Finds items with a size less than 500 bytes.
..	date:11/05/04..11/10/04	Finds items with a date beginning on 11/05/04 and ending on 11/10/04.

Note: The operators **NOT** and **OR** must be in uppercase and cannot be combined in one query (e.g., `social OR security NOT retirement`).

Boolean Properties

Some file types let users search for files using Boolean properties, as described in the following table.

Property	Example	Function
is:attachment	report is:attachment	Finds items that have attachments that contain *report*. Same as `isattachment:true`.
isonline:	report isonline:true	Finds items that are online and which contain *report*.
isrecurring:	report isrecurring:true	Finds items that are recurring and which contain*report*.
isflagged:	report isflagged:true	Finds items that are flagged (Review, Follow up, for example) and which contain *report*.
isdeleted:	report isdeleted:true	Finds items that are flagged as deleted (Recycle Bin or Deleted Items, for example) and which contain *report*.
iscompleted:	report iscompleted:false	Finds items that are not flagged as complete and which contain *report*.
hasattachment:	report hasattachment:true	Finds items containing *report* and having attachments
hasflag:	report hasflag:true	inds items containing *report* and having flags.

Dates

In addition to searching on specific dates and date ranges using the operators described earlier, AQS allows relative date values (like `today`, `tomorrow`, or `next week`) and day (like `Tuesday` or `Monday..Wednesday`) and month (`February`) values.

Relative to:	Syntax Example	Result
	date:today	Finds items with today's date.
Day	date:tomorrow	Finds items with tomorrow's date.
	date:yesterday	Finds items with yesterday's date.
	date:this week	Finds items with a date falling within the current week.
	date:last week	Finds items with a date falling within the previous week.
Week/Month/year	date:next month	Finds items with a date falling within the upcoming week.
	date:past month	Finds items with a date falling within the previous month.
	date:coming year	Finds items with a date falling within the upcoming year.

Properties by File Kind

Users can search on specific properties of different file kinds. Some properties (like file size) are common to all files, while others are limited to a specific kind. Slide count, for example, is specific to presentations. The following tables list these properties by file kind.

File Kind: Everything

These are properties common to all file kinds. To include all types of files in a query, the syntax is:

`kind:everything <property>:<value>`

where `<property>` is a property listed below and <value> is the user-specified search term.

Property	Use	Example
Title	title, subject or about	title:"Quarterly Financial"
Status	status	status:complete
Date	date	date:last week
Date modified	datemodified or modified	modified:last week
Importance	importance or priority	importance:high
Size	size	size:> 50
Deleted	deleted or isdeleted	isdeleted:true
Is attachment	isattachment	isattachment:true
To	to or toname	to:bob
Cc	cc or ccname	cc:john
Company	company	company:Microsoft
Location	location	location:"Conference Room 102"
Category	category	category:Business
Keywords	keywords	keywords:"sales projections"
Album	album	album:"Fly by Night"
File name	filename or file	filename:MyResume
Genre	genre	genre:rock
Author	author or by	author:"Stephen King"
People	people or with	with:(sonja or david)
Folder	folder, under or path	folder:downloads
File extension	ext or fileext	ext:.txt

Attachment

These are properties common to attachments. To limit the search to attachments only, the syntax is:

`kind:attachment <property>:<value>`

where `<property>` is a property listed below and <value> is the user-specified search term.

Property	Use	Example
People	people or with	people:john or with:john

Contacts

These are properties common to contacts. To limit the search to contacts only, the syntax is:

`kind:contacts <property>:<value>`

where `<property>` is a property listed below and <value> is the user-specified search term.

Property	Use	Example
Job title	jobtitle	jobtitle:CFO
IM address	imaddress	imaddress:john_doe@msn.com
Assistant's phone	assistantsphone	assistantsphone:555-3323
Assistant name	assistantname	assistantname:Paul
Profession	profession	profession:plumber
Nickname	nickname	nickname:Tex
Spouse	spouse	spouse:Debbie
Business city	businesscity	businesscity:Seattle
Business postal code	businesspostalcode	businesspostalcode:98006
Business home page	businesshomepage	businesshomepage:www.microsoft.com
Callback phone number	callbackphonenumber	callbackphonenumber:555-555-2121
Car phone	carphone	carphone:555-555-2121
Children	children	children:Timmy
First name	firstname	firstname:John
Last name	lastname	lastname:Doe
Home fax	homefax	homefax:555-555-2121
Manager's name	managersname	managersname:John
Pager	pager	pager:555-555-2121
Business phone	businessphone	businessphone:555-555-2121
Home phone	homephone	homephone:555-555-2121
Mobile phone	mobilephone	mobilephone:555-555-2121
Office	office	office:sample
Anniversary	anniversary	anniversary:1/1/06
Birthday	birthday	birthday:1/1/06
Web page	webpage	webpage:www.microsoft.com

Note: Phone numbers are indexed as entered. For example, if a user did not include a country or area code when entering the phone number, users will not be able to locate a contact if searching with country or area code in the phone number.

Communications

Property	Use	Example
From	from or organizer	from:john
Received	received or sent	sent:yesterday
Subject	subject or title	subject:"Quarterly Financial"
Has attachment	hasattachments, hasattachment	hasattachment:true
Attachments	attachments or attachment	attachment:presentation.ppt
Bcc	bcc, bccname or bccaddress	bcc:dave
Cc address	ccaddress or cc	ccaddress:john_doe@outlook.com
Follow-up flag	followupflag	followupflag:2
Due date	duedate or due	due:last week

Source: http://msdn.microsoft.com/en-us/library/aa965711%28v=vs.85%29.aspx

Property	Use	Example
Read	read or isread	is:read
Is completed	iscompleted	is:completed
Incomplete	incomplete or isincomplete	is:incomplete
Has flag	hasflag or isflagged	has:flag
Duration	duration	duration:> 50

These are properties common to communications. To limit the search to communications only, the syntax is:

```
kind:communications <property>:<value>
```

where `<property>` is a property listed below and `<value>` is the user-specified search term.

Calendar

These are properties common to calendars. To limit the search to calendars only, the syntax is:

```
kind:calendar <property>:<value>
```

where `<property>` is a property listed below and `<value>` is the user-specified search term.

Property	Use	Example
Recurring	recurring or isrecurring	is:recurring
Organizer	organizer, by or from	organizer:debbie

Documents

These are properties common to documents. To limit the search to documents only, the syntax is:

```
kind:documents <property>:<value>
```

where `<property>` is a property listed below and `<value>` is the user-specified search term.

Property	Use	Example
Comments	comments	comments:"needs final review"
Last saved by	lastsavedby	lastsavedby:john
Document manager	documentmanager	documentmanager:john
Revision number	revisionnumber	revisionnumber:1.0.3
Document format	documentformat	documentformat:MIMETYPE
Date last printed	datelastprinted	datelastprinted:last week

Presentation

These are properties common to presentations. To limit the search to presentations only, the syntax is:

```
kind:presentation <property>:<value>
```

where `<property>` is a property listed below and `<value>` is the user-specified search term.

Property	Use	Example
Slide count	slidecount	slidecount:>20

Music

These are properties common to music files. To limit the search to music only, the syntax is:

```
kind:music <property>:<value>
```

where `<property>` is a property listed below and `<value>` is the user-specified search term.

Property	Use	Example
Bit rate	bitrate, rate	bitrate:192
Artist	artist, by or from	artist:John Singer
Duration	duration	duration:3
Album	album	album:"greatest hits"
Genre	genre	genre:rock
Track	track	track:12
Year	year	year:> 1980 < 1990

Picture

These are properties common to pictures. To limit the search to pictures only, the syntax is:

`kind:picture <property>:<value>`

where `<property>` is a property listed below and `<value>` is the user-specified search term.

Property	Use	Example
Camera make	cameramake	cameramake:sample
Camera model	cameramodel	cameramodel:sample
Dimensions	dimensions	dimensions:8X10
Orientation	orientation	orientation:landscape
Date taken	datetaken	datetaken:yesterday
Width	width	width:1600
Height	height	height:1200

Video

These are properties common to videos. To limit the search to videos only, the syntax is:

`kind:video <property>:<value>`

where `<property>` is a property listed below and `<value>` is the user-specified search term.

Property	Use	Example
Name	name, subject	name:"Family Vacation to the Beach 05"
Ext	ext, fileext	ext:.avi