HP Integrated Archive Platform Version 2.1

User Guide

Includes information about using the Integrated Archive Platform (IAP) Web Interface (Content Search and Retrieve interface).

For additional user information on Email Archiving software for Microsoft Exchange and IBM Lotus Domino, see the HP Email Archiving software for Microsoft Exchange User Guide and HP Email Archiving software for IBM Lotus Domino User Guide contained in those products.



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Contents

About this guide	
Intended audience	
Prerequisites	
Related documentation	
Document conventions and symbols	
Support	
Subscription service	
1 IAP overview	
About the IAP	
Understanding document archiving	
Understanding searching and document indexing	
What the IAP indexes	
Indexed file types	
Message MIME types	
What the IAP does not index	
Document markup and formatting	
Non-indexed file types	
Limitations for Microsoft Office items	16
2 Introducing the IAP Web Interface	17
Logging in and out	
Understanding the user interface	
Using the toolbar	
Search basics	
Common tasks	
Changing your password	
Changing your language	
3 Searching for email or files	21
Completing simple searches	
Completing advanced searches	
Email Content Type	
Document Content Type	
Using other search page options	
4 Working with search results	20
Displaying search results	
Query results navigation bar	
Saving search criteria	
Saving search results	
Accessing saved criteria	34

Accessing saved results
Exporting search results
Using quarantine repositories Copying saved results to a quarantine repository Deleting the contents of a quarantine repository 5 Using the AuditLog The AuditLog repository Searching the AuditLog Completing the Search for field AuditLog advanced search fields AuditLog advanced search fields Viewing AuditLogs User actions in Web Interface Duplicate Manager jobs Administrative Delete actions 6 Troubleshooting problems in the Web Interface Unable to display saved results Corrupted documents Wildcard errors in queries Query and display issues in Japanese, Chinese, and Korean documents Aft Formatted email Problems exporting files 7 Query expression syntax and matching Query expressions Word characters and separators Regular expression syntax and matching Query expressions Word characters and separators Signed and digits in different character sets Letters and digits in files Signet Auditing words Signet Sig
Copying saved results to a quarantine repository
Deleting the contents of a quarantine repository 5 Using the AuditLog The AuditLog repository Searching the Auditlog Completing the Search for field AuditLog advanced search fields Viewing AuditLogs User actions in Web Interface Duplicate Manager jobs Administrative Delete actions 46 6 Troubleshooting problems in the Web Interface Unable to display saved results Corrupted documents Wildcard errors in queries Query and display issues in Japanese, Chinese, and Korean documents ### RTF formatted email Problems exporting files 7 Query expression syntax and matching Query expressions Word characters Word characters and separators Regular expression different character sets Letters and digits in different character sets Letters and digits defined Letters and digits in files Matching similar words 52 Matching similar words 39 39 39 39 39 39 39 39 39 3
The AuditLog repository Searching the AuditLog Completing the Search for field AuditLog advanced search fields 44 AuditLog advanced search fields 45 Viewing AuditLogs 46 User actions in Web Interface Duplicate Manager jobs Administrative Delete actions 46 Troubleshooting problems in the Web Interface Unable to display saved results Corrupted documents Wildcard errors in queries Query and display issues in Japanese, Chinese, and Korean documents 47 Query and display issues in Japanese, Chinese, and Korean documents 48 RTF formatted email 49 Problems exporting email 49 Problems exporting files 45 7 Query expression syntax and matching Query expressions Word characters 51 Word characters 52 Letters and digits in different character sets Letters and digits in files 53 Matching words 54 Matching words 55 Matching words 56 Matching similar words
The Auditlog repository
The Auditlog repository
The Auditlog repository
Searching the Auditlog Completing the Search for field Auditlog advanced search fields Viewing Auditlogs User actions in Web Interface Duplicate Manager jobs Administrative Delete actions 6 Troubleshooting problems in the Web Interface Unable to display saved results Corrupted documents Wildcard errors in queries Guery and display issues in Japanese, Chinese, and Korean documents 45 RTF formatted email Problems exporting email Problems exporting files 7 Query expression syntax and matching Query expressions Word characters and separators Regular expression definition of English word characters Letters and digits in different character sets Letters and digits in files Matching words Matching similar words
Completing the Search for field Auditlog advanced search fields Viewing Auditlogs User actions in Web Interface User actions in Web Interface Duplicate Manager jobs Administrative Delete actions 6 Troubleshooting problems in the Web Interface Unable to display saved results Corrupted documents Wildcard errors in queries Query and display issues in Japanese, Chinese, and Korean documents RTF formatted email Problems exporting email Problems exporting files 7 Query expression syntax and matching Query expressions Word characters Word characters Word characters Word characters and separators Regular expression definition of English word characters Letters and digits in different character sets Letters and digits in files Matching words Matching similar words
Auditlog advanced search fields
Viewing Auditlogs User actions in Web Interface Duplicate Manager jobs Administrative Delete actions 6 Troubleshooting problems in the Web Interface Unable to display saved results Corrupted documents Wildcard errors in queries Query and display issues in Japanese, Chinese, and Korean documents RTF formatted email Problems exporting email Problems exporting files 7 Query expression syntax and matching Query expressions Word characters Solution Word characters Solution Regular expression definition of English word characters Letters and digits in different character sets Letters and digits defined Letters and digits defined Letters and digits in files Matching words Matching similar words
User actions in Web Interface
Duplicate Manager jobs
Administrative Delete actions
Unable to display saved results
Unable to display saved results
Unable to display saved results
Corrupted documents 47 Wildcard errors in queries 47 Query and display issues in Japanese, Chinese, and Korean documents 48 RTF formatted email 49 Problems exporting email 49 Problems exporting files 49 Problems exporting files 51 Query expression syntax and matching 51 Query expressions 51 Word characters 51 Word characters 51 Word characters and separators 52 Regular expression definition of English word characters 52 Letters and digits in different character sets 52 Letters and digits defined 52 Letters and digits in files 53 Matching words 54 Matching similar words 54 Matching similar words 55
Wildcard errors in queries 47 Query and display issues in Japanese, Chinese, and Korean documents 48 RTF formatted email 49 Problems exporting email 49 Problems exporting files 49 Problems exporting files 49 Query expression syntax and matching 51 Query expressions 51 Word characters 51 Word characters and separators 52 Regular expression definition of English word characters 52 Letters and digits in different character sets 52 Letters and digits defined 52 Letters and digits in files 53 Matching words 54 Matching similar words 54
Query and display issues in Japanese, Chinese, and Korean documents 48 RTF formatted email 49 Problems exporting email 49 Problems exporting files 49 Problems exporting files 49 Query expression syntax and matching 51 Query expressions 51 Word characters 51 Word characters and separators 52 Regular expression definition of English word characters 52 Letters and digits in different character sets 52 Letters and digits defined 52 Letters and digits in files 53 Matching words 54 Matching similar words 54
RTF formatted email
Problems exporting email
Problems exporting files
Query expressions51Word characters51Word characters and separators52Regular expression definition of English word characters52Letters and digits in different character sets52Letters and digits defined52Letters and digits in files53Matching words54Matching similar words54
Query expressions51Word characters51Word characters and separators52Regular expression definition of English word characters52Letters and digits in different character sets52Letters and digits defined52Letters and digits in files53Matching words54Matching similar words54
Query expressions51Word characters51Word characters and separators52Regular expression definition of English word characters52Letters and digits in different character sets52Letters and digits defined52Letters and digits in files53Matching words54Matching similar words54
Word characters51Word characters and separators52Regular expression definition of English word characters52Letters and digits in different character sets52Letters and digits defined52Letters and digits in files53Matching words54Matching similar words54
Regular expression definition of English word characters 52 Letters and digits in different character sets 52 Letters and digits defined 52 Letters and digits in files 53 Matching words 54 Matching similar words 54
Regular expression definition of English word characters 52 Letters and digits in different character sets 52 Letters and digits defined 52 Letters and digits in files 53 Matching words 54 Matching similar words 54
Letters and digits in different character sets
Letters and digits in files
Matching words
Matching similar words
Measuring word similarity
Matching word sequences
Simple word sequences
Proximity word sequences
Matching word sequences in files and email attachments
Separators are ignored
Separators are ignored
Separators are ignored 56 Sequence is not intuitive 56 Boolean query expressions 58 Using the AND and OR operators 58 Using the NOT operator 59 Example of queries using NOT operator 59 Separators 60 Sub-expressions 60
Separators are ignored 56 Sequence is not intuitive 56 Boolean query expressions 58 Using the AND and OR operators 59 Using the NOT operator 59 Example of queries using NOT operator 59 Separators 60

A Indexed file types and MIME types	63
B Additional indexing detail for Microsoft Office Microsoft Office supported features Microsoft Office supported file properties	65
Index	

Figures

1	IAP Web Interface toolbar	18
2	Simple Search page	21
3	Advanced Search page (email content type)	24
4	Advanced Search page (document content type)	27
5	Query Results page (email content type)	29
6	Query Results page (document content type)	30
7	Query results navigation bar	31
8	Save Criteria page	32
9	Save Results page	33
10	Saved Criteria view, Query Manager page	34
11	Saved Results view, Query Manager page	35
12	AuditLog advanced search	43
13	AuditLog query results	44
14	AuditLog for user actions in Web Interface	45
15	AuditLog for Duplicate Manager job	46
16	AuditLog for Administrative Delete actions in PCC	46
17	AuditLog entry for email deletion	46
18	Extra space in email Subject field	48

Tables

1	Document conventions	9
2	Applications for users	13
3	Toolbar buttons, IAP Web Interface	18
4	IAP Web Interface tasks	19
5	Additional advanced search query fields (email)	25
6	Additional advanced search query fields (documents)	28
7	Query results navigation bar	31
8	Logged actions and descriptions	41
9	Additional fields for AuditLog repository searches	43
0	Supported character sets	53
1	Excel spreadsheet	57
2	Boolean AND and OR operators	58
3	Boolean NOT operator properly used in query	59
4	Query expression examples	61
15	IAP indexed file types and MIME types	63
16	Microsoft Office supported features	65
7	Microsoft Office supported properties	66

About this guide

This guide provides information about using the IAP Web Interface to search for and retrieve archived documents.

For additional information on using Email Archiving software for Microsoft Exchange and IBM Domino, see the HP Email Archiving software for Microsoft Exchange User Guide and HP Email Archiving software for IBM Domino User Guide contained in those products.

Intended audience

This guide is intended for users of the IAP Web Interface.

Prerequisites

Prerequisites for using this product include knowledge of using Web browsers.

Related documentation

In addition to this guide, HP provides the following on the IAP documentation CD:

- HP Integrated Archive Platform Administrator Guide
- HP Integrated Archive Platform Release Notes

Online help is also available for the IAP Platform Control Center (PCC) and IAP Web Interface. The IAP Web Interface online help is a subset of this guide. The IAP PCC online help is a subset of the HP Integrated Archive Platform Administrator Guide.

Document conventions and symbols

Table 1 Document conventions

Convention	Element			
Blue text: Table 1	Cross-reference links and email addresses			
Blue, underlined text: http://www.hp.com	Web site addresses			
Bold text	 Keys that are pressed Text typed into a GUI element, such as a box GUI elements that are clicked or selected, such as menu and list items, buttons, tabs, and check boxes 			
Italic text	Text emphasis			

Convention	Element		
Monospace text	 File and directory names System output Code Commands, their arguments, and argument values 		
Monospace, italic text	Code variablesCommand variables		
Monospace, bold text	Emphasized monospace text		

\triangle CAUTION:

Indicates that failure to follow directions could result in damage to equipment or data.

! IMPORTANT:

Provides clarifying information or specific instructions.

NOTE:

Provides additional information.



Provides helpful hints and shortcuts.

Support

You can visit the HP Software Support Web site at http://www.hp.com/go/hpsoftwaresupport.

HP Software Support Online provides an efficient way to access interactive technical support tools. As a valued support customer, you can benefit by using the support site to:

- Search for knowledge documents of interest
- Submit and track support cases and enhancement requests
- Download software patches
- Manage support contracts
- Look up HP support contacts
- Review information about available services
- Enter into discussions with other software customers
- Research and register for software training

Most of the support areas require that you register as an HP Passport user and sign in. Many also require a support contract.

To find more information about access levels, go to http://support.openview.hp.com/new_access levels.jsp.

Subscription service

HP strongly recommends that customers register online using the Subscriber's choice Web site: http://www.hp.com/go/e-updates.

Subscribing to this service provides you with email updates on the latest product enhancements, newest driver versions, and firmware documentation updates as well as instant access to numerous other product resources.

1 IAP overview

This section describes the HP Integrated Archive Platform (IAP) and the IAP Web Interface, which you will use to search for email or files archived on the system.

Major topics include:

- About the IAP, page 13
- Understanding document archiving, page 14
- Understanding searching and document indexing, page 14
- What the IAP indexes, page 15
- What the IAP does not index, page 15

About the IAP

HP's Integrated Archive Platform (IAP) is a fault-tolerant, secure system of software and services for archiving and retention management. It provides long-term information retention combined with high-speed, interactive search and retrieval capabilities to help organizations meet their regulatory requirements.

The IAP software can be deployed on IAP hardware or on servers running VMware ESXi Server software.

- Automatic, active data archiving to help your organization meet regulatory requirements.
- Interactive data querying to search for and retrieve archived data according to various criteria.

To interact with the system, you can use the following applications.

Table 2 Applications for users

Application	Tasks
Outlook Plug-In (customer option)	Search for, view, and work with archived email using Microsoft Outlook. Export email from the IAP to a PST file.
OWA Extension (customer option) View and work with archived email using Outlook Web Access.	
Notes Client Plug-In Local Cache Export Search (customer options, Windows users only)	View and work with archived email using IBM Lotus Notes. Access archived email offline while you are traveling. Export email from the IAP to a Notes database file.
DWA Extension (customer option)	View and work with archived email using Domino Web Access (iNotes).
IAP File Export (customer option)	Export files from the IAP to your computer or a network folder.

Application	Tasks		
	Use your Web browser to search for and view archived email and files on the IAP. Send email to your email account or download files to a local computer or network folder.		
IAP Web Interface	Compliance officers: Place a legal hold on documents. View the compliance system log (AuditLog).		
	(Customer option) Export email and files from the IAP when the appropriate export utility is installed on your system.		

The IAP Web Interface is available to all users. Outlook Plug-In, Local Cache, Export Search, OWA Extension, DWA Extension, and IAP File Export are independent customer options. Depending on the configuration of your system, each may or may not be available to you.

Understanding document archiving

The IAP archives files and email messages associated with registered users.

Archiving involves physically storing copies of a document (file or email message), but also virtually storing it in one or more repositories. A repository is a virtual collection of documents associated with routing rules (for archiving) and user access control lists (for retrieving).

- Documents associated with a given user are archived to a given set of repositories. User-repository associations are defined by routing rules.
- A user has guery and retrieval access to a given set of repositories. This is controlled by access control lists associated with each repository.

Most users have search and retrieval access only to their own documents, which are archived in their individual repositories.

In email archiving, the system can automatically archive to your individual repository all messages that you send or receive. In addition to being automatically routed to your individual repository, your email is probably also routed to other repositories established by your organization. For example, a company audit repository might be used to keep track of all company email. Some users have access to other repositories besides their own. For example, your manager or supervisor might have access to your repository.

Understanding searching and document indexing

You can search for any email message or file archived in your repository or other repositories to which you have access. However, you can search the contents of a document only if the contents have been indexed. Indexing a document's contents involves cataloging the document words to prepare them for later searching. When you search for a document, your query is checked against an index of words that is updated each time a document is archived.

NOTE:

There is a delay from the time that documents are archived to the time they are indexed. Depending on the system configuration, documents may not be available for search for at least two hours after they are archived.

What the IAP indexes

The following sections explain what is indexed by the IAP and can be searched for in the Web Interface.

Indexed file types

You can search the contents of email messages and the file types listed below. For a complete list of the file types that are indexed by the IAP, see "Indexed file types and MIME types" on page 63.

- Plain text files
- Rich text files (.rtf)
- Documents in TNEF format (for Microsoft Outlook and Exchange)
- HTML (HyperText Markup Language) files
- Files used by the following Microsoft Office programs: Word, Excel, and PowerPoint
 We support indexing of these file types for Microsoft Office 2007 and prior releases of Office.
 See "Additional indexing detail for Microsoft Office" on page 65 and "Limitations for Microsoft Office items" on page 16 for more information on what is and is not indexed in Microsoft Office documents.
- Files used by the following Corel WordPerfect Office programs: WordPerfect, Quattro Pro, Presentations
 - We support indexing of these file types for WordPerfect Office X3 and prior releases of Office.
- PDF (Portable Document Format) files viewed with Adobe Acrobat Reader
- ZIP files
- Embedded messages (RFC 822 messages)
 For ZIP files and embedded messages, the content inside the files is expanded and indexed.

Message MIME types

An email message can contain message parts of different MIME (Multipurpose Internet Mail Extensions) content-types. The IAP indexes the content-types shown in "Indexed file types and MIME types" on page 63. Each content-type corresponds to one of the indexed file types.

An email message that is entirely plain text, not MIME, is also indexed.

What the IAP does not index

The following sections explain what the IAP does not index.

Document markup and formatting

Separators (such as punctuation) between words are ignored during indexing. Invisible source-code words, such as HTML markup tags, are also ignored in indexing.

Document formatting usually has no bearing on indexing, and only the words you see in an email or file are indexing candidates. However, when a dropped cap (a large initial capital letter) is used in a Microsoft Word document, the word with the dropped cap is indexed as two separate words. This is because Word puts a dropped cap into a text box to set it off from the surrounding paragraph.

In the example below, XYZcorp would be indexed as "X" and "yzcorp."

XYZcorp has posted strong results in the second quarter. Chief Executive Officer Bob Brown announced today that the company is on track to beat

Non-indexed file types

The following file types are not indexed:

- Graphic files
- Music files
- Video files

Depending on the way your IAP system is configured, these types of files might be archived, but they are not indexed. You can search for them only by using external identifying information, such as the file name or file extension.

Limitations for Microsoft Office items

Non-indexed Microsoft Office files

The following types of Microsoft Office files are not indexed by the IAP:

- Microsoft Access files
- Microsoft Project files
- Microsoft Visio files

If these files are archived, you can search for them only by using external identifying information, such as the file name or file extension.

Limitations for Microsoft Word items

Some items in Microsoft Word documents are not indexed by the IAP:

- Macros: In Microsoft Word 2003 and 2007 documents, macros are not indexed. You cannot search on text in macros.
- Microsoft Word 2003 documents that use the versioning feature: Only the text in the latest version
 of the document is indexed. You cannot search on text that is included solely in an earlier version
 of the document.

Limitations for Microsoft Office 2007 items

Office 2007 documents that were archived before IAP 1.6.1 or 2.0 was installed are not indexed or content searchable.

In addition, some documents converted to Microsoft Office 2007 by the Office File converter might not be properly indexed.

2 Introducing the IAP Web Interface

Use the Web-based search tool to search for email and documents archived in the HP Integrated Archive Platform (IAP) system.

This section explains the basics of the IAP Web Interface.

- Logging in and out, page 17
- Understanding the user interface, page 17
- Common tasks, page 19
- Changing your password, page 20
- Changing your language, page 20

Logging in and out

Before logging in for the first time, see your system administrator for the URL to use.

The IAP Web Interface can be accessed with any of the following supported Web browsers:

- Microsoft Internet Explorer for Windows versions 7.x and 8.x
- Mozilla Firefox version 3.0.11 and above

The IAP Web Interface can be accessed from your computer using regular HTTP protocol as well as secure HTTP protocol (HTTPS), for better protection during authentication. The IAP Web Interface supports HTTPS by default. If you use regular HTTP, you will be redirected automatically to HTTPS protocol. Once logged in, you can use regular HTTP.

To access the IAP Web Interface:

- 1. In the Address field of your Web browser, enter the URL (Web address) that was provided to you by your system administrator.
 - The Web browser displays a login screen.
- 2. Enter your user name and password (provided by your system administrator).
 - Passwords are case-sensitive. If you need to start over, click **Reset** to clear the Username and Password boxes.
- 3. Select your language.
- 4. Click Login.

The Simple Search page is displayed.

5. To log out, click **LogOut** in the toolbar.

Understanding the user interface

User interface topics include:

- Using the toolbar, page 18
- Search basics, page 18

Using the toolbar

Each page of the IAP Web Interface has a toolbar at the top.



Figure 1 IAP Web Interface toolbar

The following table describes each button:

Table 3 Toolbar buttons, IAP Web Interface

Button	Description
	Click to display the Simple Search page, where you can submit a query. See "Completing simple searches" on page 21.
New Search	To display the Advanced Search page, point to this button and click Advanced search from the menu. See "Completing advanced searches" on page 22.
Query Manager	Click to display the Query Manager page, where you can access saved queries (see "Accessing saved criteria" on page 34) and search results (see "Accessing saved results" on page 34).
	Click to display the Preferences menu, where certain users can change their password for accessing the IAP Web Interface. See "Changing your password" on page 20.
Preferences	You can also use the Preferences menu to change the language of the user interface. See "Changing your language" on page 20. Supported languages include English (United States), English (United Kingdom), French, German, Spanish, Portuguese (Portugal), Portuguese (Brazil), Italian, Chinese (Traditional), Chinese (Simplified), Korean, and Japanese.
	Click for online help about using the IAP Web Interface.
Help	Online help is available in English (US), French, German, Spanish, Portuguese (Portugal), Portuguese (Brazil), Italian, and Japanese.
LogOut	Click to log out of the IAP Web Interface.

Search basics

Using the Search for field

The Search for field is available when using the Simple Search and Advanced Search pages. Use this field to search for specific words in a document (email messages or files).

The query syntax allowed is described in "Query expression syntax and matching" on page 51. You can enter simple words, words with wildcards, or a more sophisticated query involving Boolean expressions or word sequences.

MOTE:

To narrow the search to the documents you want to find, make your search text as specific as possible. In general, the more information provided in the Search for field, the narrower the search. If the field is blank (empty), all documents within the specified date range of the guery are returned.

Searching indexed contents

The Search for field is checked for a match against the indexed contents of documents.

- For email messages, the Search for field searches for words in the message body, but *not* in other message fields such as From or To. The Search for field can also be used to search indexed message attachments; for example, the text in a Microsoft Word file.
- For files, the Search for field applies only to indexed document files. (Files such as graphics or music files do not have indexed contents and cannot be searched.)

Common tasks

Use the following table as a quick reference for performing common tasks in the Web Interface.

Table 4 IAP Web Interface tasks

Task	Reference
Search for archived documents	"Completing simple searches" on page 21 and "Completing advanced searches" on page 22
Display or print the search results	"Displaying search results" on page 29
Save search criteria	"Saving search criteria" on page 32
Save the results of a search	"Saving search results" on page 32
Display or delete saved search criteria	"Accessing saved criteria" on page 34
Display the saved results of a search	"Accessing saved results" on page 34
Send items to your email account	"Sending search results" on page 35
Export email or files	"Exporting search results" on page 36
Save archived documents to a quarantine repository (legal hold)	"Copying saved results to a quarantine repository" on page 37
Delete a quarantine repository	"Deleting the contents of a quarantine repository" on page 38
Search the AuditLog repository	"The AuditLog repository" on page 39
Change the Web Interface language	"Changing your language" on page 20
Change your Web Interface password (system administrators and compliance users only)	"Changing your password" on page 20
Troubleshoot problems	"Troubleshooting problems in the Web Interface" on page 47

Changing your password

NOTE:

This option does not appear if you cannot change your password from the Web Interface.

Depending on how your system is configured, your password is usually the same as your Windows or your Lotus Notes password. Users who have a local account created in the IAP, such as system administrators or compliance officers, have the option of managing their password through the Web Interface.

To change your password for accessing the IAP Web Interface:

- 1. Click **Preferences** in the toolbar.
- 2. Click Change Password.
- Enter your current password (Old Password), enter the New Password twice, and then click Change.

Change your password immediately after you log in for the first time. For security reasons, change your password periodically.

Changing your language

You can change the language of the Web Interface by following these steps:

- 1. Click **Preferences** in the toolbar.
- Click Change Language.
- Enter the language you prefer.

For the user interface, supported languages are English (United States), English (United Kingdom), French, German, Spanish, Portuguese (Portugal), Portuguese (Brazil), Italian, Chinese (Traditional), Chinese (Simplified), Korean, and Japanese.

Online help is available in English (US), French, German, Spanish, Portuguese (Portugal), Portuguese (Brazil), Italian, and Japanese.

3 Searching for email or files

This section explains how to conduct simple searches or more advanced searches for documents that are archived in the IAP.

- Completing simple searches, page 21
- Completing advanced searches, page 22
- Using other search page options, page 28

Completing simple searches

Use the Simple Search page to search for email or files using a pre-set time frame and words entered in the Search for field. The Simple Search page is simpler than the Advanced Search page because there are fewer fields you can search on.

To complete a simple search:

Click New Search in the toolbar. The Simple Search page is displayed.
 (The Simple Search page also appears after you log in to the Web Interface.)

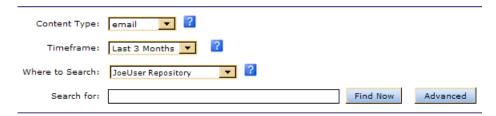


Figure 2 Simple Search page

- 2. Search using the following fields on the Simple Search page:
 - · Content Type:
 - Use email to search for email messages.
 - Use document to search for files that were migrated using the HP File Archiving software (formerly known as FMA).

Using "document" does not search for attachments in email sent by Microsoft Outlook or Lotus Notes. Use "email" to search for email attachments.

Compliance officers: For instructions on searching the AuditLog repository, see "The AuditLog repository" on page 39.

- Timeframe: The time period to search. Select the time period from the list.
- Where to Search: The repository to search. Only the repositories to which you have access
 are displayed. For example, you can search for your own archived email, but you cannot
 search for John Smith's email unless your system administrator has given you access to John
 Smith's repository. The repositories are listed in alphabetical order.
- (Optional) Search for: Searches for words in the message body, message attachment, or file.

NOTE:

For information about a search field, momentarily hold your mouse pointer over 2 to display a tooltip.

3. When you have finished defining your query, click **Find Now** to start the search.

(If you find that you need to perform an advanced search instead, click Advanced Search next to the Find Now button.)

The Query Results page is displayed when the search is complete.

Your search criteria is preserved until you create another query in the Web Interface session.

Completing advanced searches

For more specific searches, use the Advanced Search page. The Advanced Search page provides added query fields to help refine your search.

To complete an advanced search:

1. Point to **New Search** in the toolbar and click **Advanced search** from the menu.

The Advanced Search page is displayed.

- 2. Search using the following fields on the Advanced Search page:
 - Content Type:
 - Use email to search for email messages.
 - Use **document** to search for files that were migrated using the HP File Archiving software (formerly known as FMA).

Using "document" does not search for attachments in email sent by Microsoft Outlook or Lotus Notes. Use "email" to search for email attachments.

Compliance officers: For instructions on searching the AuditLog repository, see "The AuditLog repository" on page 39.

- Search for: Searches for words in the message body, message attachment, or file. You can
 enter simple words, words with wildcards (*), or a more sophisticated query involving Boolean
 expressions or word sequences.
- By TimeFrame: The time period to search. This includes the last-modified date of a file or the date an email message was sent.

You can choose a predefined time period, or define a specific time period to search by entering the Start and end (To) dates. For example, to search for documents dated between March 8, 2009 and March 23, 2009, enter **03/08/2009** in the Start field and **03/23/2009** in the To field.

Where to Search: The repository to search. Only the repositories to which you have access
are displayed. For example, you can search for your own archived email, but you cannot
search for John Smith's email unless your system administrator has given you access to John
Smith's repository. The repositories are listed in alphabetical order.

NOTE:

For information about a search field, momentarily hold your mouse pointer over 2 to display a tooltip.

3. To refine the search, use one or more of the additional query fields, as shown in Email Content Type or Document Content Type.

The available fields depend on the Content Type you select.

4. When you have finished defining your query, click **Find Now** to start the search.

(If you find you do not need to perform an advanced search, click Simple Search next to the Find Now button to switch to the Simple Search form.)

The Query Results page is displayed when the search is complete.

Your search criteria is preserved until you create another query in the Web Interface session.

MOTE:

You can use wildcards (* or ?) in the Advanced Search fields, but do **not** use a wildcard for the first character in a field. For more information on using wildcards, see "Matching words" on page 54.

For more information on composing IAP queries, see "Query expression syntax and matching" on page 51.

If you receive an error message after submitting a query, see "Wildcard errors in queries" on page 47.

Email Content Type

Step #1 - Search Type:					
Content Type:	email ?				
Step #2 - Field Search Criteria:					
Search for:					?
Subject:	Mail*				?
From:	wendtest*				?
To / Cc:					?
Address:					?
Folder Name:	\Inbox				?
Attachment Name:					?
MessageID:					?
Step #3 - Time Search Criteria:					
By Timeframe:	Last year ?				
	01/01/2009		To: 04/01/200	9 🗐	
Step #4 - Search Location:					
Where to Search:	JoeUser Repository	?			
			Find Now	Simple Search	

Figure 3 Advanced Search page (email content type)

Table 5 Additional advanced search query fields (email)

Query field	Matches
Subject	Enter one or more words from the email's Subject field.
From	Enter the email address of the person who sent the message. You can use a partial email address with a wildcard.
	The From field is disabled if the Address search field is completed.
To / Cc	Enter the email address of a person who received the message or was copied in the message. You can use a partial email address with a wildcard.
	The To/Cc field is disabled if the Address search field is completed.
	If you are a user with "compliance" authorization, this value will match recipients in the Rcpt To, To, Bcc, Cc, or Apparently-To message fields.
	If you are not a legal or compliance officer, this value will match recipients in the To, Cc, and Apparently-To message fields.
Address	Search for messages that were sent to <i>or</i> from a person by entering the person's email address. You can use a partial email address with a wildcard.
	The Address field is disabled if either the From or To/CC search field is completed.
	If you are a user with "compliance" authorization, this value will match addresses in the From, Rcpt To, To, Bcc, Cc, or Apparently-To message fields.
	If you are not a legal or compliance officer, this value will match recipients in the From, To, Cc, and Apparently-To message fields.

Query field	Matches
Query field Folder Name	NOTE: This field only appears if your IAP system records the name of the Outlook folder where an email was located. The Folder Name field is not available for messages archived from Lotus Notes. To complete the field, enter the name of the Outlook folder. Use quotation marks to search for a folder that has spaces in the name. For example: "my folder" or "Sent Items". (This does not apply to Japanese, Chinese, or Korean email folder names. See "Query and display issues in Japanese, Chinese, and Korean documents" on page 48.) Example queries: 2006 searches all folders and subfolders with the name 2006; for example, \Inbox\2006 and \Inbox\test\2006, but not \Inbox. \Inbox\2006 searches only folder 2006 in path \Inbox\2006. \Inbox\2006 searches only the root folder \2006. \Inbox\2006 searches only the root folder \2006. \Inbox\2006\personal searches only the folder personal in the path \Inbox\2006\personal. 2006\personal* searches the folder 2006\personal anywhere in the path. 2006\personal* searches the folder 2006\personal and all its subfolders and nested folders. sent* searches all folders that start with sent, for example, Sent Items and SentEmail. Search is not case-sensitive. bugs\20* searches all folders in "bugs" that start with 20, for example \bugs\2006 and \bugs\20data. Searching in core folders (Outlook hard-coded folders like Inbox, Sent Items, or Sync Issues\Conflicts): If the core folder only has one level (like Inbox), there is no search limitation. If the core folder has more than one level (like Sync Issues\Conflicts) and you want
	core folder has more than one level (like Sync Issues\Conflicts) and you want to search the emails in the second level (Conflicts), enter both levels or use wildcards. Searching for "Sync Issues\Conflicts" will find email in Sync Issues\Conflicts. Searching for "Sync Issues\Conflicts" will find email in Sync Issues\Conflicts. However, searching for Conflicts will not find email in Sync Issues\Conflicts.
Attachment Name	Enter the file name of an email attachment. (The contents of indexed email attachments are searched using the Search for field.) You can use a partial file name with a wildcard. NOTE:
	If an email attachment contains other files, you can only perform a file name search on the "top level" attachment. For example, if a ZIP file is attached to an email, you can search on the ZIP file name but not the name of a Word file contained in the ZIP. (The contents of the Word file can be searched using the Search for field.)

Query field	Matches	
MessageID	Enter the MessageID (message identification number) from Outlook. (Not all messages have MessageIDs.) This field is used mainly for compliance searches. To display the MessageID field in Outlook: 1. Double-click to open the message in its own window. 2. Select View > Options. The Message Options dialog box is displayed. If the message has a MessageID, the field is shown in the Internet headers field of the Message Options dialog box. Example: Message-ID: <listmanager-115380-9228-2003.03.04-17.34.24-user#hp.com@lists.frameusers.com>.</listmanager-115380-9228-2003.03.04-17.34.24-user#hp.com@lists.frameusers.com>	

Document Content Type

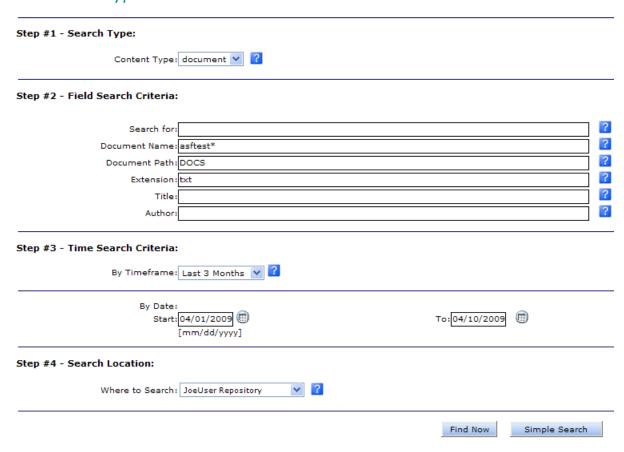


Figure 4 Advanced Search page (document content type)

Table 6 Additional advanced search query fields (documents)

Query field	Matches	
Document Name	Enter the file name, not including the file extension.	
Document Path	Enter the document's original file path. As for any other text query field, separators such as slash (/), backslash (\), and colon (:) are ignored, and the query words are searched in any order. For example, query text c:\abc\xyz will match path abc:\xyz\c, as well as path c:\abc\xyz. To ensure that path components are searched in order, enclose the text in double quotation marks. For example, "c:\abc\xyz." See "Query expression syntax and matching" on page 51 for more information on the IAP query language.	
Extension	Enter the file extension. Example: doc for a Microsoft Word file.	
Title	Enter the title of the document. Only some files have associated titles. For example, to see the title of a Word document, select File > Properties in Word. The Title field is shown on the Summary panel of the displayed Properties dialog box.	
Author	Enter the author of the document. Only some files have associated authors. For example, to see the author of a Word document, select File > Properties in Word. The Author field is shown on the Summary panel of the displayed Properties dialog box.	

Using other search page options

When you right-click inside the Simple Search or Advanced Search page, a menu appears with the options listed below.



- Refresh: Select to remove any search criteria you have entered and return the page to its default entries.
- New Search: Select to conduct a new simple search.
- Query Manager: Select to access the Query Manager, which displays saved search criteria and saved search results. For more information, see Accessing saved criteria and Accessing saved results on page 34.
- **Preferences**: Select to change the language of the Web Interface or change your password if you have a local account created in the IAP. For more information, see Changing your language and Changing your password on page 20.

4 Working with search results

After completing a search, there are many ways to work with the results of the search. This section explains how to save the items you find, save the criteria for the search, send message copies to your email account, and create quarantine repositories for legal holds.

- Displaying search results, page 29
- Saving search criteria, page 32
- Saving search results, page 32
- Accessing saved criteria, page 34
- Accessing saved results, page 34
- Sending search results, page 35
- Exporting search results, page 36
- Using quarantine repositories, page 37

Displaying search results

The Query Results page is displayed after you perform one of the following actions:

- Submit a simple or advanced search (see "Completing simple searches" on page 21 or "Completing advanced searches" on page 22).
- Submit a search from previously saved criteria (see "Accessing saved criteria" on page 34).
- Access previously saved results (see "Accessing saved results" on page 34).

The examples below show sample Query Results pages. In email results, the Folder column only appears if your system records the Outlook folder in which the email was located.

The IAP Web Interface supports up to 1,000 emails with duplicate timestamps.



Figure 5 Query Results page (email content type)

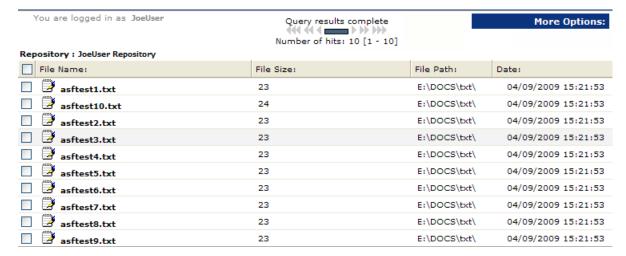


Figure 6 Query Results page (document content type)

You can complete any of the following tasks from the Query Results page:

- To display the contents of an email in the viewing pane, click the item from the list once. Clicking the item twice will open the preview pane as a new window.
- To display the contents of a document (file), click the item in the list, click **Download**, and then click **Open** in the File Download dialog box.
- To download a file, click the item in the list and then click **Download**. Click **Save** in the File
 Download dialog box, browse to a location on your computer or network, and then click **Save**.
- To display a different group of results, click the different symbols in the query results navigation bar. See "Query results navigation bar" on page 31 for more information.
- To select all displayed results or clear all selected results, select or clear the check box in the query results header.
- To print the Query Results page, use the print button in your Web browser.

Click **More Options** on the Query Results page to perform the following tasks:



- To save the current criteria, see "Saving search criteria" on page 32.
- To save the current results, see "Saving search results" on page 32.
- To mail all or selected results to your mailbox, see "Sending search results" on page 35.
- To export all or selected results, see "Exporting search results" on page 36.

Query results navigation bar

When search results are retrieved, the most recent documents are displayed first.

Documents that were archived within the past two hours might not appear in the results, depending on your system's configuration.

Fifty results (maximum) are shown on the Query Results page. You can use the query results navigation bar to display different groups of 50 results.



Figure 7 Query results navigation bar

The query results navigation bar shows the following information:

Table 7 Query results navigation bar

Item	Description
bars:	From left to right, the five bars represent subsequent pages of 50 results (maximum). Click a bar to display its page of results. The dark bar represents the currently displayed results. To see which documents a given bar represents, momentarily hold the mouse pointer over the bar to display a tooltip.
arrows: • • • • • • • • • • • • • • • • • • •	Click an arrow to display a different page of results: • Move the results display forward by 50 (▶), 100 (▶), or 500 (▶)) documents. • Move the results display back by 50 (◄), 100 (◄), or 500 (◄◄ ◀). For example, if the current page shows results 1-50, clicking the right double-arrow (▶) displays results 100-150.
status	 Text indicating the current status of results retrieval: Query Still In Progress: Searching is in progress. Less than 50 results have been found so far. Click Above: Searching is in progress. At least 50 results have been found and displayed. You can click a navigation bar (to display a set of 50 results while the search is in progress. Query Results Complete: Searching is complete if the query produces no more than 500 query results. If there are more than 500 results, the search for the first 500 results is complete. To search for additional results for the query, click the right triple-arrow symbol (to retrieve all possible results.

Result retrieval batches

When you submit a query or search, the first 500 results are retrieved. To see more results for a query that returns more than 500 results, you must click the right triple-arrow symbol (). When there are more than 500 results, the Query Results Complete status message means that the first batch of 500 results has been retrieved. It does not mean that all results have been retrieved.

Saving search criteria

After you submit a search, you can save the search criteria.

To save criteria:

- Display the Query Results page by completing one of the following tasks:
 - Submit a simple or advanced search (see "Completing simple searches" on page 21 or "Completing advanced searches" on page 22).
 - Access previously saved results (see "Accessing saved results" on page 34).
- From the Query Results page, click More Options, and then click Save Current Search Criteria.
 Or right-click and select Save criteria. The Save Criteria page is displayed.

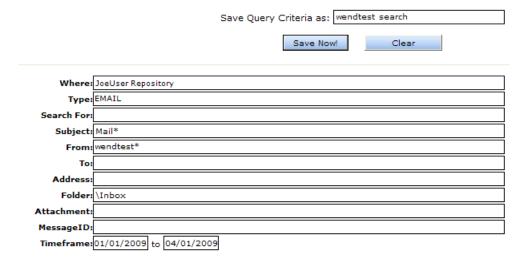


Figure 8 Save Criteria page

Enter the name of the criteria you are saving in the Save Query Criteria as field. (To erase text entered in the Save Query Criteria as field, click Clear.)

Special characters @ $\% ^ \& # ()[] / \{ + \} ^ ~ = |$ are not allowed.

- Click Save Now!
- 5. To access the saved criteria, see "Accessing saved criteria" on page 34.

Saving search results

After you submit a search, you can save the results. The search results are saved for one week and then deleted. The Web Interface also contains a button for manually deleting saved search results. It is possible that items in saved search results might be deleted from the IAP before the week is over if their retention period has expired. See "Unable to display saved results" on page 47.

The one week period does not apply to search results that are placed in a legal hold. See "Using quarantine repositories" on page 37 for more information.

NOTE:

Deleting search results does not delete the items on the IAP. The actual items remain on the IAP according to the retention period set by your system administrator.

If a search locates a large number of documents, saving the results is useful. The query is resubmitted as a background process. Because the query runs in the background, you can continue to use the IAP Web Interface (for example, to submit other queries) and then retrieve the results at a later time.

To save results:

- 1. Display the Query Results page by completing one of the following tasks:
 - Submit a simple or advanced search (see "Completing simple searches" on page 21 or "Completing advanced searches" on page 22).
 - Submit a search from previously saved criteria (see "Accessing saved criteria" on page 34).
- From the Query Results page, click More Options, and then click Save Current Results. Or right-click and select Save results. The Save Results page is displayed.

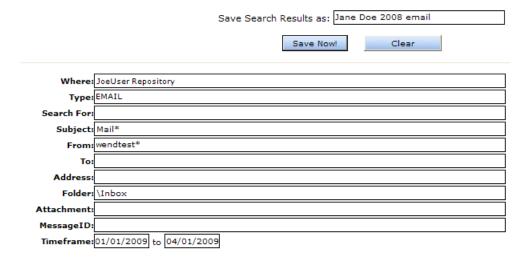


Figure 9 Save Results page

3. Enter the name of the results you are saving in the Save Search Results as field. The name should not exceed 60 characters if you plan to place the results in a legal hold (quarantine).

(To erase text entered in the Save Search Results as field, click Clear.)

Special characters @ $\% ^ \& # ()[] / \{+\} ^ ~ = |$ are not allowed.

- 4. Click Save Now!
- 5. To access the saved results, see "Accessing saved results" on page 34.

MOTE:

The results are not retrieved in chronological order, but are sorted chronologically after they have all been retrieved (query processing is finished). If you access saved results before the query is finished, the results are not sorted.

Accessing saved criteria

If you save the criteria used to define a query, you can access the saved criteria from the Query Manager page. Each item listed shows the name of the saved criteria and the date when you saved the criteria.

Twenty sets of query criteria can be saved at any one time. After that, a set must be deleted before you can save a new set of query criteria.

To access saved criteria:

Click Query Manager in the toolbar.

(You can also access this feature by right-clicking inside the Simple Search or Advanced Search page and selecting Query Manager.)

2. On the Query Manager page, click **Saved Criteria** to display all previously saved searches.



Figure 10 Saved Criteria view, Query Manager page

- 3. Complete any of the following tasks:
 - To resubmit the query, click **Reload**. The Advanced Search page with the saved criteria already entered is displayed. You can then resubmit the query by clicking **Find Now**.
 - To delete the saved criteria, click **Delete**. You are not prompted to confirm the deletion.
 - To switch to the Saved Results view, click Saved Results. Or right-click and select Saved Query Results.

Accessing saved results

You can access saved results from the Query Manager page. This includes results that have been placed in a quarantine repository. (See "Using quarantine repositories" on page 37 for information about those repositories.)

Each item listed shows the name of the result, its status (if unfinished), and the start and end dates of the search.

To access saved results:

1. Click Query Manager in the toolbar.

(You can also access this feature by right-clicking inside the Simple Search or Advanced Search page and selecting Query Manager.)

The default Query Manager page displays all saved results. You can also access this view by clicking **Saved Results** on the Query Manager page.

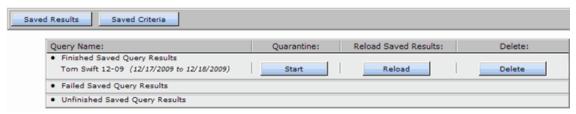


Figure 11 Saved Results view, Query Manager page

- Complete any of the following tasks:
 - To display the results, click **Reload**. The Query Results page is displayed.
 - To copy the saved results to a quarantine repository, click **Start**. A completed message appears in the row when the contents are copied to the quarantine repository.
 - To delete the saved results, click Delete.
 - To switch to the Saved Criteria view, click Saved Criteria. Or right-click and select Saved Query Criteria.

Sending search results

You can send copies of messages that are found in a search to your email account.

To send results:

- 1. Display the Query Results page by completing one of the following tasks:
 - Submit a simple or advanced search (see "Completing simple searches" on page 21 or "Completing advanced searches" on page 22).
 - Submit a search from previously saved criteria (see "Accessing saved criteria" on page 34).
 - Access previously saved results (see "Accessing saved results" on page 34).
- From the Query Results page, select the check box next to each item you want to send. Skip this step if you are sending all items on the page.
- 3. Click More Options to open the Options menu.
- 4. To send all results on the Query Results page, click **Send All Items**. To send the selected items, click **Send Checked Items**. A confirmation message is displayed when the items are sent.

Exporting search results

An export utility is required to export archived email or files from the IAP.

Email Content Type

- Exporting email to Microsoft Outlook: The HP EAs Exchange Outlook Plug-In must be installed on your computer. Microsoft .NET Framework version 2.0 or later is required for the utility to be installed.
- Exporting email to IBM Lotus Notes: Two methods are supported. The HP EAs Domino Export
 Search utility can be installed on your computer, or a Web application can be used to export
 email. Your system administrator will advise you of the method that your organization supports.
 Java Runtime Environment version 1.6 or later is required for the Export Search utility to be installed
 on your computer.

Information on exporting archived email to Outlook or Lotus Notes is detailed in the HP EAs for Microsoft Exchange User's Guide and HP EAs for IBM Lotus Domino User's Guide. The user guides are included on the documentation CD in those products.

Document Content Type (files)

Several requirements must be met to export archived files from the IAP:

- File export must be configured on the IAP system.
- The IAP File Export utility must be installed on your computer. (Microsoft .NET Framework version 2.0 or later is required for the utility to be installed.)
- The destination drive for the exported files must have at least 5 GB of free space available.

For information on exporting archived files from the IAP, click **Help** in the IAP File Export utility.

Using quarantine repositories

Documents are kept in the IAP according to the retention policy specified by your organization. After an item's retention period has expired, it is automatically deleted from the system.

Documents that are placed in a special repository called a quarantine repository are not subject to automatic deletion. As long as items are in this repository, they are preserved in a legal hold and cannot be deleted when their retention period expires.

When the hold is no longer necessary, the contents of the quarantine repository can be deleted. This action does not delete the items from the IAP. It releases documents from the legal hold and makes them subject once again to the retention period that was set for them.

This section describes how to create a quarantine repository and how to delete the repository when items no longer need to be saved.

Copying saved results to a quarantine repository

Use the instructions below to create a quarantine repository from saved query results. You can create as many quarantine repositories as you need.

NOTE:

A saved query name should not have more than 60 characters. If the limitation is exceeded, you will not be able to create a quarantine repository for the results.

If this situation occurs, reload the saved results, re-save them with a name less than 60 characters, and then copy the saved results to a quarantine repository using the procedure below.

To create a quarantine repository from saved query results:

- 1. Click Query Manager in the toolbar to access the saved results.
- 2. In the Query Name column, locate the row with the saved results.
- 3. Click **Start** in the Quarantine column to copy those saved results to a quarantine repository.
- 4. Click **OK** in the dialog box that appears.

"Quarantine in Progress" appears after the results name. When the copy is complete, "Quarantine Completed" appears after the results name and the quarantine repository is shown in the Where to Search list on the search page.

You have access automatically to the quarantine repositories you create, and you can work with quarantine repositories as you would with any repository. For instance, you can select a quarantine repository from the Where to Search list on the search page. The repository is listed under the name you gave the saved results. For example. "John Doe results 6–22–09."

Deleting the contents of a quarantine repository

Once the legal hold is not required, you can delete the quarantine repository. The documents in the repository return to the control of the retention manager. If an item's retention period has not expired, it remains archived in the IAP.

To delete a quarantine repository:

- Click Query Manager in the toolbar to access the saved results.
- In the Query Name column, locate the row with the saved results.
- Click **Delete** in the Quarantine column to remove access to the quarantine repository and release its contents from legal hold.

The quarantine repository is removed from the Where to Search list after you click Delete.

MOTE:

The Delete button is disabled if the quarantine failed or if it completed with errors.

Deletion of saved results is allowed only if the quarantine completed successfully or if the quarantine process has not yet begun.

5 Using the AuditLog

This section describes how to work with the AuditLog, the IAP's compliance system log. Major topics include:

- The AuditLog repository, page 39
- Searching the AuditLog, page 40
- Viewing AuditLogs, page 44

The AuditLog repository



AuditLog repositories are usually available only to legal or compliance officers. If the AuditLog repository does not appear in the Where to Search list on the search page, you do not have access.

When the AuditLog feature is enabled on the IAP, an AuditLog repository is created automatically for each domain. The AuditLog repository provides a method for creating a compliance system log. This is useful for demonstrating your company is adhering to compliance processes. The AuditLog records details about the following types of actions:

- Actions that users perform from the Web Interface, such as searching for an email, downloading a file, or viewing a message.
- Actions that are performed to manually delete email from the IAP. Logged actions include granting
 Administrative Delete privileges to a user from the IAP's Platform Control Center (PCC), and deleting
 emails from the IAP via the Administrative Delete feature in the Web Interface.
- Actions that are performed to merge duplicate copies of an email in IAP's Duplicate Manager.

For a complete list of the actions that are logged, see "Logged actions and descriptions" on page 41. For examples of AuditLogs, see "Viewing AuditLogs" on page 44.

Searching the AuditLog

You can complete either a simple or advanced search when searching the AuditLog repository. To perform a search:

Click New Search in the toolbar and select the simple or advanced search form.

÷∳: TIP:

If you need to search for multiple criteria, complete an advanced search.

2. From the Content Type list, select **document**.

NOTE:

An email search on an AuditLog repository will produce no results. You must perform a document search.

3. From the Timeframe list, select the time period to search.

Advanced searches only: As an alternative to the predefined time periods, you can specify a time period to search by entering the Start and end (To) dates. For example, to search for documents dated between March 8, 2009 and March 23, 2009, enter **03/08/2009** in the Start field and **03/23/2009** in the To field.

- 4. From the Where to Search list, select <domain>.userauditlog.
- Complete the Search for field by entering one or more of the search criteria in "Completing the Search for field" on page 41. Leave the field blank to see all logged actions performed during the time period.
- **6.** Advanced searches only: To refine the search, use one or more of the additional query fields shown in "AuditLog advanced search fields" on page 42.
- 7. Click **Find Now** to start the search.

The Query Results page appears. An AuditLog is generated for each session in which a logged action occurs.

Completing the Search for field

☆ TIP:

You can use Boolean operators AND, OR, and NOT to enter multiple criteria in this field. For example, jdoe AND Search; Mail OR Export; jsmith* NOT jsmithson. For more information on Boolean expressions, see "Boolean query expressions" on page 58.

You can also use wildcards (* and ?). See "Matching words" on page 54.

To complete the Search for field when performing a search of the AuditLog repository:

- Enter a specific user name, in one of the following forms:
 - User ID: Enter the login name of the user, such as **idoe**.
 - First Name: Enter the user's first name, such as John, as shown in the LDAP directory (address book).
 - Last Name: Enter the user's last name, such as Doe, as shown in the LDAP directory.

The search results will include the user's logged sessions in the Web Interface, plus any logged actions on email that was sent to or from the user.

The results might also include logged actions on email where the user's name was in the Subject header. This would depend on the form of the name you use in the search.

To search only for actions the user performed, use the Author field in the Advanced Search form.

Enter the type of action performed, from the table below.

Table 8 Logged actions and descriptions

Logged action	Description
	Actions performed by users in the Web Interface
Search	Simple or advanced searches performed by the user.
Query Result	Information about the query results returned or displayed.
Navigation	Navigation through the query results.
View Message	Email displayed from the query results.
View Document	Files displayed from the query results.
Download	Files downloaded by the user.
Mail	Email sent to the user.
Export	Email or files exported by the user.
Save Query	Query criteria saved by the user.
Save Query Result	Query results saved by the user.
Start Quarantine	Saved query results placed in a quarantine repository by the user.
Delete Quarantine	Quarantined query results deleted by the user.

Logged action	Description			
	Actions performed to delete email			
Login	IAP Admin login to the Platform Control Center (PCC), for the session in which Administrative Delete authority is granted.			
Admin Delete Authority	Administrative Delete authority granted to a user (from the PCC).			
Delete by Admin	Email deleted from the IAP by the Administrative Delete user. (Performed from the Web Interface.)			
	Action performed to merge duplicate copies of a message			
Duplicate BitFiles Merged	Messages with the same unique ID (hash) that were merged in an IAP Duplicate Manager job.			

A search on "View Message," for example, would return:

- · A list of all user sessions in which email messages were viewed during the specified time period
- The login of the user who viewed a message
- The date and time of the action

Opening an AuditLog session would display all actions performed during that session, plus additional information about the email that was viewed.

AuditLog advanced search fields

To refine an advanced search of the AuditLog repository, complete one or more of the following fields.

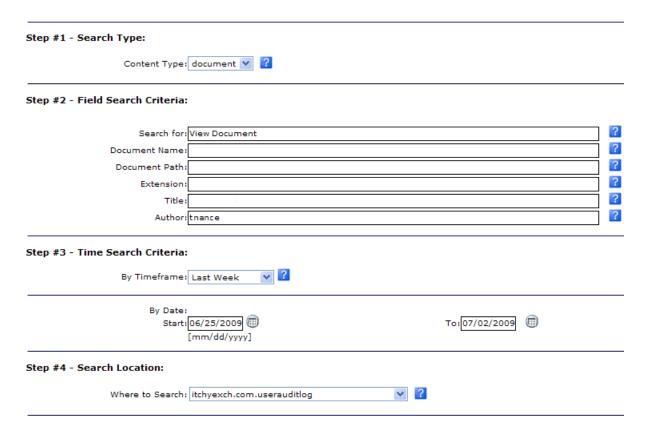


Figure 12 AuditLog advanced search

Table 9 Additional fields for AuditLog repository searches

Query field	Matches
	Name of the component generating the AuditLog. There are two options available: • Web Interface For logged actions performed by users in the Web Interface
Document Name	PCC Interface For logged actions performed by the IAP administrator in the PCC to create an Administrative Delete user
Document Path	Host or IP address of the server where the AuditLog was generated (the HTTP server or the PCC server.) For example: hp-s0-1-93.hp.com .
Extension	File extension. Not used because the AuditLog is always an XML file.
Title	Not used because it is not applicable to AuditLog files.

Query field	Matches
Author	 Search for: Actions performed by a specific user. Use one of the following forms to identify the user: User ID: Enter the login name of the user, such as idee. First Name: Enter the user's first name, such as John, as shown in the LDAP directory (address book). Last Name: Last Name: Enter the user's last name, such as Doe, as shown in
	the LDAP directory. • Messages merged during a Duplicate Manager job: Enter Merge Manager.

Viewing AuditLogs

The following information about an AuditLog session is listed on the Query Results page:

- User: Login ID of the user performing the logged actions.
- Session Start: Start time of the user's session.
- Session End: End time of the user's session.
- File Size: Size of the session AuditLog file.
- Server: Server (HTTP portal or PCC server) on which the logged session was captured.
- · Date: Date the AuditLog file was archived.

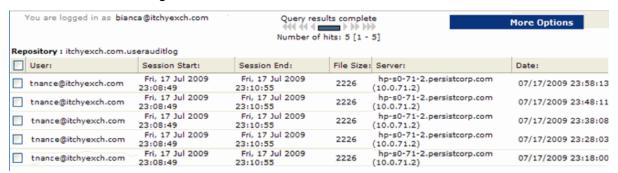


Figure 13 AuditLog query results

From the Query Results page, you can save the search criteria you entered to generate the AuditLog. See "Saving search criteria" on page 32.

To display the contents of a logged session in the viewing pane, click the item in the Query Results page. Double-click the item to display the AuditLog content in a new window. You can print the contents of an AuditLog by clicking **Print this page**.

Each logged session contains the following additional information:

- User Name: Name of the user performing the logged actions. For a Duplicate Manager job, the user is shown as MergeManager.
- Session ID: The ID of the logged session.
- Session Start Time: Start time of the session.
- Session End Time: End time of the session.
- User ID: Login ID of the user performing the logged actions. (Correlates with User Name.)
- Operation: Name of the logged action.
- TimeStamp: Date and time of the logged action.
- Details: Specific information about the logged action. This information varies by action.

User actions in Web Interface

AuditLogSession preview for " IAP Web Interface " Print this page						
	User N	ame:	Tim Nance			
	Sessio	n ID:	CADA2A43E71	CADA2A43E717A75C9088CF62D7F7ED8B		
	Session Start 1	Time:	Fri, 17 Jul 2009 23:08:49			
	Session End 1	Time:	Fri, 17 Jul 200	9 23:10:55		
	Use	er ID:	tnance@itchye	xch.com		
Operation	Time Stamp	Deta	ails			
Search	Fri, 17 Jul 2009 23:08:57	Docu	ument Type:	EMAIL		
		Rep	ository Name:	tnance@itchyexch.com Repository		
		Star	ting Date:	Fri, 17 Apr 2009		
		Ending Date:		Fri, 17 Jul 2009		
View Fri, 17 Jul 2009 23:09:15		Viewed Message		Mail #10000 from E-Sender @bianca-sender.		
Message		То	_	tnance@itchyexch.com		
		Fron	n	wendtest010000@itchyexch.com		
View Fri, 17 Jul 2009 23:09:40		View	ed Message	Mail #1 from E-Sender @bianca-sender1		
Message		То		tnance@itchyexch.com		
		From		wendtest000001@itchyexch.com		
View Fri, 17 Jul 2009 23:09:58 Viewed !		ed Message	Mail #1 from E-Sender @bianca			
Message		То		tnance@itchyexch.com		
F		Fron	n	wendtest000001@itchyexch.com		
Save Query	Fri, 17 Jul 2009 23:10:39	Docu	ument Type:	EMAIL		
Result		Que	ry Name:	results 7-17		
		Rep	ository Name:	tnance@itchyexch.com Repository		
		Star	ting Date:	Fri, 17 Apr 2009		
		Endi	ng Date:	Fri, 17 Jul 2009		

Figure 14 AuditLog for user actions in Web Interface

Duplicate Manager jobs

AuditLogSession preview for " Duplicate Merge Manager " Print this page			
	User Name:		MergeManager
	Session ID:		1246507201423
	Session Start Time:		Thu, 2 Jul 2009 01:00:04
		Session End Time:	Thu, 2 Jul 2009 01:00:13
		User ID:	MergeManager
Operation	Time Stamp	Details	
	Thu, 2 Jul 2009 01:00:11	Hash Used To Merge	bigfoot
Merged		Primary Master BitFile	10.0.204.4:/archive/TP_0000000000
		Secondary Master BitFile	10.0.172.3:/archive/TP_0000000000
		Master BitFile Group	02000c298679fc121d6c34d970
		BitFile Merged	10.0.172.4:/archive/TP_0000000000
		BitFile Merged	10.0.204.2:/archive/TP_0000000000

Figure 15 AuditLog for Duplicate Manager job

Administrative Delete actions

IAP administrator actions in PCC

AuditLogSession preview for '" IAP PCC Interface "				
User Name:		testFirst000001 testLa	ast000001	
Session ID:		C44B8FD911D802B2A173390F239D9571		
Session Start Time:		Wed, 10 Jun 2009 15:26:39		
Session End Time:		ime:	Wed, 10 Jun 2009 16:22:59	
User ID:		test000001@itchyexch.com		
Operation	Time Stamp	Det	ails	
Login	Wed, 10 Jun 2009 15:26:39	IAP	Admin User	test000001
		Acti	on Taken	Login
Admin Delete	Wed, 10 Jun 2009 15:27:03	IAP	Admin User	test000001
Authority Dele		ete Admin User	test000002@itchyexch.com	
		Acti	on Taken	Delete Admin Authority granted.
		Dat	e	06/10/2009 15:27:03

Figure 16 AuditLog for Administrative Delete actions in PCC

Administrative Delete actions in Web Interface

Operation	Time Stamp	Details	
Delete by Admin	Thu, 2 Jul 2009 00:41:54	From	test000003@itchyexch.com
		Subject	test
		Date	07/01/2009 17:27:00
		Smart cell IP addresses	10.0.172.3 / 10.0.204.4

Figure 17 AuditLog entry for email deletion

6 Troubleshooting problems in the Web Interface

Use the topics in this section to troubleshoot problems that can occur when using the Web Interface.

- Unable to display saved results, page 47
- Corrupted documents, page 47
- Wildcard errors in queries, page 47
- Query and display issues in Japanese, Chinese, and Korean documents, page 48
- Problems exporting email, page 49
- Problems exporting files, page 49

Unable to display saved results

Search results are saved for one week and then deleted. If you save the results of a query, but the IAP retention settings delete the files before the end of the week, the results still appear in the Web Interface. However, they cannot be reloaded from the saved search results. Clicking the saved results displays an error because the Web Interface cannot find the saved results on the IAP.

Corrupted documents

Email and files that are corrupted cannot be displayed in the Web Interface.

Wildcard errors in queries

You can use wildcards in the Search for field in simple and advanced searches and several advanced search fields. (See "Completing advanced searches" on page 22.)

However, if you use a wildcard incorrectly, an error message will appear when you submit your query.

Leading wildcards

Do not use a wildcard for the first character in a field. For example, *smith or ?smith are not valid queries.

Fuzzy searches

Wildcards cannot be used in fuzzy word searches. (A fuzzy word is a word that is textually similar to a literal query word.) For example, defin*~ or defin?~ are not valid queries.

For more information on fuzzy searches, see "Fuzzy words" on page 54.

Wildcards in phrase searches

Wildcards are not allowed in phrase queries (queries with spaces between words). For example, accounts* department or accounts? department are not valid queries.

Query and display issues in Japanese, Chinese, and Korean documents

Extra space appears in email Subject text

When the text in an email Subject field includes non-ASCII characters, the Web Interface may sometimes display a space in the text. The space is not present in the archived email.

The following example shows how the Subject text appears in an archived email, and how the same text appears when viewing the email in the Web Interface.

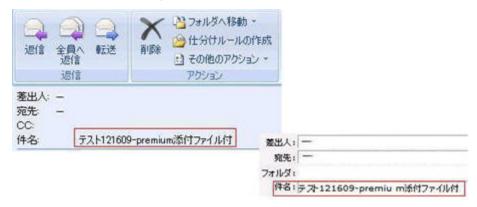


Figure 18 Extra space in email Subject field

Query on words with furigana returns no results

In Japanese documents, furigana are phonetic readings that are printed above or beside kanji (Chinese characters). When the IAP archives email and files, it cannot index words with furigana. Because of this limitation, you cannot search on words with furigana in the Web Interface.

Query on words in Hankaku-kana returns no results

The IAP cannot index Japanese words written in Hankaku-kana (half-width Katakana) in WordPerfect Office files (WordPerfect, Quattro Pro, and Presentations). For that reason, you cannot search on Hankaku-kana text in WordPerfect Office files and email attachments.

Query on email folder name returns no results

Spaces in the name of an email folder are not indexed in Chinese, Japanese, and Korean. Searching for a folder name that contains spaces in these writing systems will fail, even if you surround the name in quotes.

Japanese underscore character not displayed

If your computer runs Microsoft Windows XP Service Pack 2 or later, the underscore ("_") Japanese multi-byte character might not be visible in the Web Interface under the following conditions:

- Your computer's language option for non-Unicode languages (Control Panel > Regional and Language options > Advanced) is set to English and the language in the Web Interface is set to Japanese
- The non-Unicode language is set to Japanese and the Web Interface language is set to English
- The non-Unicode language is set to Japanese and the Web Interface language is set to Japanese

RTF formatted email

At this time, we do not provide IAP Web Interface support for the display of decorated information options (such as font, size and color) in RTF formatted email.

Problems exporting email

For information on problems that may occur when you attempt to export email, see your HP EAs for Microsoft Exchange User's Guide or HP EAs for IBM Domino User's Guide, as appropriate. The user guides are included on the documentation CD in those products.

Problems exporting files

For information on problems that may occur when you attempt to export files, click **Help** in the IAP File Export utility and then click **Troubleshooting** in the Help contents.

The IAP File Export utility must be installed on your computer in order to export files from the IAP.

7 Query expression syntax and matching

This section describes the IAP Web Interface syntax used to search for archived documents (files or email messages), and explains how queries are matched against documents.

Major topics include:

- Query expressions, page 51
- Word characters, page 51
- Letters and digits in different character sets, page 52
- Matching words, page 54
- Matching similar words, page 54
- Matching word sequences, page 55
- Boolean query expressions, page 58
- Query expression examples, page 61

Query expressions

Query expressions can be as simple or as complex as needed. The essential idea behind document retrieval is that query words are compared with document words to find a match. You can also:

- Look for document words that are textually similar, but not necessarily identical, to query words. See "Matching similar words" on page 54.
- Look for word sequences in a document: words that are near each other, and in a particular order. See "Matching word sequences" on page 55.
- Combine query words using logical (Boolean) operators (AND, OR, NOT). See "Boolean query expressions" on page 58.

Together, these query constructs provide considerable power to find what you need, provided you learn to use them well.

The way query expressions are interpreted is similar to the way documents are indexed when archived. Text is parsed (broken down) into words. Remaining characters are considered separators and ignored. Query expressions are fundamentally composed of words, no matter how complex the expression.

For indexing and searching, a word need not belong to a natural language, such as English. For example, wt6_ht3 is a valid document word or query word. Query words can contain wildcards, such as in £??t.

Word characters

When the system examines a query expression to determine its words, some characters are not included in query words, but are treated as word separators. When a document is archived, indexing determines which document words are available for searching in the same way.

Learning the rules of creating query words means also learning the rules of document indexing and, therefore, what words you can search for.

Topics include:

- Word characters and separators, page 52
- Regular expression definition of English word characters, page 52

Word characters and separators

Word characters include all uppercase and lowercase letters, digits, and the following additional characters:

- _ (underscore)
- # (number/pound/hash sign)
- & (ampersand)

All other characters are separators (except in queries, wildcards ? and *, and special query characters \sim , ", -, and !).

However, && by itself is not a word. It is a Boolean operator. When combined with at least one more word character, && can be part of a word. For example, a&&b is a word.

Query analysis and document indexing are not case-sensitive. Uppercase and lowercase letters are treated the same.

Regular expression definition of English word characters

The following regular expression provides, in succinct form, a complete specification of English word characters (except for treatment of && as a non-word):

$$[A-Za-z0-9_{\&}] +$$

Letters and digits in different character sets

Topics include:

- Letters and digits defined, page 52
- Letters and digits in files, page 53

Letters and digits defined

All letters and digits are word characters. What IAP considers a letter or digit depends on the character set encoding used. For US ASCII encoding, letters are uppercase and lowercase English letters (A-Z, a-z). For ISO 8859-1 (Latin-1) encoding, used for Western European languages, accented letters are included. Most ideographic characters, such as those used in Asian languages, are also considered letters.

Whatever the language and encoding used for a particular document (file or email message), IAP maps encoded characters to the Unicode 2.0 standard. The Unicode 2.0 standard is then used to determine if a given character is a letter or a digit (or neither):

- A letter is any Unicode character in one of the following Unicode categories: Ll (lowercase letter), Lu (uppercase letter), Lt (title case letter), Lm (modifier letter), or Lo (other letter).
- A digit is any Unicode character whose Unicode name contains the word DIGIT, provided it is not in the range \u2000 (en quad = en space) through \u2FFF (ideographic description future).

Letters and digits in files

Although all letters and digits are word characters, their treatment in files (including email message attachments) depends on the character encoding used. You can search for any words in email message bodies and headers, regardless of the encoding.

You can search for words in files (including email body, header, attachments, and indexed documents) provided the character encoding is shown in the following table.

The IAP does not perform automatic character set detection. If the character set is not provided in the email or file, the IAP uses a default of ISO-8859-1 (Latin 1).

Table 10 Supported character sets

Supported character set	Description
ISO-LATIN-1	Western European, extended ASCII
ISO-8859-1	Western European, extended ASCII
ISO-8859-15	Western European, extended ASCII
WINDOWS-1252	(Code pages supported by Windows) Latin 1
US-ASCII	7-bit American Standard Code for Information Interchange
UTF-7	Universal (all languages)
UTF-8	Universal (all languages)
ISO-8859-2	Eastern European
KOI8-R	Cyrillic (Russian and Bulgarian)
WINDOWS-1251	(Code pages supported by Windows) Cyrillic
WINDOWS-1253	(Code pages supported by Windows) Greek
WINDOWS-1254	(Code pages supported by Windows) Turkish
WINDOWS-1255	(Code pages supported by Windows) Hebrew
WINDOWS-1256	(Code pages supported by Windows) Arabic
WINDOWS-1257	(Code pages supported by Windows) Baltic: Estonian, Latvian, Lithuanian
ISO-8859-9	Turkish
WINDOWS-1258	(Code pages supported by Windows) Vietnamese
GB18030	Chinese (Mainland)
GB2312	Chinese (Mainland)
GBK	Chinese (Mainland)
EUC-TW	Chinese (Taiwan)
BIG5	Chinese (Taiwan)

Supported character set	Description
BIG5-HKSCS	Chinese (Hong Kong)
EUC-KR	Korean
ISO-2022-KR	Korean
Johab	Korean
KS_C_5601-1987	Korean
ISO-2022-JP	Japanese
EUC-JP	Japanese
SHIFT-JIS	Japanese

Matching words

Matching words is not case-sensitive: cat, Cat, cAt, and CAT all match. Corresponding uppercase and lowercase letters, such as A and a, are treated the same in all respects.

There are two kinds of query words:

- Literal words that do not contain wildcards
- Words containing occurrences of one or both wildcard characters * and ?

A literal word in a query expression matches the same word, character for character (case ignored), in an archived document. A word with wildcard characters (* or ?) matches a document word in the same way, character by character, except for the following:

- A ? matches any single character in a document word. For example, b??t matches beat, beet, boat, blot, best, bust, bout, and so on.
- An * matches any sequence of characters in a document word, including a sequence of no characters. For example, f*t matches the document words foot, feet, fit, fault, and ft; and f* matches any document word beginning with f.

You can use any number of wildcard characters (* or ?) in a query word, but you cannot use a wildcard at the beginning of a query word. An error message results. For example, *ion is not a valid query.

Matching similar words

Topics include:

- Fuzzy words, page 54
- Measuring word similarity, page 55

Fuzzy words

You can search for document words that are textually similar to a given literal query word (that is, one containing no wildcards). To do this, append a tilde (\sim) character to the word, creating a fuzzy

word. For example, the fuzzy word define~ matches the similar words defined and definite, but does not match defining, definition, indefinite, or pine. It also matches define itself.



Do not use wildcards in fuzzy searches. For example, foo*~ or foo?~ is not a valid query

Measuring word similarity

The edit distance (also called Levenshtein distance) between two words is the number of single-character operations (deletion, replacement, or insertion) required to change one word into the other word.

For example, the edit distance between define and pine is three: two deletions (d and e) and one replacement (f by p). The distance between define and definite is also three (e replaced by i; te inserted).

The search engine considers *define* more similar to *definite* than to *pine*, even though the edit distances are the same (three), because the edit distance (number of character changes) is compared to the word length (of the shorter of the query and document words). Two words are closer, for querying purposes, if it takes less to change one word into the other word relative to their lengths.

The similarity ratio used by the search engine is d/min(query, doc), where d is the edit distance, min is a function that returns the lesser of its arguments, and query and doc are the lengths of the query word and document word, respectively. A fuzzy word matches a document word if this ratio is no more than 0.5.

Examples:

Words compared	Similarity ratio	Match?
define, definite	3/min(6, 8) = 3/6 = 0.5	yes
define, pine	3/min(6, 4) = 3/4 = 0.75	no (0.75 > 0.5)

Matching word sequences

You can use word sequences to find documents with words that occur in a specified order and are separated by a specified maximum distance.

Topics include:

- Simple word sequences, page 55
- Proximity word sequences, page 56

Simple word sequences

To search for an ordered sequence of words, use a simple word sequence, which is a list of literal query words (no wildcards) separated by spaces (or other separators) and enclosed in quotes ("). A document matches a simple word sequence if all words occur in the document in the same order, with no intervening words.

For example, the sequence "like a rolling stone" does not match a document with the text like a large rolling stone because of the intervening word large.

Proximity word sequences

You can use simple word sequences to search for words separated by separators but not by other words. To search for document words that are in an ordered sequence, but might be separated by other words, use a proximity word sequence.

To write a proximity word sequence, use the same syntax as a simple word sequence, but append a tilde (\sim) character to the second quote, and follow that with a numeric proximity value. The proximity value represents the maximum number of other document words that can occur between any two successive words of the sequence. A document matches a proximity word sequence if all words occur in the document in the same order, with at most N intervening words, where N is the proximity value.

For example, the sequence "bird garden stone"~3 matches any document that has these three words in this order, with bird and garden separated by no more than three words, and garden and stone separated by no more than three words. This sequence matches a document with the text a bird in the rose garden is near a stone because there are at most three words between successive sequence words. This sequence also matches a bird garden with a stone for the same reason.

Simple word sequences are a special case of proximity word sequences: ". . . " is the same as ". . . " \sim 0. Any documents found by ". . . " \sim N are also found by ". . . " \sim M, when M > N.

Matching word sequences in files and email attachments

IAP renders files and email attachments (like spreadsheets and PDF files) into text words. When the IAP renders a document, it follows the document application's internal representation of the file.

Certain file types, for example spreadsheets, look very different internally than they do externally. This means that word sequence in the external application representation which the end user sees may differ from the internal application representation. IAP query matching uses the internal application representation.

Separators are ignored

IAP renders text into words. Remaining characters such as periods, commas, spaces, and newlines are considered separators and are ignored. Phrase queries ignore all formatting elements and non-word characters. The following original plain text of:

"This was news to Mr. Smith. Johnson, however, knew better." matches the phrase query of:

"Smith Johnson"

This is because internally, the two plain text sentences are represented as one long string of continuous words: "This was news to Mr Smith Johnson however knew better."

Sequence is not intuitive

Internally in the file's original application, a large multi-page document or a single page spreadsheet equates to a long text sequence. Text may not appear in the same sequence internally as it appears externally. Also, multiple instances of the same text in certain file types are represented as a single instance.

Spreadsheets

Look at the external representation of the following spreadsheet example.

Table 11 Excel spreadsheet

United States Presidents named John			
John	Adams	1797-1801	
John Quincy	Adams	1825-1829	
John Fitzgerald	Kennedy	1961-1963	
John	Tyler	1841-1845	

The specific order in which the text in the cells is stored internally depends on:

- The version of the product, for example Excel or Quattro Pro, used to generate the spreadsheet
- The insertion order for the spreadsheet text

For the spreadsheet above, assuming the cell text for names were entered in the displayed order of top left to bottom right (John Adams was entered first), and the title and dates were entered after the names were entered, most versions of spreadsheets store the text internally as follows:

John
Adams
John Quincy
John Fitzgerald
Kennedy
Tyler
United States Presidents named John
1797–1801
1825–1829
1961–1963
1841–1845

Note the following features of the internal representation:

- Text sharing: Where certain text appears in more than one cell in the spreadsheet, the text may
 appear only once in the internal representation. In this example, this is the case with the text "John"
 and "Adams". (Note that not all versions of Excel consistently share text in exactly this way.)
- This text sharing only occurs at the level of the entire text of a cell, and never occurs within cells. Thus, "John Quincy" and "John Fitzgerald" remain whole and independent.
- Even accounting for text sharing, the specific ordering of various cell text in the internal representation does not necessarily follow presentation order, and instead often follows insertion order.

Because of these factors, text sequence matches in an Excel spreadsheet (for example) are only consistent with the spreadsheet as viewed in Excel if the matched text appears wholly within a cell. However, it is possible for sequences to match in inconsistent ways across cell text depending on the precise version and editing history of that spreadsheet.

For the spreadsheet and order of insertion shown above, the following queries would match:

```
"John Adams"
```

[&]quot;Adams John"

[&]quot;Quincy John"

[&]quot;John Fitzgerald Kennedy"

[&]quot;Presidents named John"

And the following queries would **not** match:

"John Tyler"

"Quincy Adams"

"John Quincy Adams"

"John Adams 1797-1801"

PDF documents

PDF documents are another case where the internal text representation can vary widely from the visible presentation in PDF readers. The following issues can arise:

- Text sequences can appear out of order on the same page depending on how the page was composed.
- Text can appear doubled or can have spacing inserted into or removed from the internal representation to assist some specific visual presentation.

In general, PDF documents generated via print drivers are far more susceptible to these issues than PDF documents generated directly using Acrobat and other composing tools. However, because of the nature of PDF itself, even they are not immune.

Boolean query expressions

You can combine words, fuzzy words, and word sequences using the Boolean (logical) operators AND, OR, and NOT. These operators must be uppercase.

- Using the AND and OR operators, page 58
- Using the NOT operator, page 59
- Separators, page 60
- Sub-expressions, page 60
- Nested query expressions, page 60

Using the AND and OR operators

AND is the default connector in query expressions. You do not need to supply AND explicitly. It is assumed, if neither AND nor OR is used explicitly. For example, the query peace quiet is equivalent to the query peace AND quiet.

The following table describes Boolean AND and OR operators, where exp1 and exp2 represent a word, word sequence, or other Boolean query expression.

Table 12 Boolean AND and OR operators

Syntax	Matches
exp1 OR exp2	all documents that match either exp1 or exp2
exp1 AND exp2 alternative syntax: exp1 && exp2 alternative syntax: exp1 exp2	all documents that match both exp1 and exp2

Using the NOT operator

The Boolean NOT operator excludes every term after NOT in a query.

For example, the query beta* NOT beta2 would look for beta1 or beta05, but not beta2.

For IAP searches, the NOT operator must always connect at least two terms or sub-expressions (such as yes NOT no), but the query cannot consist solely of negative criteria (such as (NOT yes) OR (NOT no)).

The following table shows examples of legal and illegal IAP queries using the NOT operator:

NOT quiet	illegal
(NOT quiet) AND (NOT blue)	illegal
NOT NOT quiet	illegal
blue NOT quiet	legal
nois? NOT noisy	legal

Example of queries using NOT operator

In the example below, five email messages are archived that contain the following text:

Message 1 John V. Brown

Message 2 Jim Brown

Message 3 Benefits for Brown, Jim

Message 4 Jim Smith

Message 5 Benefits for Brown, Sally

The following queries in the Search for field use the NOT operator correctly and successfully locate the relevant messages:

Table 13 Boolean NOT operator properly used in query

Query	Result
brown NOT jim	Message 1 Message 5
(John OR Jim) NOT smith	Message 1 Message 2 Message 3
(benefits AND Brown) NOT Jim	Message 5
brown NOT (jim OR sally)	Message 1

Separators

Boolean operators must be surrounded by one or more separators, typically white space. For example, the query peas && carrots is not equivalent to the query peas && carrots; peas&&carrots is a single word.

Negation operators (- and !) are exceptions to this rule. They must be preceded by a separator, but they need not be followed by a separator. For example, carrot-a6 is a single query word, but carrot -a6, like carrot (- a6), is equivalent to the Boolean expression carrot NOT a6.

Sub-expressions

You must connect at least two sub-expressions with the operators NOT (- or !), AND (&&), and OR. The following table shows examples of legal and illegal queries using sub-expressions:

omega NOT alpha	legal
alpha AND omega	legal
alpha OR omega	legal
NOT alpha	illegal
NOT NOT alpha	illegal
OR alpha	illegal
OR OR alpha	illegal
AND omega	illegal
AND AND omega	illegal

Nested query expressions

You can nest Boolean query expressions using Boolean expressions as arguments of Boolean expressions. For example, the following query searches for documents containing alpha and beta but not omega:

(alpha AND beta) NOT omega

Query expression examples

The following are examples of query expressions.

Table 14 Query expression examples

Query expression	Finds documents with
peace OR quiet	Either peace or quiet, or both, in either order.
peace quiet peace AND quiet peace && quiet	Both peace and quiet, in either order.
peace&&quiet	The single word peace&&quiet.
peace or quiet	The three words <i>peace, or,</i> and <i>quiet,</i> in any order. "or" is a word. The OR operator must be uppercase.
not quiet	The words not and quiet. The NOT operator must be uppercase.
NOT quiet	Illegal. A query cannot be purely negative and must have some positive expression.
peace & quiet	The three words <i>peace</i> , &, and <i>quiet</i> , in any order. & is a word character. The AND operator is implied.
peace quiet	Both peace and quiet. is a separator. The AND operator is implied.
peace NOT quiet peace -quiet -quiet peace	The word <i>peace</i> but not <i>quiet</i> .
peace AND quiet OR silence	Avoid using. Parentheses are needed: peace AND (quiet OR silence).
quiet OR silence AND peace	Avoid using. Parentheses are needed: quiet OR (silence AND peace).
pea*	Any word starting with pea such as: pea, peas, peace, or peach.
pea*c*	Words such as: peace, peach, or peaches.
"peace quiet"	Both peace and quiet, in that order, with no intervening words. Examples: peace quiet or peace \$^%+{} quiet.
"peace quiet"~1	Both peace and quiet, in that order, separated by at most one word. Examples: peace and quiet; peace, now;%^\$ quiet; peace quiet; or peace george quiet.
peace~	Words similar to peace such as: peaches, piece, place, or plate.
(peace quiet) NOT "peace quiet"	Both peace and quiet, but not peace followed immediately by quiet. Examples: quiet peace; quiet blue peace; or peace, water, land, quiet.

A Indexed file types and MIME types

The following file types and MIME content-types are indexed by IAP 2.1. You can search the contents of archived files or email attachments if their file type is listed in this table.

Table 15 IAP indexed file types and MIME types

File extension	File type	MIME content-type
.xml	XML document	text/xml
.txt	Plain text file; treated as ISO- 8859-1 unless otherwise spe- cified	text/plain
.htm, .html, .stm	HTML document	text/html, rtf/html
.rtf	Rich text format	rtf/text, application/rtf
.dat	TNEF (for Microsoft Exchange)	ms/tnef
.mht, .mhtml, .nws, .eml	Email message	message/RFC 822
.doc, .dot	Microsoft Word 97-2003 document	application/msword
.xla, .xlc, .xlm, .xls, .xlt, .xlw	Microsoft Excel 97-2003 docu- ment	application/vnd.ms-excel, application/ms-excel
.pot, .pps, .ppt	Microsoft PowerPoint 97-2003 document	application/vnd.ms-powerpoint, application/vnd.msppt
.pdf	Adobe Portable Document format	application/pdf
.zip	ZIP archive	application/zip
.docx	Microsoft Word 2007 document	application/vnd.openxmlformats-officedocument. wordprocessingml.document
.docm	Microsoft Word 2007 macro- enabled document	application/vnd.ms-word.document.macroEnabled.12
.dotx	Microsoft Word 2007 template	application/vnd.openxmlformats-officedocument. wordprocessingml.template
.dotm	Microsoft Word 2007 macro- enabled document template	application/vnd.ms-word.template.macroEnabled.12
.xlsx	Microsoft Excel 2007 workbook	application/vnd.openxmlformats-officedocument. spreadsheetml.sheet

File extension	File type	MIME content-type
.xlsm	Microsoft Excel 2007 macro- enabled workbook	application/vnd.ms-excel.sheet.macroEnabled.12
.xltx	Microsoft Excel 2007 template	application/vnd.openxmlformats-officedocument. spreadsheetml.template
.xltm	Microsoft Excel 2007 macro- enabled workbook template	application/vnd.ms-excel.template.macroEnabled.12
.xlam	Microsoft Excel 2007 add-in	application/vnd.ms-excel.addin.macroEnabled.12
.pptx	Microsoft PowerPoint 2007 presentation	application/vnd.openxmlformats-officedocument. presentationml.presentation
.pptm	Microsoft PowerPoint 2007 macro-enabled presentation	application/vnd.ms-powerpoint.presentation. macroEnabled.12
.ppsx	Microsoft PowerPoint 2007 slide show	application/vnd.openxmlformats-officedocument. presentationml.slideshow
.ppsm	Microsoft PowerPoint 2007 macro-enabled slide show	application/vnd.ms-powerpoint.slideshow. macroEnabled.12
.potx	Microsoft PowerPoint 2007 template	application/vnd.openxmlformats-officedocument. presentationml.template
.potm	Microsoft PowerPoint 2007 macro-enabled presentation template	application/vnd.ms-powerpoint.template. macroEnabled.12
.wpd	Corel WordPerfect for Windows – versions through Version 12.0, X3	application/wordperfect, application/wpd
.qpw, .wb1, .wb2, .wb3	Corel Quattro Pro for Windows – versions through Version 12.0, X3	application/qpw, application/wb1, application/wb2, application/wb3
.shw	Corel Presentations – versions through Version 12.0, X3	application/presentations

B Additional indexing detail for Microsoft Office

The tables below list the Microsoft Office features and document properties that are indexed (and not indexed) by IAP 2.1. Indexed features and properties can be used in Web Interface searches.

The tables cover Microsoft Office versions 97-2003 and 2007.

Microsoft Office supported features

Table 16 Microsoft Office supported features

Feature	Microsoft Word	Microsoft PowerPoint	Microsoft Excel
Contents	Yes	Yes	Yes
Table	Yes	Yes	Yes
Textbox	Yes	Yes	Yes
Header/Footer	Yes	Yes	Yes
Comment	Yes	PowerPoint 97-2003: Yes PowerPoint 2007: No	Exel 97-2003: Yes Excel 2007: No
FootNote/EndNote	Yes	N/A	N/A
Signature	Yes	No	Exel 97-2003: Yes Excel 2007: No
Chart	Yes	Yes	Yes
Object (Microsoft Office, WordPad)	Yes	Yes	Yes
Embedded Objects (OLE)	Yes	Yes	Yes
Notes	N/A	Yes	N/A
WordArt	Yes	PowerPoint 97-2003: No PowerPoint 2007: Yes	Yes
SmartArt	Word 97-2003: No Word 2007: Yes	PowerPoint 97-2003: No PowerPoint 2007: Yes	Excel 97-2003: No Excel 2007: Yes

Feature	Microsoft Word	Microsoft PowerPoint	Microsoft Excel
Sheet's name	N/A	N/A	Excel 97-2003: Yes Excel 2007: No

Microsoft Office supported file properties

Table 17 Microsoft Office supported properties

Туре	Property	Microsoft Word	Microsoft PowerPoint	Microsoft Excel
	Author	Yes	Yes	Yes
	Title	Yes	Yes	Yes
	Subject	Yes	Yes	Yes
Decreased Branching	Keywords	Yes	Yes	Yes
Document Properties	Category	Yes	Yes	Yes
	Status	Yes	Yes	Yes
	Comments	Yes	Yes	Yes
	Location	No	No	No
	Туре	No	No	No
	Location	No	No	No
	Size	No	No	No
Advanced Properties:	MS-DOS name	No	No	No
General	Created	No	No	No
	Modified	No	No	No
	Accessed	No	No	No
	Attributes	No	No	No
Advanced Properties: Statistics	Created	No	No	No
	Modified	No	No	No
	Accessed	No	No	No
	Printed	Yes	Yes	Yes

Туре	Property	Microsoft Word	Microsoft PowerPoint	Microsoft Excel
	Last saved by	Yes	Yes	Yes
	Revision number	Word 97-2003: No Word 2007: Yes	PowerPoint 97-2003: No PowerPoint 2007: Yes	Excel 97-2003: No Excelt 2007: Yes
	Statistics	No	No	No
	Checked by	Yes	Yes	Yes
	Client	Yes	Yes	Yes
	Date completed	Yes	Yes	Yes
	Department	Yes	Yes	Yes
	Destination	Yes	Yes	Yes
	Disposition	Yes	Yes	Yes
	Division	Yes	Yes	Yes
	Document number	Yes	Yes	Yes
	Editor	Yes	Yes	Yes
Advanced Properties: Custom	Forward to	Yes	Yes	Yes
	Group	Yes	Yes	Yes
	Language	Yes	Yes	Yes
	Mailstop	Yes	Yes	Yes
	Office	Yes	Yes	Yes
	Owner	Yes	Yes	Yes
	Project	Yes	Yes	Yes
	Publisher	Yes	Yes	Yes
	Purpose	Yes	Yes	Yes
	Received from	Yes	Yes	Yes
	Recorded by	Yes	Yes	Yes
	Recorded date	Yes	Yes	Yes

Туре	Property	Microsoft Word	Microsoft PowerPoint	Microsoft Excel
	Reference	Yes	Yes	Yes
	Source	Yes	Yes	Yes
	Status	Yes	Yes	Yes
	Telephone number	Yes	Yes	Yes
	Typist	Yes	Yes	Yes
Advanced Properties: Contents	Document Contents	No	No	No
	Title	Yes	Yes	Yes
	Subject	Yes	Yes	Yes
	Author	Yes	Yes	Yes
	Manager	Yes	No	Yes
	Company	Yes	No	Yes
Al ID II	Category	Yes	Yes	Yes
Advanced Properties: Summary	Keywords	Yes	Yes	Yes
	Comments	Yes	Yes	Yes
	Hyperlink base	Word 2007: Yes Word 97–2003: No	PowerPoint 97-2003: No PowerPoint 2007: Yes	Excel 97–2003: No Excel 2007: Yes
	Template	Word 2007: Yes Word 97–2003: No	No	No

Index

Symbols	conventions
&&	document, 9
in Boolean query expressions, 58	text symbols, 10
iii booledii quei y expressions, 50	copying
	results to a quarantine repository, 37
, 20	Corel Presentations, 15, 63
	creating
A	quarantine repository, 37
access control list (ACL)	D
definition, 14	default Boolean connective (AND), 58
AND queries, 58	definition
archiving	
definition, 14	access control list (ACL), 14
audit queries, 33	archiving, 14
AuditLog repository	document, 14
accessing, 39	IAP, 13
	indexing documents, 14
D	repository, 14
В	routing rule, 14
Boolean queries	deleting
AND and OR operators, 58	quarantine repositories, 38
characters, 51	saved criteria, 34
expressions, 58	digits, 52
nested, 60	displaying
NOT operator, 59	results, 29
separators, 60	saved criteria, 34
sub-expressions, 60	saved results, 34
300 expressions, 00	document
	conventions, 9
C	definition, 14
cannot display saved results, 47	related documentation, 9
case sensitivity	document archiving
Boolean queries, 58	explanation, 14
matching words, 54	dropped caps, 16
word characters, 51	DWA Extension, 13
changing	
IAP Web Interface language, 20	F
IAP Web Interface password, 20	E 6 (E4.)
Chinese query issues, 48	Email Archiving software (EAs)
content-type indexing, 15, 63	applications for users, 13
contents	embedded messages, 15
indexing, definition, 14	Excel, 15, 65, 66
control list	export problems
definition, 14	email, 49
•	files, 49

exporting email, 36 files, 36 expressions, query about, 51 Boolean, 58 examples, 61 languages, 52, 53 letters and digits, 52 matching words, 54 separators, 51 sequences, 55 sequences, matching, 55 word characters, 51	indexing documents definition, 14 indexed file types, 15, 63 indexed MIME content-types, 63 what IAP does not index, 15 what IAP indexes, 15 Integrated Archive Platform See IAP Japanese query issues, 48 K Korean query issues, 48
File Export, 13 file type indexing support, 15, 63 furigana, 48 fuzzy words, 54	Language, changing IAP Web Interface, 20 languages, query expressions, 52, 53 letters, 52
Н	Levenshtein distance, 54
half-width Katakana, 48	logging in and out
Hankaku-kana, 48	IAP Web Interface, 17
help, obtaining, 10 HP	Lotus Notes options, 13
Subscriber's choice Web site, 11 technical support, 10	M
HTML formatting, 15	Message ID displaying, 27 Microsoft Office
	indexing limitations, 16
IAP	Microsoft Office applications, 15, 65, 66
definition, 13	Microsoft Word, 15, 65, 66
IAP Web Interface, 14	MIME content-type indexing, 15, 63
advanced searches, 22 basics, 17	
changing language, 20	N
changing password, 20	New Search button
display problems, 47	IAP Web Interface, 18
query problems, 47 Query Results page, 29	non-indexed file types, 16 NOT queries, 58
requirements, 17	
simple searches, 21	0
supported Web browsers, 17 toolbar, 18	OR queries, 58
troubleshooting, 47	Outlook Plug-In
implicit Boolean connective (AND), 58	description, 13
	OWA Extension, 13
	P
	•
	PDF files, 15, 63

PowerPoint, 15, 65, 66	S
Preferences button	saving
IAP Web Interface, 18	query or search criteria, 32 query results, 32
Q	search criteria
quarantine repositories, 32, 37	deleting, 34
creating, 37	displaying saved criteria, 34
deleting, 38	saving, 32 Search for field
Quattro Pro, 15, 63	
query criteria	IAP Web Interface, 18
deleting, 34	search results
displaying saved criteria, 34	displaying, 29
saving, 32	displaying saved results, 34
query expressions	exporting, 36
about, 51	quarantine repository, 37
Boolean, 58, 60	saving, 32
examples, 61	sending, 35
languages, 52, 53	searching
letters and digits, 52	advanced searches, 22
separators, 51	AuditLog, 40
sequences, matching, 55	query syntax, 51
word characters, 51	search basics, 18
query issues	simple searches, 21
Japanese, Chinese, Korean documents, 48	sending
Query Manager button	query or search results, 35
IAP Web Interface, 18	separators
query problems	characters, 51
wildcards, 47	matching word sequences, 55
query results	similarity, matching words, 54
displaying, 29	simple word sequences, 55
displaying saved results, 34	Subscriber's choice, 11
saving, 32	symbols in text, 10
sending, 35	,
Query Results page, 29	T
Query Results page, 27	
R	technical support HP, 10
	text symbols, 10
related documentation, 9	TNEF, 15, 63
repository	toolbar
definition, 14	IAP Web Interface, 18
requirements	troubleshooting
IAP Web Interface, 17	IAP Web Interface, 47
results	in a veb interface, 47
displaying, 29	
displaying saved results, 34	U
retrieving large number of documents, 33	Unicode standards, 52
RFC 822 messages, 15, 63	officode sidfladias, 32
routing rule	
definition, 14	W
	Web Interface
	See IAP Web Interface
	Web sites
	HP Software support, 10
	HP Subscriber's choice, 11

```
wildcard characters, 54
Word, 15, 65, 66
word sequences
matching, 56
proximity, 56
WordPerfect, 15, 48, 63
WordPerfect Office applications, 15, 63
words, query
characters and separators, 51
fuzzy, 54
letters and digits, 52
literal, 54
matching, 54, 55
sequences, 55

Z
ZIP files, 15, 63
```