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## **IANA Registry for IMAP Extended SEARCH Return Options and Data Tags**

### **Abstract**

This document creates a registry of IMAP Extended Search Return Options and Data Tags (RFC 4466) in order to help developers and IMAP extension writers track interactions between different extensions.

### **Open Issues**

\*Is Expert Review the correct registration policy?

\*Should we also add a registry of SEARCH criteria?

### **Status of This Memo**

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## 1. Introduction

The Internet Message Access Protocol (IMAP) [[RFC3501](#)], [[RFC9051](#)] is used for accessing and manipulating email messages on a server. Over the years, the syntax of the IMAP SEARCH command has been extended to include return options and corresponding return data in the response [[RFC4466](#)]. There is currently no easy way to find out all of the return options and data tags defined by IMAP extensions published in RFCs, which makes it quite difficult for IMAP extension writers and IMAP implementation developers to foresee interactions between such extensions.

This document creates a registry of IMAP Extended Search Return Options and Data Tags in order to help developers and IMAP extension writers track interactions between different extensions.

## 2. IANA Considerations

### 2.1. IMAP ESEARCH Return Option and Data Tag Registration Template and Procedure

IANA is requested to create a new registry for IMAP ESEARCH Return Options and Data Tags. Registration of both options/tags specified in IETF Stream RFCs and vendor specific actions is allowed and encouraged. The registration template contains:

1. name of the return option;

2. any implied return data tags;
3. short description;
4. references: one or more documents describing the option/tag and any significant updates to its definition (this field is required for option/tag described in RFCs and is optional otherwise);

The registration procedure for this registry is Expert Review, per [RFC8126], [Section 4.5](#). The Designated Expert only checks that the name of the return option or return data tag being registered matches the documentation, that the description field is accurate, that the correct documents are referenced and that the list of relevant documents is as complete as possible. The Designated Expert can't reject a registration based on personal dislike of the document defining a return option or return data tag and should always err on the side of registering, even if documentation is not complete.

Addition of a new reference to an existing registration or change to the description field goes through the same registration procedure as a new registration.

## 2.2. Initial IMAP ESEARCH Return Option and Data Tag Registry

The following table is used to initialize the return option and data tag registry.

Return Option Name	Implied Return Data Tags	Description	References
ALL	ALL	Return all message numbers/UIDs that satisfy the SEARCH criteria.	[RFC4731] ( <a href="#">Section 3.1</a> ), [RFC9051] ( <a href="#">Section 6.4.4</a> )
CONTEXT		Indicate that subsequent use of the SEARCH criteria are likely.	[RFC5267] ( <a href="#">Section 4.2</a> )
COUNT	COUNT	Return number of the messages that satisfy the SEARCH criteria.	[RFC4731] ( <a href="#">Section 3.1</a> ), [RFC9051] ( <a href="#">Section 6.4.4</a> )
MAX	MAX	Return the highest message number/UID	
* Any set of return options (including the empty set) plus the MODSEQ SEARCH criteria.			

Return Option Name	Implied Return Data Tags	Description	References
		that satisfies the SEARCH criteria	[RFC4731] ( <a href="#">Section 3.1</a> ), [RFC9051] ( <a href="#">Section 6.4.4</a> )
MIN	MIN	Return the lowest message number/UID that satisfies the SEARCH criteria.	[RFC4731] ( <a href="#">Section 3.1</a> ), [RFC9051] ( <a href="#">Section 6.4.4</a> )
*	MODSEQ	The highest mod-sequence of all messages in the set that satisfy the SEARCH criteria and result options.	[RFC4731] ( <a href="#">Section 3.2</a> ), [RFC7162] ( <a href="#">Section 3.1.5</a> )
PARTIAL	PARTIAL	Return a subset of the message numbers/UIDs that satisfy the SEARCH criteria.	[RFC5267] ( <a href="#">Section 4.4</a> ), [RFC9394] ( <a href="#">Section 3.1</a> )
RELEVANCY	RELEVANCY	Return a relevancy score for each message that satisfies the SEARCH criteria.	[RFC6203] ( <a href="#">Section 4</a> )
SAVE		Set the value of the search result variable to the set of message numbers/UIDs that satisfy the SEARCH criteria.	[RFC5182] ( <a href="#">Section 2</a> ), [RFC9051] ( <a href="#">Section 6.4.4</a> )
UPDATE	ADDT0, REMOVEFROM	Request unsolicited notifications of updates to the set of messages that satisfy the SEARCH criteria.	[RFC5267] ( <a href="#">Section 4.3</a> )
* Any set of return options (including the empty set) plus the MODSEQ SEARCH criteria.			

Table 1

### 3. Security Considerations

The sole purpose of this document is to create a new IANA registry, so it doesn't create new security considerations for IMAP implementations.

The new registry should help IMAP extension writers and IMAP implementors track interactions between different IMAP extensions, so it might improve quality of specifications and implementations, including security aspects.

### 4. References

#### 4.1. Normative References

[RFC8126] Cotton, M., Leiba, B., and T. Narten, "Guidelines for Writing an IANA Considerations Section in RFCs", BCP 26, RFC 8126, DOI 10.17487/RFC8126, June 2017, <<https://www.rfc-editor.org/info/rfc8126>>.

#### 4.2. Informative References

[RFC3501] Crispin, M., "INTERNET MESSAGE ACCESS PROTOCOL - VERSION 4rev1", RFC 3501, DOI 10.17487/RFC3501, March 2003, <<https://www.rfc-editor.org/info/rfc3501>>.

[RFC4466] Melnikov, A. and C. Daboo, "Collected Extensions to IMAP4 ABNF", RFC 4466, DOI 10.17487/RFC4466, April 2006, <<https://www.rfc-editor.org/info/rfc4466>>.

[RFC4731] Melnikov, A. and D. Cridland, "IMAP4 Extension to SEARCH Command for Controlling What Kind of Information Is Returned", RFC 4731, DOI 10.17487/RFC4731, November 2006, <<https://www.rfc-editor.org/info/rfc4731>>.

[RFC5182] Melnikov, A., "IMAP Extension for Referencing the Last SEARCH Result", RFC 5182, DOI 10.17487/RFC5182, March 2008, <<https://www.rfc-editor.org/info/rfc5182>>.

[RFC5267] Cridland, D. and C. King, "Contexts for IMAP4", RFC 5267, DOI 10.17487/RFC5267, July 2008, <<https://www.rfc-editor.org/info/rfc5267>>.

[RFC6203] Sirainen, T., "IMAP4 Extension for Fuzzy Search", RFC 6203, DOI 10.17487/RFC6203, March 2011, <<https://www.rfc-editor.org/info/rfc6203>>.

[RFC7162] Melnikov, A. and D. Cridland, "IMAP Extensions: Quick Flag Changes Resynchronization (CONDSTORE) and Quick Mailbox Resynchronization (QRESYNC)", RFC 7162, DOI

10.17487/RFC7162, May 2014, <<https://www.rfc-editor.org/info/rfc7162>>.

**[RFC9051]** Melnikov, A., Ed. and B. Leiba, Ed., "Internet Message Access Protocol (IMAP) - Version 4rev2", RFC 9051, DOI 10.17487/RFC9051, August 2021, <<https://www.rfc-editor.org/info/rfc9051>>.

**[RFC9122]** Melnikov, A. and K. Murchison, "IANA Registry for Sieve Actions", RFC 9122, DOI 10.17487/RFC9122, June 2023, <<https://www.rfc-editor.org/info/rfc9122>>.

**[RFC9394]** Melnikov, A., Achuthan, A. P., Nagulakonda, V., and L. Alves, "IMAP PARTIAL Extension for Paged SEARCH and FETCH", RFC 9394, DOI 10.17487/RFC9394, June 2023, <<https://www.rfc-editor.org/info/rfc9394>>.

## **Appendix A. Acknowledgements**

Portions of the text in the document have been borrowed from [\[RFC9122\]](#).

## **Appendix B. Change History (To be removed by RFC Editor before publication)**

Changes from draft-murchison-imap-esearch-return-opt-registry-00:

\*Updated references with RFC 9122 and RFC 9394.

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