

MINUTES

<u>MEETING NAME</u>	09-WG33: WG-33 Data Archive and Management	
<u>MEETING PLACE/DIAL IN</u>	Click here to enter text.	
<u>DATE & TIME</u>	Wednesday, November 9, 2022 11:00 am – 12:00 pm US ET	
<u>PRESIDING OFFICERS</u>	Matthew Bishop, UnityPoint Health Keith Eklund, Healthcare Tech Solutions	
<u>VOTING MEMBERS PRESENT</u>	GE Healthcare Healthcare Tech Solutions Laitek, Inc. Society for Imaging Informatics In Medicine	Numan, Jouke Eklund, Keith Solomon, Harry Bishop, Matthew
<u>OTHERS</u>	Laitek, Inc. London Health Science Center	Behlen, Fred Aizawa, Luiz
<u>VOTING MEMBERS ABSENT</u>	AAPM ACR Ambra Health/Intelerad Argentix Informatics, Inc. Canon Medical Research USA Change Healthcare DesAcc EMEA European Society of Radiology Grafimedia Mayo Clinic Rochester PixelMed Publishing Varian, a Siemens Healthineers	Bevins, Nicholas Maldonado, Josh Ostrow, Daniel Silver, Elliot O'Donnell, Kevin Ho, Kinson Lyshkow, Hugh Mildenberger, Peter Georgiadis, Pantelis Persons, Kenneth Clunie, David Anghelescu, Alex

Company

DICOM Anna Zawacki, SIIM
SECRETARIAT

1 CALL TO ORDER AND REVIEW OF ANTI-TRUST RULES AND DICOM PATENT POLICY (Co-Chairs, Secretariat)

The meeting was called to order. Guidelines for Conducting NEMA Meetings were read and attendance was recorded.

2 REVIEW AND APPROVE AGENDA (Co-Chairs)

The agenda was reviewed and approved.

3 REVIEW MINUTES (Co-Chairs)

The minutes of the previous meeting were reviewed and approved.

4 TOPIC ITEMS TO BE DISCUSSED (All)

- Sup223 – new possible work item: DICOMweb support – extended negotiation – Jouke to present a draft – **main item discussion for the entire call, see notes below**
- Continued promo of Sup223 – Did not discuss.
 - Submit session proposal for HIMSS23, SIIM23Call for Session Proposals for SIIM23 is open, deadline Dec 12, Submit here: https://siim.org/page/23m_cfa_session
 - Make it part of the HIMSS-SIIM Community Meetup at both HIMSS23 and SIIM23
 - SIIMcast
- What should this WG take on next? Ideas from last meeting – Did not discuss.
 - Management of sensitive images – advisory to WG-06

- How do you move the data in and out of the cloud, how do you split datasets, etc.?
- DICOMweb tree structured metadata – current work item proposal by WG-27 – potential overlap/synergy with our WG

Sup223 – new possible work item: DICOMweb support – extended negotiation – Jouke Nouman presented a draft which was discussed in length.

During WG-06 Meeting on 11/14 this CP received a number 2270 (added below and to the draft)

Correction Number	CP-2270
Log Summary: Support of Repository Query in DICOMWeb	
Name of Standard PS 3 2022d, PS 3.2 Section K.4.2.2 PS 3.18 Section 8.3.4, 10.6.1.2, 10.6.3.3, 10.6.5	
Rationale for Correction:	
In DICOM release 2022c, support for Repository Query was added for DIMSE DICOM in PS 3.4 (Section C.6.4). Small correction on duplicate assignment of tag number was done in 2022d release.	
Much of Repository Query can be supported on DICOMWeb Search Transaction out of the box by an origin server, only minor changes are required:	
Feature in PS 3.4 C.6.4	Feature in PS 3.18
Warning status	8.3.4.4.1 "Paging behavior": If (remaining > 0) return Warning header. (0008,0429) "Maximum Number of Records" should be taken into account as well to compute the number of results returned.
New Attributes defined in C.6.4	Origin server can interpret them exact same as in C.6.4. For consistency (0008,0429) "Maximum Number of Records" should also be used to calculate number of results returned. For 'offset' value zero, this would result in exact same behavior in limiting responses as it does in C.6.4. Only difference with PS 3.4 is that support of the attributes designated as mandatory is optional in DICOMWeb.
Empty Value Matching (C.2.2.2.7)	Not supported
Multiple Value Matching (C.2.2.2.8)	Not supported.
Proposal is to add new Query Parameters to section 8.3.4 "Search Query Parameters" to request this extended behavior in same fashion as "Fuzzy Matching of Person Names", see section 8.3.4 and 8.3.4.2 and to specify that result ordering needs to be applied if either (0008,014B) "Record Key" or (0008,014C) "Prior Record Key" is present in the query	

Here is the draft of the document – CP2270 – ftp://d9-workgrps@medical.nema.org/MEDICAL/Private/Dicom/WORKGRPS/WG33/2022/2022-11-09/CP2270_JN_Support_Repository_Query_in_DICOMWeb.doc

In bold are the items that have been added.

There were also a few issues identified that should be fixed which are pasted below with the original comments.

8.3.4.3 Attributes Included in the Response

A parameter specifies the Attributes that should be included in the response. The value is either a comma-separated list of attributes, or the single keyword "all", which means that all available attributes of the object should be included in the response.

```
includefield = *("includefield" "=" (1#attribute / "all") )
```

The request may contain one or more include parameters; however, if a parameter with the value of "all" is present, then other includefield parameters shall not be present. If an attribute is a value of an includefield parameter, it is equivalent to C-FIND Universal matching for that attribute. See Section C.2.2.2.3 in PS3.4.

If an include parameter represents a Private Data Element a corresponding Private Creator Element shall be specified as an additional match parameter (see Section 7.8.1 in PS3.5).

The includefield Query Parameter corresponds to DIMSE Return Keys. See [Section K.2.2.1.2 in PS3.4](#)

The includefield Query Parameter may also contain DIMSE Return Keys from Repository Query SOP Class. See Section C.6.4.1 in PS3.4.

Commented [NJ(H1): This is referencing section in appendix for "Basic Worklist Management Service" which doesn't use Patient/Study Root Information Model. Looks like an error?

8.3.4.4.1 Paging Behavior

The search requests shall be idempotent, that is, two separate search requests with the same Target Resource, Query Parameters, and header fields shall return the same ordered list of matches, if the set of matches on the origin server has not changed.

Given the following definitions:

<code>offset</code>	the value of the "offset" query parameter.
<code>limit</code>	the value of the "limit" query parameter.
<code>maxNumberOfRecords</code>	<u>the value of the (0008,0429) "Maximum Number of Records" attribute in the request</u>
<code>maxResults</code>	the maximum number of results the origin server allows in a single response.
<code>matches</code>	the number of matches resulting from the search. <u>If (0008,041C) "Prior Record Key" is provided in the query, then the value will be the number of matches after the record identified by the attribute value.</u>

`results` the number of results returned in the response. It is equal to the minimum of:

- The maximum of zero and the value of matches - offset
- The value of `maxResults`
- **The value of `maxNumberOfRecords`**
- The value of limit

`remaining` the number of matches that were not yet returned.

8.3.4.X Empty Value Matching

A single parameter specifies whether Empty Value Matching is to be performed.

This parameter is optional for the user agent.

This parameter is optional for the origin server.

If this parameter is not present its value is "false".

```
emptyvaluematching = "emptyvaluematching" "=" ("true" / "false")
```

If the value is "false", then the search shall be performed without Empty Value Matching.

If the value is "true" and the origin server supports Empty Value Matching, then the search shall be performed with Empty Value Matching Attributes as specified in Section C.2.2.2.7 in PS3.4 and shall be documented in the Conformance Statement and, if the service supports it, the Retrieve Capabilities response.

If the value is "true" and the origin server does not support Empty Value Matching, then:

- The search shall be performed without Empty Value Matching.
- The response shall include the following HTTP Warning header (see [RFC7234] Section 5.5) :

```
Warning: 299 <service>: The emptyvaluematching parameter is not supported. Empty Value Matching has not been performed.
```
- where `<service>` is the base URI for the origin server. This may be a combination of scheme, authority, and path.
- The response may include a payload containing an appropriate Status Report.

8.3.4.Y Multiple Value Matching

A single parameter specifies whether Multiple Value Matching is to be performed.

This parameter is optional for the user agent.

This parameter is optional for the origin server.

If this parameter is not present its value is "false".

```
multiplevaluematching = "multiplevaluematching" "=" ("true" / "false")
```

If the value is "false", then the search shall be performed without Multiple Value Matching.

If the value is "true" and the origin server supports Multiple Value Matching, then the search shall be performed with Multiple Value Matching Attributes as specified in Section C.2.2.2.8 in PS3.4 and shall be documented in the Conformance Statement and, if the service supports it, the Retrieve Capabilities response.

If the value is "true" and the origin server does not support Multiple Value Matching, then:

- The search shall be performed without Multiple Value Matching.
- The response shall include the following HTTP Warning header (see [RFC7234] Section 5.5) :

```
Warning: 299 <service>: The multiplevaluematching parameter is not supported. Only Matching Multiple Values (PS 3.4 C.2.2.3) has been performed.
```

where <service> is the base URI for the origin server. This may be a combination of scheme, authority, and path.

- The response may include a payload containing an appropriate Status Report.

Adjourn :12:00PM

5 OLD BUSINESS

6 DATE AND TIME OF NEXT MEETINGS (Secretariat)

- T-con meetings now monthly and for 60 minutes
- Next call is Dec 7, 2022 between 11:00 am and 12:00 pm ET

<u>NEMALINK CODE</u>	09-WG33
<u>SUBMITTED BY</u>	Hull, Carolyn
<u>SUBMITTED ON</u>	11/17
<u>LEGAL APPROVAL</u>	11-20-22
<u>UPLOAD LOCATION</u>	Enter upload location.