

DICOM Correction Proposal

STATUS	Assigned
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Correction Number	CP-1726
Log Summary:	Add clarification note that C-FIND SCP should ignore unknown standard and private tags
Name of Standard	PS3.4
Rationale for Correction:	<p>The notes on first bullet in section C.4.1.1.3.2 describe behavior for the attributes defined in the Query/Retrieve Models. They don't describe what to do for the attributes that are not covered in the model. Expected behavior for unrecognized Private Attributes is defined in PS3.2 Section 3.11.3, where it is says that these may be ignored, being a Standard Extended SOP Class.</p> <p>This CP proposes to add a clarification note on first bullet that refers to above section.</p>
Correction Wording:	

For reference, PS3.4:

C.2.2.1.2 Required Keys

At each level in the Entity-Relationship Model, a set of Attributes shall be defined as Required Keys. Required Keys imply the SCP of a C-FIND shall support matching based on a value contained in a Required Key of the C-FIND request. Multiple entities may have the same value for Required Keys. That is, a distinct value in a Required Key shall not necessarily identify a single entity at the level of the key.

C-FIND SCPs shall support existence and matching of all Required Keys defined by a Query/Retrieve Information Model. If a C-FIND SCP manages an entity with a Required Key of zero length, the value is considered unknown and all matching against the zero length Required Key shall be considered a successful match.

Required Keys may be contained in the Identifier of a C-FIND request. Required Keys shall not be contained in the Identifier of C-MOVE and C-GET requests.

C.2.2.1.3 Optional Keys

At each level in the Entity-Relationship Model, a set of Attributes shall be defined as Optional Keys.

Optional Keys contained in the Identifier of a C-FIND request may have three different types of behavior depending on support for existence and/or matching by the C-FIND SCP. If the C-FIND SCP:

- does not support the existence of the Optional Key, then the Attribute shall not be returned in C-FIND responses
- supports the existence of the Optional Key but does not support matching on the Optional Key, then the Optional Key shall be processed in the same manner as a zero length Required Key. That is, the value specified to be matched for the Optional Key is ignored but a value may be returned by the SCP for this Optional Key.
- supports the existence and matching of the Optional Key, then the Optional Key shall be processed in the same manner as a Required Key.

Note

1. C-FIND SCU may not assume an Optional Key with non-zero length will be processed in the same manner as a Required Key. The Conformance Statement of the C-FIND SCP shall list the Optional Keys that are supported.
2. Optional Keys are differentiated from Required Keys in that Optional Keys may or may not be supported for existence and/or matching by C-FIND SCPs. Whereas, Required Keys must always be supported by C-FIND SCPs.

Optional Keys may be contained in the Identifier of a C-FIND request. Optional Keys shall not be contained in the Identifier of C-MOVE and C-GET requests.

Add new note to PS 3.4 Section C.4.1.1.3.2, first bullet

C.4.1.1.3.2 Response Identifier Structure

The C-FIND response shall not contain Attributes that were not in the request or specified in this section.

An Identifier in a C-FIND response shall contain:

- Key Attributes with values corresponding to Key Attributes contained in the Identifier of the request.

Note

1. All Required Keys in the Request Identifier, as well as all Optional Keys in the Request Identifier that are supported by the SCP, will therefore be present in the Response Identifier.
 2. Required Keys and supported Optional Keys in the Response Identifier will have zero length if the SCP has no value to send; i.e., there is no requirement that the SCP have a value for these, or create a dummy value.
 3. The requirement that unsupported Optional Keys present in the Request Identifier not be included in the Response Identifier is specified in Section C.2.2.1.3.
 4. **Private Attributes present in the Request Identifier may be ignored by the SCP if unrecognized (as defined for a Standard Extended SOP Class described in PS3.2, Section 3.11.3), hence may or may not be present in the Response Identifier.**
- Query/Retrieve Level (0008,0052), which defines the level of the query. The Query/Retrieve level shall be equal to the level specified in the request.
 - Conditionally, the Attribute Specific Character Set (0008,0005). This Attribute shall be included if expanded or replacement character sets may be used in any of the Attributes in the Response Identifier. It shall not be included otherwise. The C-FIND SCP is not required to return responses in the Specific Character Set requested by the SCU if that character set is not supported by the SCP. The SCP may return responses with a different Specific Character Set.
 - Conditionally, the Attribute Timezone Offset From UTC (0008,0201). This Attribute shall be included if any Attributes of time in the Response Identifier are to be interpreted explicitly in the designated local time zone. It shall not be present otherwise, i.e., it shall not be sent with a zero-length value.

For reference, PS3.2 Section 3.11.3:

3.11.3 Standard Extended SOP Class

A SOP Class defined in the DICOM Standard extended in an implementation with additional Type 3 Attributes. The additional Attributes may either be drawn from the Data Dictionary in PS3.6, or may be Private Attributes. The semantics of the related Standard SOP Class shall not be modified by the additional Type 3 Attributes when absent. Therefore, the Standard Extended SOP Class utilizes the same UID as the related Standard SOP Class.

Note

IODs from a Standard Extended SOP Class may be freely exchanged between DICOM implementations since implementations unfamiliar with the additional Type 3 Attributes would simply ignore them.