

DICOM Correction Proposal

STATUS	Letter Ballot
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Correction Number	CP-2418
Log Summary: Remove Partial Content status code	
Name of Standard PS3.18	
<p>Rationale for Correction:</p> <p>According to RFC7233 HTTP response status code 206 (Partial Response) is a transport level code and should not be used as an application-level response. We can't use it for the purpose that it is currently used for in the tables 10.4.3-1 and 11.9.3-1, namely for conveying ranges of 'target resources' or 'search results' respectively. These are application-level entities, while the ranges defined in RFC7233 can currently only include bytes. [Would DICOM like to be able to use ranges this way, it would require DICOM to request the IANA to register a new HTTP Range Unit in the HTTP Range Unit Registry. I'm quite sure we do not want to go that way, and I guess IANA would have some doubts honoring the (would be) request.]</p> <p>PS3.18 Table 11.9.3-1 uses status code 206 for an application-level Worklist Search Transaction Response ("Only some of the search results were returned, and the rest can be requested through the appropriate request").</p> <p>PS3.18 Table 10.4.3-1 uses status code 206 for an application-level Studies Retrieve Transaction Response ("The response payload contains representation for some, but not all, of the Target Resource(s)").</p> <p>By removing this entry from Table 11.9.3-1, the origin server has no means to communicate that it only supplied a partial result to the Search Transaction Request, whether the user agent searched with or without offset and limit. It can only either return the entire matching set within the possibly specified range or respond with a 413 status code (Payload Too Large). This change may be interpreted as a breaking change, even though the existing approach does not conform to RFC7233.</p> <p>Similarly, in Table 10.4.3-1, the origin server has no means to communicate that it only supplied a partial result to the Retrieve Transaction Request. Here again, it can only either return the entire set or respond with a 413 status code (Payload Too Large). This change may also be interpreted as a breaking change, even though the existing approach does not conform to RFC7233.</p> <p>Note that the HTTP status code 206 can of course still be received, and needs to be handled appropriately, namely at the HTTP transport level.</p>	
Correction Wording:	

Change Table 11.9.3-1 as given below.

Status	Code	Meaning
Success	200 (OK)	The search completed successfully, and the matching results are returned in the message body.
	204 (No Content)	The search completed successfully, but there were no matching results.
	206 (Partial Content)	Only some of the search results were returned, and the rest can be requested through the appropriate request.
Failure	400 (Bad Request)	The was a problem with the request. For example, invalid Query Parameter syntax.
	413 (Payload Too Large)	The size of the results exceeds the maximum payload size supported by the origin server. The user agent may repeat the request with paging or with a narrower query to reduce the size of the result.

Change Table 10.4.3-1 as given below.

Status	Code	Meaning
Success	200 (OK)	The response payload contains representations for all of the Target Resource(s)
	206 (Partial Content)	The response payload contains representations for some, but not all, of the Target Resource(s)
Failure	400 (Bad Request)	The origin server cannot process the request because of errors in the request headers or parameters.
	404 (Not Found)	The Target Resource does not exist
	406 (Not Acceptable)	The origin server does not support any of the Acceptable Media Types
	410 (Gone)	The Target Resource has been deleted
	413 (Payload Too Large)	The Target Resource is too large to be returned by the origin server.

Change **Table 8.5-1** as given below.

Status	Code	Meaning
Success	The 2xx (Successful) class of status code indicates that the client's request was successfully received, understood, and accepted.	
	200 (Success)	All Target Resource representations are contained in the payload. See [RFC7231] Section 6.3.1.
	...	
	205 (Reset Content)	The server has fulfilled the request and desires that the user agent reset the "document view", which caused the request to be sent, to its original state as received from the origin server.
	206 (Partial Content)	The 206 (Partial Content) status code indicates that the server is successfully fulfilling a range request for the Target Resource by transferring one or more parts of the selected representation that correspond to the satisfiable ranges found in the request's Range header field. This status code shall only be used with Range Requests. See [RFC7233].

Status	Code	Meaning
		<p data-bbox="737 205 797 233">Note</p> <p data-bbox="737 254 1507 310">This status code was previously (erroneously) used to indicate that only some of a payload was stored.</p>
	<p data-bbox="349 359 375 380">....</p>	

Note **Status code 206 was previously (erroneously) used to indicate that only some of a payload was stored and was previously (erroneously) used for range requests at application level.**