

# Draft of Change Proposal to merge Media and Document Reference

- Dissolve Media into DocumentReference and Attachment Data Type
- Add Attachment as valueAttachment to Observation

See: [OO January 2019 Workgroup Meeting Minutes#Q4-OO/II](#)

## Reasoning

- Significant overlap between use cases for Media and Document Reference
  - "Media" objects can be stored as Document Reference and vice versa
- Implementors likely to pick one or the other for indexing of non-FHIR resources
- Adding key Media fields to Document Reference should satisfy all Media requirements
  - Mandatory fields are the same in both resources
- Document Reference could be renamed to help clarify purpose of the combined resource













## Affected resources



- <http://build.fhir.org/media.html>
- <http://build.fhir.org/documentreference.html>
- <http://build.fhir.org/observation.html>
- <http://build.fhir.org/datatypes.html#Attachment>

## Media

- Remove resource
- Remove Reference(Media) in AdverseEvent.subjectMedicalHistory. (Already contains Reference(DocumentReference | Observation)).
- Remove Reference(Media) in ClinicalImpression.investigation.item; potentially replace with Reference(DocumentReference) although that isn't entirely clear.
- Remove Reference(Media) in ClinicalImpression.finding.itemReference. (Already contains Reference(DocumentReference | Observation)).
- Remove Reference(Media) in DeviceUseStatement.reasonReference. (Already contains Reference(DocumentReference | Observation)).
- Replace Reference(Media) in DiagnosticReport.media.link with Reference(Observation | DocumentReference).
- Remove Reference(Media) in MedicationKnowledge.monograph.source. (Already contains Reference(DocumentReference)).

## Attachment

Name	Flags	Card.	Type	Description & Constraints 
 Attachment	IN		Element	Content in a format defined elsewhere + Rule: If the Attachment has data, it SHALL have a contentType Elements defined in Ancestors: <a href="#">id</a> , <a href="#">extension</a>
 contentType		0..1	code	Mime type of the content, with charset etc. <a href="#">MimeType</a> (Required)
 language		0..1	code	Human language of the content (BCP-47) <a href="#">Common Languages</a> (Preferred but limited to <a href="#">AllLanguages</a> )
 data		0..1	base64Binary	Data inline, base64ed
 url		0..1	url	Uri where the data can be found
 size		0..1	unsignedInt	Number of bytes of content (if url provided)
 hash		0..1	base64Binary	Hash of the data (sha-1, base64ed)
 title		0..1	string	Label to display in place of the data
 creation		0..1	dateTime	Date attachment was first created
 height		<b>0..1</b>	<a href="#">positiveInt</a>	<b>Height of the image in pixels (photo/video)</b>
 width		<b>0..1</b>	<a href="#">positiveInt</a>	<b>Width of the image in pixels (photo/video)</b>















 frames		0..1	<a href="#">positiveInt</a>	<b>Number of frames if &gt; 1 (photo)</b>
 duration		0..1	<a href="#">decimal</a>	<b>Length in seconds (audio / video)</b>



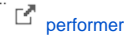














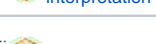





- Should these new elements be moved into (one or more) core extensions?

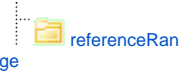








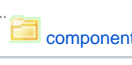













## DocumentReference

- Attachments now include additional media data fields
- Media.type is unnecessary due to DocumentReference.content.attachment.contentType and use of mime type (irrespective of subtype) searches
- Media.view can be encoded in DocumentReference.context.event, or alternatively a new view element added to DocumentReference.
- Media.bodySite can be encoded in DocumentReference.context.event, or alternatively a new bodySite element added to DocumentReference.
- Media.modality can be encoded in DocumentReference.context.event, or alternatively a new modality element added to DocumentReference.
- DocumentReference.subject missing several subject types present in Observation ([GF#20352](#))
- DocumentReference.author missing several author types present in Observation ([GF#20353](#))
- Media.deviceName and Media.device can be encoded in DocumentReference.author as Reference(Device)
- Potentially rename resource to Multimedia, IndexedMedia, ExternalMedia, File, RelatedDocument, BinaryMetadata, Content, IndexedContent, ...

## Observation

Name	Flags	Card.	Type	Description & Constraints ?
 Observation	IN		DomainResource	Measurements and simple assertions + Rule: dataAbsentReason SHALL only be present if Observation.value[x] is not present + Rule: If Observation.code is the same as an Observation.component.code then the value element associated with the code SHALL NOT be present Elements defined in Ancestors: <a href="#">id</a> , <a href="#">meta</a> , <a href="#">implicitRules</a> , <a href="#">language</a> , <a href="#">text</a> , <a href="#">contained</a> , <a href="#">extension</a> , <a href="#">modifierExtension</a>
 identifier		0..*	Identifier	Business Identifier for observation
 basedOn		0..*	<a href="#">Reference(CarePlan   DeviceRequest   ImmunizationRecommendation   MedicationRequest   NutritionOrder   ServiceRequest)</a>	Fulfills plan, proposal or order
 partOf		0..*	<a href="#">Reference(MedicationAdministration   MedicationDispense   MedicationStatement   Procedure   Immunization   ImagingStudy)</a>	Part of referenced event
 status	?!	1..1	code	registered   preliminary   final   amended + <a href="#">ObservationStatus (Required)</a>
 category		0..*	CodeableConcept	Classification of type of observation <a href="#">Observation Category Codes (Preferred)</a>
 code		1..1	CodeableConcept	Type of observation (code / type) <a href="#">LOINC Codes (Example)</a>
 subject		0..1	<a href="#">Reference(Patient   Group   Device   Location)</a>	Who and/or what the observation is about
 focus	TU	0..*	<a href="#">Reference(Any)</a>	What the observation is about, when it is not about the subject of record
 encounter		0..1	<a href="#">Reference(Encounter)</a>	Healthcare event during which this observation is made
 effective[x]		0..1		Clinically relevant time/time-period for observation
 effectiveD ateTime			dateTime	
 effectiveP eriod			Period	
 effectiveT iming			Timing	

 effective instant			instant	
 issued		0..1	instant	Date/Time this version was made available
 performer		0..*	Reference(Practitioner   PractitionerRole   Organization   CareTeam   Patient   RelatedPerson)	Who is responsible for the observation
 value[x]		0..1		Actual result
 valueQuantity			Quantity	
 valueCodeableConcept			CodeableConcept	
 valueString			string	
 valueBoolean			boolean	
 valueInteger			integer	
 valueRange			Range	
 valueRatio			Ratio	
 valueSampledData			SampledData	
 valueTime			time	
 valueDateTime			dateTime	
 valueAttachment			<b>Attachment</b>	
 valuePeriod			Period	
 dataAbsentReason		0..1	CodeableConcept	Why the result is missing <a href="#">DataAbsentReason (Extensible)</a>
 interpretation		0..*	CodeableConcept	High, low, normal, etc. <a href="#">Observation Interpretation Codes (Extensible)</a>
 note		0..*	Annotation	Comments about the observation
 bodySite		0..1	CodeableConcept	Observed body part <a href="#">SNOMED CT Body Structures (Example)</a>
 method		0..1	CodeableConcept	How it was done <a href="#">Observation Methods (Example)</a>
 specimen		0..1	Reference(Specimen)	Specimen used for this observation
 device		0..1	Reference(Device   DeviceMetric)	(Measurement) Device

 referenceRange		0..*	BackboneElement	Provides guide for interpretation + Rule: Must have at least a low or a high or text
 low		0..1	SimpleQuantity	Low Range, if relevant
 high		0..1	SimpleQuantity	High Range, if relevant
 type		0..1	CodeableConcept	Reference range qualifier <a href="#">Observation Reference Range Meaning Codes (Preferred)</a>
 appliesTo		0..*	CodeableConcept	Reference range population <a href="#">Observation Reference Range Applies To Codes (Example)</a>
 age		0..1	Range	Applicable age range, if relevant
 text		0..1	string	Text based reference range in an observation
 hasMember		0..*	Reference(Observation   QuestionnaireResponse   MolecularSequence)	Related resource that belongs to the Observation group
 derivedFrom		0..*	Reference(DocumentReference   ImagingStudy   Media   QuestionnaireResponse   Observation   MolecularSequence)	Related measurements the observation is made from
 component		0..*	BackboneElement	Component results
 code		1..1	CodeableConcept	Type of component observation (code / type) <a href="#">LOINC Codes (Example)</a>
 value[x]		0..1		Actual component result
Quantity  value			Quantity	
CodeableConcept  value			CodeableConcept	
String  value			string	
Boolean  value			boolean	
Integer  value			integer	
Range  value			Range	
Ratio  value			Ratio	
SampledData  value			SampledData	
Time  value			time	
DateTime  value			dateTime	
<b>Attachment</b>  value			<a href="#">Attachment</a>	

 value Period			Period	
 dataAbsentReason dataAbsentReason		0..1	CodeableConcept	Why the component result is missing <a href="#">DataAbsentReason (Extensible)</a>
 interpretation interpretation		0..*	CodeableConcept	High, low, normal, etc. <a href="#">Observation Interpretation Codes (Extensible)</a>
 referenceRange referenceRange		0..*	see <a href="#">referenceRange</a>	Provides guide for interpretation of component result

- Where a photo has been uploaded as an attachment to DocRef, the suggestion is to have valueAttachment as the value of DocRef.content.attachment. valueAttachment.url should not be a pointer to the DocRef. The full DocRef should be referenced from the derivedFrom element.