Premis_v3	**1.01**	Name	**objectIdentifier**	Implemented	IRFB
Object Category	IRFB	Value type		Fimpl	
Obligation	M	Data Constraint	Container	Bimpl	
Repeatable	R	Attribute of		SIP	

Definition

A designation used to identify the Object uniquely within the preservation repository system in which it is stored.

Notes

Each Object held in the preservation repository must have a unique identifier to allow other entities to refer to it and to relate it to descriptive, technical, and other metadata unambiguously.

Creation/Maintenance: An identifier may be created by the repository system at the time of ingest, or it may be created or assigned outside of the repository and submitted with an object as metadata. Similarly, identifiers can be generated automatically or manually.

The objectIdentifier is mandatory for all Objects stored.
The objectIdentifier is repeatable in order to allow both repository-assigned and externally-assigned identifiers to be recorded. See “Creation/Maintenance” note above.

Primary identifiers must be unique within the repository. They may be preexisting, and in use in other digital object management systems. Ideally, secondary identifiers should also be unique but sometimes this is not possible (e.g., if the values are inherited from a legacy system which did not enforce this or only identified items at a higher level). Identifiers for each item must be sufficient to identify the item uniquely at the appropriate level of aggregation. For example, an Intellectual Entity that represents all books in the same edition could use an ISBN but this would be insufficient to identify a particular copy of that book.
A preservation repository needs to know both the type of object identifier and the value. If the value itself contains the identifier type (e.g., “oai:lib.uchicago.edu:1”), the identifier type does not need to be recorded explicitly. Similarly, if the repository uses only one type of identifier, the type can be assumed and does not need to be recorded. A persistent identifier should be used, but the particular identifier scheme is an implementation-specific decision.

Values allowed

UsageNotes

Premis_v3	**1.01.1**	Name	**objectIdentifierType**	Implemented	IRFB
Object Category	IRFB	Value type	Text	Fimpl	implicit
Obligation	M	Data Constraint	CV	Bimpl	implicit
Repeatable	NR	Attribute of		SIP	
Definition	A designation of the domain within which the object identifier is unique.				
Notes	Identifier values cannot be assumed to be unique across domains; the combination of objectIdentifierType and objectIdentifierValue should ensure uniqueness. The type of the identifier may be implicit within the repository as long as it can be explicitly communicated when the digital object is disseminated outside of it.				
Values allowed	bitstream: nvt file: DAAN_fileID, DIVA_objectID representation: .. Intellectual item:				
UsageNotes	DAAN and in DIVA use the same filename; this name consists of a string, creatorcode, number and extension (Guid). The TIFF is not stored via DIVA yet. TIFFs have a unique key (carriernumber). The derived files have a different extension.				

Premis_v3	**1.01.2**	Name	**objectIdentifierValue**	Implemented	IRFB
Object Category	IRFB	Value type	Text	Fimpl	metadata
Obligation	M	Data Constraint	None	Bimpl	header
Repeatable	NR	Attribute of		SIP	
Definition	The value of the objectIdentifier.				
Notes					
Values allowed					
UsageNotes					

Premis_v3	**1.02**	Name	**objectCategory**	Implemented	IRFB
Object Category	IRFB	Value type	Text	Fimpl	implicit
Obligation	M	Data Constraint	CV	Bimpl	implicit
Repeatable	NR	Attribute of		SIP	
Definition	The category of object to which the metadata applies.				
Notes	Preservation repositories are likely to treat different categories of objects (representations, files, and bitstreams) differently in terms of metadata and data management functions, it is therefore important to differentiate between the categories. A filestream should be considered a file.				
Values allowed	Intellectual item Representation File Bitstream				
UsageNotes					

Premis_v3	**1.03**	Name	**preservationLevel**	Implemented	IRF
Object Category	IRF	Value type		Fimpl	
Obligation	O	Data Constraint	Container	Bimpl	
Repeatable	R	Attribute of		SIP	

Definition	Information indicating the decision or policy on the set of preservation functions to be applied to an object and the context in which the decision or policy was made.
Notes	Some preservation repositories will offer multiple preservation options depending on factors such as the value or uniqueness of the material, the “preservability” of the format, the amount the customer is willing to pay, etc. In such circumstances the preservationLevelValue that applies may need to be directly associated with an Object. Creation/Maintenance: The preservation level may be assigned by the repository or requested by the depositor and submitted as metadata. The repository may also choose to record additional metadata indicating the context for the assignment of the preservation level.
Values allowed	
UsageNotes	

Premis_v3	**1.03.1**	Name	**preservationLevelType**	Implemented	IRF
Object Category	IRF	Value type	Text	Fimpl	metadata
Obligation	O	Data Constraint	CV	Bimpl	
Repeatable	NR	Attribute of		SIP	

Definition	A value indicating the type of preservation functions expected to be applied to the Object for this preservation level.
Notes	Examples: PreservationLevelType “Logical Preservation” (Migration, Emulation) PreservationLevelType “Bit Preservation” (Low (e.g. backup), Medium (e.g. min. 2 copies and integrity check), High (e.g. min 5 copies, integrity check and high independence))
Values allowed	Preserveringsniveau Storageplan
UsageNotes	

Premis_v3	**1.03.2**	Name	**preservationLevelValue**	Implemented	IRF
Object Category	IRF	Value type	Text	Fimpl	metadata
Obligation	M	Data Constraint	CV	Bimpl	
Repeatable	NR	Attribute of		SIP	

Definition	A value indicating the set of preservation functions expected to be applied to the object.
Notes	If preservationLevelType and/or preservationLevelRole are used, then the available controlled vocabulary should be dependent on the values set for each of these types. Creation: The preservationLevelType may be assigned by the repository or requested by the depositor and submitted as metadata. > NISV assignes the type during ingest, based on the format and the ingestworkflow itself. Additionally a classification of tapegroups defines the storageplan.
Values allowed	Preserveringsniveau . Representatie: migratie/emulatie . File: 1A-C, 2A-C Storageplan . File: ...?
UsageNotes	

Premis_v3	**1.03.5**	Name	**preservationLevelDateAssigned**	Implemented	IRF
Object Category	IRF	Value type	Date	Fimpl	metadata
Obligation	O	Data Constraint	Structured form.	Bimpl	
Repeatable	NR	Attribute of		SIP	

Definition	The date, or date and time, when a particular preservationLevelValue was assigned to the object.
Notes	The preservationLevel applicable to an object is expected to be reviewed and changed over time, in response to changes in repository preservation requirements, policies, or capabilities relevant to the object. The date that the current preservationLevelValue was assigned aids review of decisions.
Values allowed	
UsageNotes	

Premis_v3	**1.04**	Name	**significantProperties**	Implemented	IRFB
Object Category	IRFB	Value type		Fimpl	
Obligation	O	Data Constraint	Container	Bimpl	
Repeatable	R	Attribute of		SIP	

Definition	Characteristics of a particular object subjectively determined to be important to maintain through preservation actions.
Notes	Objects that have the same technical properties may still differ as to the properties that should be preserved for future presentation or use. Significant properties may pertain to all objects of a certain class; for example, the repository can decide that for all PDF files, only the content need be preserved. In other cases, for example, for media art, the significant properties may be unique to each individual object. Where values are unique, they must be supplied by the submitter or provided by the curatorial staff of the repository. The choice of whether a property is significant is subjective. Some of these properties can be directly measured while others can only be determined subjectively. For example, future migrations of a TIFF image may require optimization for line clarity or for color; the option chosen would depend upon a curatorial judgment of the significant properties of the image.
Values allowed	
UsageNotes	Listing significant properties implies that the repository plans to preserve these properties across time and requires them to survive preservation action acceptably; for example, to be maintained during emulation or after format migration. It also implies that the repository would note when preservation action results in modification of significant properties. In practice, significant properties might be used as measures of preservation success, as part of quality checking the results of a preservation action or evaluating the efficacy of a preservation method. > NISV only lists a few main properties that are applicable for most formats.

Premis_v3	**1.04.3**	Name	**significantPropertiesExtension**	Implemented	IRFB
Object Category	IRFB	Value type		Fimpl	
Obligation	O	Data Constraint	Container	Bimpl	
Repeatable	R	Attribute of		SIP	

Definition	A container to include semantic units defined outside of PREMIS for significant properties.
Notes	
Values allowed	
UsageNotes	NISV implemented 1 extension on significantPropertiesExtension.

Premis_v3	**1.04.3.01**	Name	**mediaType**	Implemented	IR
Object Category	IRFB	Value type	Text	Fimpl	
Obligation	O	Data Constraint	CV	Bimpl	
Repeatable	NR	Attribute of		SIP	

Definition: Identifies the general, high level nature of the content of an instantiation. It uses categories that show how content is presented to an observer, e.g., as a sound, text or moving image.

Notes: vgl the set of classes specified by the DCMI Type Vocabulary, used to categorize the nature or genre of the resource. [see: http://dublincore.org/documents/dcmi-type-vocabulary/]

Image: A visual representation other than text.
Examples include images and photographs of physical objects, paintings, prints, drawings, other images and graphics, animations and moving pictures, film, diagrams, maps, musical notation. Note that Image may include both electronic and physical representations.

> MovingImage: A series of visual representations imparting an impression of motion when shown in succession.
Examples include animations, movies, television programs, videos, zoetropes, or visual output from a simulation. Instances of the type Moving Image must also be describable as instances of the broader type Image.

> StillImage: A static visual representation.
Examples include paintings, drawings, graphic designs, plans and maps. Recommended best practice is to assign the type Text to images of textual materials. Instances of the type Still Image must also be describable as instances of the broader type Image.

Sound: A resource primarily intended to be heard.
Examples include a music playback file format, an audio compact disc, and recorded speech or sounds.

Text: A resource consisting primarily of words for reading.
Examples include books, letters, dissertations, poems, newspapers, articles, archives of mailing lists. Note that facsimiles or images of texts are still of the genre Text.

Dataset: Data encoded in a defined structure.
Examples include lists, tables, and databases. A dataset may be useful for direct machine processing.

InteractiveResource: A resource requiring interaction from the user to be understood, executed, or experienced.
Examples include forms on Web pages, applets, multimedia learning objects, chat services, or virtual reality environments.

PhysicalObject: An inanimate, three-dimensional object or substance. Note that digital representations of, or surrogates for, these objects should use Image, Text or one of the other types.

Service: A system that provides one or more functions.
Examples include a photocopying service, a banking service, an authentication service, interlibrary loans, a Z39.50 or Web server.

Software: A computer program in source or compiled form.
Examples include a C source file, MS-Windows .exe executable, or Perl script.

Collection: A collection is described as a group; its parts may also be separately described.
Dataset: Examples include lists, tables, and databases. A dataset may be useful for direct machine processing.

	Event: A non-persistent, time-based occurrence. Metadata for an event provides descriptive information that is the basis for discovery of the purpose, location, duration, and responsible agents associated with an event. Examples include an exhibition, webcast, conference, workshop, open day, performance, battle, trial, wedding, tea party, conflagration.
Values allowed	DAAN_Program/MaterialType photo (=StillImage) video (=MovingImage) audio (=Sound) object (=PhysicalObject) paper (=Text) other
UsageNotes	Used for Intellectual Item en Representation.

Premis_v3	**1.04.3.02**	Name	**use**	Implemented	F
Object Category	F	Value type	Text	Fimpl	metadata
Obligation	O	Data Constraint	CV	Bimpl	
Repeatable	R	Attribute of		SIP	

Definition	Indicates the role of the described object in the library or archive.
Notes	Ref. the use element described by the AES57-2011 (r2017) audio standard: The use element shall be used to indicate the role of the described audio object in the library or archive. [see: http://www.aes.org/publications/standards/] Values: > original master > preservation master > production master > service > preview > other (free text)
Values allowed	DAAN_file/Media: highres; proxy; auxillary; other DAAN_item/Archival state: archiefmaster; veiligstelling materiaal; consultatiekopie
UsageNotes	Repeatable: the use is documented in two seperate meanings.

Premis_v3	**1.04.3.03**	Name	**descriptiveMetadata**	Implemented	I
Object Category	IRFB	Value type	Text	Fimpl	
Obligation	O	Data Constraint	None	Bimpl	
Repeatable	NR	Attribute of		SIP	

Definition	information about the object itself, such as names of people directly involved with the object and the subject headings that could describe its contents
Notes	
Values allowed	
UsageNotes	

Premis_v3	**1.04.3.04**	Name	**duration**	Implemented	B
Object Category	B	Value type	Text	Fimpl	
Obligation	O	Data Constraint	Structured form.	Bimpl	metadata
Repeatable	NR	Attribute of	MXF; WAV	SIP	
Definition	The elapsed time of the entire item or track in playback.				
Notes	Ref. duration in METS: The elapsed time of the entire item in playback. This value should be expressed in ISO 8601 format, i.e. HH:MM:SS/1000 A 1 hour, 26 minute, 32 second video object would be entered as 01:26:32.00				
Values allowed					
UsageNotes					

Premis_v3	**1.04.3.05**	Name	**framePosition**	Implemented	F
Object Category	F	Value type		Fimpl	header
Obligation	O	Data Constraint		Bimpl	
Repeatable	NR	Attribute of	DPX	SIP	
Definition	Frame number in the image sequence.				
Notes					
Values allowed					
UsageNotes					

Premis_v3	**1.04.3.06**	Name	**sequenceLength**	Implemented	F
Object Category	F	Value type		Fimpl	header
Obligation	O	Data Constraint		Bimpl	
Repeatable	NR	Attribute of	DPX	SIP	
Definition	Defines the total number of frames in the image sequence.				
Notes					
Values allowed					
UsageNotes					

Premis_v3	**1.04.3.07**	Name	**pixels**	Implemented	B
Object Category	B	Value type	Numeric	Fimpl	
Obligation	O	Data Constraint	Integer	Bimpl	metadata
Repeatable	NR	Attribute of	MXF; DPX; Tiff	SIP	
Definition	The number of distinct pixels in each dimension that can be displayed.				
Notes	It is expressed as a number of horizontal pixels (width) times the number of vertical pixels (height) (e.g. 640x480 or 720x480). [baton] Ref Rucore: differentiates between imageWidth/Height and frameWidht/Height for video. Both in pixels.				
Values allowed					
UsageNotes	dpx: Pixels per line; Lines per image element LinesPerElement specifies the number of lines in the element. There is an equal number of lines in each element.				

Premis_v3	**1.04.3.07.1**	Name	**pixelsVertical**	Implemented	B
Object Category	B	Value type	Numeric	Fimpl	
Obligation	O	Data Constraint	Integer	Bimpl	
Repeatable	NR	Attribute of	MXF; DPX; Tiff	SIP	B
Definition	The height, in pixels, of the video/picture frame.				
Notes					
Values allowed					
UsageNotes					

Premis_v3	**1.04.3.07.2**	Name	**pixelsHorizontal**	Implemented	B
Object Category	B	Value type	Numeric	Fimpl	
Obligation	O	Data Constraint	Integer	Bimpl	
Repeatable	NR	Attribute of	MXF; DPX; Tiff	SIP	B
Definition	The width, in pixels, of the video/picture frame.				
Notes					
Values allowed					
UsageNotes					

Premis_v3	**1.04.3.08**	Name	**frame**	Implemented	B
Object Category	B	Value type		Fimpl	
Obligation	O	Data Constraint	Container	Bimpl	metadata
Repeatable	NR	Attribute of	MXFvideo	SIP	
Definition	Information about the video frame.				
Notes					
Values allowed					
UsageNotes					

Premis_v3	**1.04.3.08.1**	Name	**frameAspectRatio**	Implemented	B
Object Category	B	Value type	Text	Fimpl	
Obligation	O	Data Constraint	CV	Bimpl	metadata
Repeatable	NR	Attribute of	MXFvideo	SIP	
Definition	Display Aspect Ratio or DAR is the ratio of the video frame's physical (displayed) width to its height, regardless of the number of pixels used to represent the video image. [baton]				
Notes	L.Boch: The Display Aspect Ratio is how the the image is intended to be presented to the human viewer (for correct presentation of the picture). Specified as the ratio of a horizontal integer and a vertical integer. For example, a SMPTE 274M signal has a pixel aspect ratio of 1:1, which is 1920 active pixels and 1080 active lines in a 16:9 frame. Present as a ratio or decimal such as 4/3 or 6/9 or 1.33333 Ref. frameAspectRatio according to RUcore: The desired aspect ratio for the image on screen. Some video objects produced for display on non-square pixel monitors (i.e. analog TV sets) have a desired aspect ratio that differs from the actual ratio of horizontal to vertical pixels. Suggested CV: 4:3; 4:3 (16:9 letterbox); 4:3 (16:9 anamorphic); 16:9; 5:5.3; 7:3 (Panavision or Cinemascope); 2.35:1; 1.85:1 Examples: Typical NTSC video has an aspect ratio of 4:3. Most HD video (i.e. 1080i, 1080p) has an aspect ratio of 16:9. [see: https://rucore.libraries.rutgers.edu/open/projects/openmic/index.php?sec=guides&sub=metadata]				
Values allowed					
UsageNotes					

Premis_v3	**1.04.3.08.2**	Name	**frameRate**	Implemented	B
Object Category	B	Value type	Numeric	Fimpl	
Obligation	O	Data Constraint	Integer	Bimpl	metadata
Repeatable	NR	Attribute of	MXFvideo	SIP	
Definition	The number of frames per second at which the video source was captured.				
Notes	Typical NTSC video has a frame rate of 29.97 frames per second (often estimated at 30 fps). Most feature films have a frame rate of 24 frames per second. Digital Video (DV formats) can be shot at either rate. [See: https://rucore.libraries.rutgers.edu/open/projects/openmic/index.php?sec=guides&sub=metadata&pg=t_frame]				
Values allowed	25 fps				
UsageNotes					

Premis_v3	**1.04.3.08.3**	Name	**frameStructure**	Implemented	B
Object Category	B	Value type	Text	Fimpl	
Obligation	O	Data Constraint	CV	Bimpl	metadata
Repeatable	NR	Attribute of	MXFvideo	SIP	
Definition	The temporal scanning structure of the video object.				
Notes	Typical analog NSTC video is interlaced. HD and digital formats can be either interlaced or progressive, often indicated by the notation of the video resolution (480i is interlaced, 720p is progressive). See: [https://rucore.libraries.rutgers.edu/open/projects/openmic/index.php?sec=guides&sub=metadata&pg=t_frame]				
Values allowed	interlaced progressive (= non-interlaced)				
UsageNotes					

Premis_v3	**1.04.3.09**	Name	**activeFormatDescription**	Implemented	B
Object Category	B	Value type		Fimpl	
Obligation	O	Data Constraint		Bimpl	metadata
Repeatable	NR	Attribute of	MXFvideo	SIP	

Definition

A set of codes that carries information about the aspect ratio and active picture characteristics.

Notes

Standard AFD codes provide information to video devices about where in the coded picture the active video is and also the "protected area" which is the area that needs to be shown. Outside the protected area, edges at the sides or the top can be removed without the viewer missing anything significant. Video decoders and display devices can then use this information, together with knowledge of the display shape and user preferences, to choose a presentation mode.

Active Format Description (AFD) is a standard set of codes sent in the video stream that carries information about their aspect ratio and active picture characteristics. AFD is used by television broadcasters to enable both 4:3 and 16:9 television sets to optimally present pictures transmitted in either format. The AFD is used where there are compatibility problems between the source format and the target format.

Pillarboxing (reversed letterboxing) is the display of an image within a wider image frame by adding lateral mattes (vertical bars at the sides); for example, a 1.33:1 image has lateral mattes when displayed on a 16:9 aspect ratio television screen.

Values allowed

Reserved, AFD Unknown, Box 16:9, Box 14:9, Box > 16:9, 4:3, …

Info not found; 4 bij 3

UsageNotes

Premis_v3	**1.04.3.10**	Name	**color**	Implemented	IR
Object Category	IRFB	Value type	Text	Fimpl	
Obligation	O	Data Constraint	CV	Bimpl	
Repeatable	NR	Attribute of	MXF; DPX; Tiff	SIP	

Definition	The overall color, grayscale, or black and white nature of a media item, as a single occurrence or combination of occurrences in or throughout the media item.
Notes	Ref. PBCore: formatColors Values: B&W, Color, Grayscale, B&W with grayscale sequences, B&W with color sequences, Grayscale with B&W sequences, Grayscale with color sequences, Color with B&W sequences, Color with grayscale sequences, Other Indicates the possible color, grayscale, or black and white color schemes or combinations for a media item. If the media item is primarily color, grayscale, or black and white, then use one of these three simple terms from the picklist. If the media item has a primary color scheme, but includes significant embedded sequences of another color set, then a color combination from the picklist can be used to show the primary and secondary color schemes The descriptor formatColors is not intended to measure or identify specific color metrics of pixels in a static image or moving image, but describes the media item in a more generalized way in order to inform consumers what to expect during media delivery and/or playback. [See: http://v1.pbcore.org/PBCore/formatColors.html#otherattributes]
Values allowed	
UsageNotes	

Premis_v3	**1.04.3.11**	Name	**language**	Implemented	IR
Object Category	IRFB	Value type	Text	Fimpl	
Obligation	O	Data Constraint	CV	Bimpl	
Repeatable	R	Attribute of		SIP	

Definition	A designation of the language in which the content of a resource is expressed.
Notes	according to MODS (lib of congress): <language> is a container element; the actual language values are recorded in the subelement <languageTerm>. Other elements of the container are: usage ("primary") and objectPart (titles; subtitles; intertitles; captions; sound track) [See: http://www.loc.gov/standards/mods/userguide/language.html]
Values allowed	
UsageNotes	

Premis_v3	**1.04.3.12**	Name	**soundPresent**	Implemented	F
Object Category	F	Value type	Binary	Fimpl	metadata
Obligation	O	Data Constraint	CV	Bimpl	
Repeatable	NR	Attribute of	MXF; WAV	SIP	
Definition	Specifies whether a sound track is present within a video object.				
Notes	yes; no [See: https://rucore.libraries.rutgers.edu/open/projects/openmic/index.php?sec=guides&sub=metadata&pg=t_sound-pres]				
Values allowed					
UsageNotes					

Premis_v3	**1.05**	Name	**objectCharacteristics**	Implemented	FB
Object Category	FB	Value type		Fimpl	
Obligation	M	Data Constraint	Container	Bimpl	
Repeatable	R	Attribute of		SIP	
Definition	Technical properties of a file or bitstream that are applicable to all or most formats.				
Notes	There are some important technical properties that apply to objects of any format. Detailed definition of format-specific properties are included within objectCharacteristicsExtension.				
Values allowed					
UsageNotes	The semantic units included in objectCharacteristics should be treated as a set of information that pertains to a single object at a single compositionLevel. Object characteristics may be repeated when an object was created by applying two or more encodings, such as compression and encryption. In this case each repetition of objectCharacteristics would have an incrementally higher compositionLevel. >> for NISV encoding is done as one step; only one set of Object characteristics is sufficient. When encryption is applied, the objectCharacteristics block must include an inhibitors semantic unit. >> this is not the case for NISV. A bitstream embedded within a file may have different object characteristics than the file. Where these characteristics are relevant for preservation, they should be recorded. >> the bitstream category has its own objectCharacteristics defined.				

Premis_v3	**1.05.1**	Name	**compositionLevel**	Implemented	FB
Object Category	FB	Value type	Text	Fimpl	header
Obligation	M	Data Constraint	Non-negative integers (or “un	Bimpl	
Repeatable	NR	Attribute of		SIP	

Definition	An indication of whether the object is subject to one or more processes of decoding or unbundling.
Notes	A file or bitstream can be encoded with compression, encryption, etc., or bundled with other files or bitstreams into larger packages. Knowing the order in which these actions are taken is important if the original Object or Objects must be recovered. A file or bitstream can be subject to multiple encodings that must be decoded in reverse order (highest to lowest). For example, file A may be compressed to create file B, which is encrypted to create file C. To recreate a copy of the base file A, one would have to decrypt file C to create file B and then decompress file B to create file A. A compositionLevel of zero indicates that the object is a base object and not subject to further decoding, while a level of 1 or higher indicates that one or more decodings must be applied. Numbering goes lowest to highest (first encoded = 0). 0 is base object; 1-n are subsequent encodings. The compositionLevel should be set whenever possible, however it is permitted to omit (or use “unknown”) if it not possible to calculate this. Use 0 if there is only one compositionLevel.
Values allowed	0, 1, 2 …
UsageNotes	for NIBG so far only one compositionLevel is applicable. SIP: In case of a external depositor of the digital file this field is recommended for the SIP. Generaly spoken NISV will not encourage CompositionLevels; if the field is not offered it is considerd to value null. CHECK When multiple file objects are bundled together as filestreams within a package file object (e.g., a ZIP file), the individual filestream objects are not composition levels of the package file object. They should be considered separate objects, each with their own composition levels. >> for NIBG this is the case for the DPX.

Premis_v3	**1.05.2**	Name	**fixity**	Implemented	F
Object Category	FB	Value type		Fimpl	
Obligation	O	Data Constraint	Container	Bimpl	
Repeatable	R	Attribute of		SIP	
Definition	Information used to verify whether an object has been altered in an undocumented or unauthorized way.				
Notes	To perform a fixity check, a message digest calculated at some earlier time is compared with a message digest calculated at a later time. If the digests are the same, the object was not altered in the interim. (Note that the terms “message digest” and “checksum” are commonly used interchangeably. However, the term “checksum” is more correctly used for the product of a cyclical redundancy check (CRC), whereas the term “message digest” refers to the result of a cryptographic hash function, which is what is referred to here.)				
Values allowed					
UsageNotes	Bitstream level: message digests can be computed for bitstreams although they are not as common as with files. For example, the JPX format, which is a JPEG2000 format, supports the inclusion of MD5 or SHA-1 message digests in internal metadata that was calculated on any range of bytes of the file. >> not implemented for NISV.				

Premis_v3	**1.05.2.1**	Name	**messageDigestAlgorithm**	Implemented	F
Object Category	FB	Value type	Text	Fimpl	implicit
Obligation	M	Data Constraint	CV	Bimpl	
Repeatable	NR	Attribute of		SIP	F
Definition	The specific algorithm used to construct the message digest for the digital object.				
Notes	Examples: MD5 Adler-32 HAVAL SHA-1 SHA-256 SHA-384 SHA-512 TIGER WHIRLPOOL				
Values allowed	MD5				
UsageNotes					

Premis_v3	**1.05.2.2**	Name	**messageDigest**	Implemented	F
Object Category	FB	Value type	Text	Fimpl	header
Obligation	M	Data Constraint	None	Bimpl	
Repeatable	NR	Attribute of		SIP	F
Definition	The output of the message digest algorithm.				
Notes					
Values allowed					
UsageNotes					

Premis_v3	**1.05.2.3**	Name	**messageDigestOriginator**	Implemented	F
Object Category	FB	Value type	Text	Fimpl	header
Obligation	O	Data Constraint	None	Bimpl	
Repeatable	NR	Attribute of		SIP	
Definition	The agent that created the original message digest that is compared in a fixity check.				
Notes	A preservation repository may ingest files that have had message digests calculated by the submitter; checking these ensures that the file as received is the same as the file as sent. The repository may also ingest files that do not have message digests, and so must calculate the initial value upon ingest. It can be useful to know what Agent calculated the initial value of the message digest.				
Values allowed	DRS (Digital Repository) NPO				
UsageNotes	To be discussed: implementation of DAAN will introduce the possiblity to accept (and store) checksums from external agents.				

Premis_v3	**1.05.3**	Name	**size**	Implemented	F
Object Category	FB	Value type	Numeric	Fimpl	metadata
Obligation	O	Data Constraint	Integer	Bimpl	
Repeatable	NR	Attribute of		SIP	F
Definition	The size in bytes of the file or bitstream stored in the repository.				
Notes	Size is useful for ensuring the correct number of bytes from storage has been retrieved and that an application has enough room to move or process files. It might also be used when billing for storage.				
Values allowed					
UsageNotes	Size is recommended, but not mandatory for the sip. But in case the Message Digest is not genuine but created by the repository of NISV, the size can be very usefull in checking the ingest.				

Premis_v3	**1.05.4**	Name	**format**	Implemented	F
Object Category	FB	Value type		Fimpl	
Obligation	M	Data Constraint	Container	Bimpl	
Repeatable	R	Attribute of		SIP	
Definition	Identification of the format of a file or bitstream where format is defined as the organization of digital information according to preset specifications.				
Notes	A format is the container that holds the data. For instance the grouping of compressed video as defined by the codec. The container takes care of packaging, transport, and presentation. The container is usually represented by a file extension. For example the MPEG4 container is usually represented by a .mp4 file type. A bitstream embedded within a file may have different characteristics from the larger file. For example, a bitstream in LaTeX format could be embedded within an SGML file, or multiple images using different colorspaces could be embedded within a TIFF file. Format must be recorded for every object. When the bitstream format can be recognized by the repository and the repository might want to treat the bitstream differently from the embedding file for preservation purposes, format can be recorded for embedded bitstreams. NB: The format of a file or bitstream should be ascertained by the repository on ingest. Even if this information is provided by the submitter, directly in metadata or indirectly via the filename extension, recommended practice is to identify the format independently by parsing the file when possible. If the format cannot be identified at the time of ingest, it is valid to record that it is unknown, but the repository should subsequently make an effort to identify the format, even if manual intervention is required.				
Values allowed					
UsageNotes	at NISV format of a bitstream is not relevant				

Premis_v3	**1.05.4.1**	Name	**formatDesignation**	Implemented	F
Object Category	FB	Value type		Fimpl	
Obligation	O*	Data Constraint	Container	Bimpl	
Repeatable	NR	Attribute of		SIP	
Definition	An identification of the format of the object.				
Notes	*) Obligation: at least one subunit (i.e. either formatDesignation or formatRegistry) must be present if this container is included, or both may be used. If the subunit (formatDesignation or formatRegistry) needs to be repeated, the entire format container is repeated. This allows for association of format designation with a particular set of format registry information. For example, if the precise format cannot be determined and two format designations are recorded, each is given within a separate format container. In such cases the formatNote element can be used to distinguish between the cases where either (i) it is known that the file complies with multiple format definitions or (ii) it is known that the file complies with one of these formats but there is insufficient knowledge to distinguish between them. The format container may also be repeated for multiple format registry entries.				
Values allowed					
UsageNotes	formatRegistry is not used by NISV				

Premis_v3	**1.05.4.1.1**	Name	**formatName**	Implemented	F
Object Category	FB	Value type	Text	Fimpl	metadata
Obligation	M	Data Constraint	CV	Bimpl	metadata
Repeatable	NR	Attribute of		SIP	FB
Definition	A commonly accepted name for the format of the file or bitstream.				
Notes	See for examples: http://metadataregistry.org/conceptprop/search?concept_term=format&commit=Search+Vocabularies				
Values allowed					
UsageNotes	SIP: the formatName has to be affirmed in the contract. It is not mandatory as part of the metadata or headerinfo. NISV does check the format at ingest.				

Premis_v3	**1.05.4.1.2**	Name	**formatVersion**	Implemented	FB
Object Category	FB	Value type	Text	Fimpl	metadata
Obligation	O	Data Constraint	None	Bimpl	metadata
Repeatable	NR	Attribute of		SIP	FB
Definition	The version of the format named in formatName.				
Notes	If the format is versioned, formatVersion should be recorded where applicable. It can be either a numeric or chronological designation.				
Values allowed					
UsageNotes	SIP: the formatVersion has to be affirmed in the contract. It is not mandatory as part of the metadata or headerinfo. NISV does check the format at ingest.				

Premis_v3	**1.05.5**	Name	**creatingApplication**	Implemented	F
Object Category	FB	Value type		Fimpl	
Obligation	O	Data Constraint	Container	Bimpl	
Repeatable	R	Attribute of		SIP	

Definition	Information about the application that created the object.
Notes	Can be useful for problem solving purposes. This semantic unit applies both to objects created outside of the repository and subsequently ingested, and to objects created by the repository, for example, through migration Events. If the object was created by the repository, assignment of creating application information should be straightforward. If the object was created outside the repository, it is possible this information could be supplied by the depositor. It might also be extracted from the file itself; the name of the creating application is often embedded within the file. The creatingApplication container is repeatable if more than one application processed the object in turn. For example, a file could be created by Microsoft Word and later turned into a PDF using Adobe Acrobat. Details of both the Word and Acrobat applications may be recorded. However, if both files are stored in the repository, each file should be completely described as an Object entity and linked by using relationship information with a relationshipType “derivation.” The container may also be repeated to record the creating application before the object was ingested as well as the creating application used as part of the ingest process. For example, an HTML file was created pre-ingest using Dreamweaver, and the Web crawler Heritrix then captured a snapshot of the files as part of ingest.
Values allowed	
UsageNotes	More context about the creation is possibly available via the projectname (DAAN item, Output(Creation)/Project; Name) Ask yourself: where was the file born.

Premis_v3	**1.05.5.1**	Name	**creatingApplicationName**	Implemented	F
Object Category	FB	Value type	Text	Fimpl	metadata
Obligation	O	Data Constraint	None	Bimpl	
Repeatable	NR	Attribute of		SIP	F

Definition	A designation for the name of the software program that created the object.
Notes	The creatingApplication is the application that created the object in its current format, not the application that created the copy written to storage. For example, if a document is created by Microsoft Word and subsequently copied to archive storage by a repository’s Ingest program, the creatingApplication is MS Word, not the Ingest program.
Values allowed	
UsageNotes	

Premis_v3	**1.05.5.2**	Name	**creatingApplicationVersion**	Implemented	F
Object Category	FB	Value type	Text	Fimpl	metadata
Obligation	O	Data Constraint	None	Bimpl	
Repeatable	NR	Attribute of		SIP	F
Definition	The version of the software program that created the object.				
Notes					
Values allowed					
UsageNotes					

Premis_v3	**1.05.5.3**	Name	**dateCreatedByApplication**	Implemented	F
Object Category	FB	Value type	Date	Fimpl	metadata
Obligation	O	Data Constraint	Structured form.	Bimpl	
Repeatable	NR	Attribute of		SIP	F
Definition	The actual or approximate date and time the object was created.				
Notes	Use the most precise date available. This is the date the object was created by the creating application, not the date any copy was made externally or by the repository. For example, if a file is created by Microsoft Word in 2001 and two copies are made in 2003, the dateCreatedByApplication of all three files is 2001. The date a file is written to storage can be recorded as an Event. If the object itself contains internal creation and modification dates, the modification date should be used as dateCreatedByApplication. The creation date, in PREMIS terms, of an Object is the time that it was last modified; that is, the last time the document was saved. This is discussed in the 1:1 Principle section. If the application is a Web harvester capturing an object at a point in time, use the date captured as the creation date.				
Values allowed					
UsageNotes					

Premis_v3	**1.05.5.4**	Name	**creatingApplicationExtension**	Implemented	F
Object Category	FB	Value type		Fimpl	
Obligation	O	Data Constraint	Container	Bimpl	
Repeatable	NR	Attribute of		SIP	
Definition	Creating application information using semantic units defined externally to PREMIS.				
Notes	This CreatingApplicationExtension is used for a container of information detailing the SourceInformation related to the imaged subject. The definition of this extension is derived from the NISO-standard.				
Values allowed					
UsageNotes					

Premis_v3	**1.05.5.4.1**	Name	**sourceType**	Implemented	F
Object Category	FB	Value type		Fimpl	metadata
Obligation	O	Data Constraint	Container	Bimpl	
Repeatable	NR	Attribute of		SIP	

Definition	a data element that specifies the medium of the analog source material scanned to create a digital file
Notes	NISO 8.1.1 sourceType: a data element that specifies the medium of the analog source material scanned to create a digital still image Examples: photograph; daguerreotype; reflection print; gelatin silver print; Acme Bronze 100; chromogenic film; 35 mm color negative Kodak Royal Gold 100 Emul. 3712011; text document or book; microfilm; sculpture; original scene; contact sheet A
Values allowed	
UsageNotes	For born digital: no scanning. No value should be recorded. Alternative: "original scene" In case of scanning (or digitizing) but unknown source: value should be unknown. In case of scanning and the source is known, the allowed values depend on the medium of the scanned source. In case the source is in the archive, a reference to the object is sufficient in the SIP. Otherwise all information shoud be in the SIP. Relevant attributes: carrier medium, carrier type, carrier format in case of film: also Preservation-element (duplicaat positief; duplicaat negatief) (= conservation element?)

Premis_v3	**1.05.5.4.2**	Name	**sourceID**	Implemented	F
Object Category	FB	Value type		Fimpl	
Obligation	O	Data Constraint	Container	Bimpl	
Repeatable	R	Attribute of		SIP	

Definition	a container of information detailing the SourceID (identifier) of the imaged object
Notes	This identifier must be unique within the local system. Because an image may have multiple identifiers associated with it (accession number, digital repository URN, delivery URI, etc.), the SourceID container of data elements is repeatable, but individual data elements within a container are not. To attach the semantic meaning to the identifier, the SourceID may have several sub-elements in order to identify both the system or domain in which it is unique, as well as the value itself. The SourceID is comprised of the sub-elements sourceIDType and sourceIDValue. The combination of these sub-elements must be unique.
Values allowed	
UsageNotes	

Premis_v3	**1.05.5.4.2.1**	Name	**sourceIDType**	Implemented	F
Object Category	FB	Value type	Text	Fimpl	implicit
Obligation	O	Data Constraint	None	Bimpl	
Repeatable	NR	Attribute of		SIP	F
Definition	a data element that designates the system or domain in which the identifier is unique; to be used in conjunction with 8.1.2.2 sourceIDValue				
Notes	relatie met analoge drager				
Values allowed	[RLG Union Catalog] [OCLCWorldCat] [a local system name] [local photograph accession system name]				
UsageNotes	Link to a unique identifier for a descriptive record of the source of image. Container is repeatable. May be multiple descriptive records in various systems.				

Premis_v3	**1.05.5.4.2.2**	Name	**sourceIDValue**	Implemented	F
Object Category	FB	Value type	Text	Fimpl	metadata
Obligation	O	Data Constraint	None	Bimpl	
Repeatable	NR	Attribute of		SIP	F
Definition	a data element that designates the value of the SourceID				
Notes	relatie met analoge drager: Archiefnummer				
Values allowed	RLG Union Catalog record number OCLC record number Local system control number				
UsageNotes	Link to a unique identifier for a descriptive record of the source of image. Container is repeatable. May be multiple descriptive records in various systems.				

Premis_v3	**1.05.5.4.3**	Name	**sourceSignificantProperties**	Implemented	F
Object Category	FB	Value type		Fimpl	
Obligation	O	Data Constraint	Container	Bimpl	
Repeatable	R	Attribute of		SIP	
Definition	a container of information that specifies the main properties to be preserved				
Notes					
Values allowed					
UsageNotes	If sub-containers do not contain any data or are not applicable, they need not be recorded.				

Premis_v3	**1.05.5.4.3.1**	Name	**sourceDimension**	Implemented	F
Object Category	FB	Value type		Fimpl	
Obligation	O	Data Constraint	Container	Bimpl	
Repeatable	NR	Attribute of	Tiff;DPX;MXF	SIP	
Definition	a container of information that specifies the width x height of the imaged object				
Notes					
Values allowed					
UsageNotes					

Premis_v3	**1.05.5.4.3.1.1**	Name	**sourceDimensionValue**	Implemented	F
Object Category	FB	Value type	Text	Fimpl	metadata
Obligation	O	Data Constraint		Bimpl	
Repeatable	NR	Attribute of	Tiff;DPX;MXF	SIP	F
Definition	a data element that specifies the width x height of the imaged object				
Notes	relatie met analoge drager: Formaat				
Values allowed	7.63 (e.g., 7.63 in) 32 (e.g., 32 mm)				
UsageNotes	If physical dimensions of the source and the dimensions actually imaged differ, record the X dimension of area imaged. For example, if a photographic print measuring 8 inches in the X dimension is imaged in its entirety, the image file's sourceXDimensionValue would be "8". If the same photographic print is imaged in its entirety with a 1-inch border on all sides, the image file's sourceXDimensionValue would be "10", because the X dimension of the total area imaged includes the space around the print itself. If a partial detail of a large map is imaged, and the detail measures 6 inches in the X dimension while the map measures 40 inches in the X dimension, the image file's sourceXDimensionValue would be "6". If a stained glass window is imaged, and the window measures 6 feet in the X dimension, while the church wall in which it is located has a measurement of 300 feet in the X dimension, the image file's sourceXDimensionValue would be "6". The unit of measure (inches, meters, etc.) used must be specified in 8.1.3.1.2 sourceXDimensionUnit. If unknown or impractical to record, the sourceXDimensionValue may be deduced. See 9.1.1 samplingFrequencyPlane.				

Premis_v3	**1.05.5.4.3.1.2**	Name	**sourceDimensionUnit**	Implemented	F
Object Category	FB	Value type	Text	Fimpl	metadata
Obligation	O	Data Constraint	CV	Bimpl	
Repeatable	NR	Attribute of	Tiff;DPX;MXF	SIP	F
Definition	a data element that specifies the unit of measure used in sourceDimensionValue				
Notes	relatie met analoge drager: Formaat (bevat tevens de unit 'cm')				
Values allowed	cm				
UsageNotes					

Premis_v3	**1.05.5.4.3.2**	Name	**sourceAspectRatio**	Implemented	F
Object Category	FB	Value type	Text	Fimpl	metadata
Obligation	O	Data Constraint		Bimpl	
Repeatable	NR	Attribute of	DPX;MXF	SIP	F
Definition	a data element that designates the aspectRatio of the Source				
Notes					
Values allowed					
UsageNotes					

Premis_v3	**1.05.5.4.3.3**	Name	**sourceColor**	Implemented	F
Object Category	FB	Value type	Text	Fimpl	metadata
Obligation	O	Data Constraint		Bimpl	
Repeatable	NR	Attribute of	Tiff;DPX;MXF	SIP	F
Definition	a data element that designates the colortype of the Source				
Notes					
Values allowed					
UsageNotes					

Premis_v3	**1.05.5.4.3.4**	Name	**sourceDuration**	Implemented	F
Object Category	FB	Value type	Text	Fimpl	metadata
Obligation	O	Data Constraint		Bimpl	
Repeatable	NR	Attribute of	WAV;MXF;DPX	SIP	F
Definition	a data element that designates the duration of the Source				
Notes					
Values allowed					
UsageNotes					

Premis_v3	**1.05.5.4.3.5**	Name	**sourceFramerate**	Implemented	F
Object Category	FB	Value type	Text	Fimpl	metadata
Obligation	O	Data Constraint		Bimpl	
Repeatable	NR	Attribute of	WAV;MXF;DPX	SIP	F
Definition	a data element that designates the speed of the Source				
Notes					
Values allowed					
UsageNotes					

Premis_v3	**1.05.5.4.4**	Name	**digitizationRemarks**	Implemented	F
Object Category	FB	Value type	Text	Fimpl	metadata
Obligation	O	Data Constraint	None	Bimpl	
Repeatable	R	Attribute of		SIP	F
Definition	operator remarks				
Notes					
Values allowed					
UsageNotes					

Premis_v3	**1.05.5.4.5**	Name	**captureDevice**	Implemented	F
Object Category	FB	Value type	Text	Fimpl	metadata
Obligation	O	Data Constraint	CV	Bimpl	
Repeatable	NR	Attribute of		SIP	F
Definition	a data element that designates the classification of device used to create the image data				
Notes	The first creation of the digital image: how was this done. This does not refer to device that created the analogue source.				
Values allowed	transmission scanner reflection print scanner digital still camera still from video				
UsageNotes					

Premis_v3	**1.05.5.4.6**	Name	**captureDeviceManufacturer**	Implemented	F
Object Category	FB	Value type	Text	Fimpl	metadata
Obligation	O	Data Constraint	None	Bimpl	
Repeatable	NR	Attribute of		SIP	F
Definition	a data element that identifies the manufacturer of the scanner used to create the image, or the manufacturer of the digital camera used to create the image				
Notes					
Values allowed					
UsageNotes					

Premis_v3	**1.05.5.4.7**	Name	**imageProducer**	Implemented	F
Object Category	FB	Value type	Text	Fimpl	metadata
Obligation	O	Data Constraint	None	Bimpl	
Repeatable	R	Attribute of		SIP	F
Definition	a data element that identifies the organization-level producer(s) of the image				
Notes	Identifies the name of the service provider or production unit responsible for creation of the file/bitstream i.e., the scanned image, transcribed text, audio file, etc. Luna Imaging, Inc. JJT, Inc. University of Michigan; Digital Library Production Services Harvard College Library; Digital Imaging Group University of Virginia; William Blake Archive When Repeatable = Y, the following is an example of how to code the information: <ImageProducer> University of Virginia </ImageProducer> <ImageProducer> William Blake Archive </ImageProducer>				
Values allowed					
UsageNotes					

Premis_v3	**1.05.7**	Name	**objectCharacteristicsExtension**	Implemented	FB
Object Category	FB	Value type		Fimpl	
Obligation	O	Data Constraint	Container	Bimpl	
Repeatable	R	Attribute of		SIP	
Definition	A container to include semantic units defined outside of PREMIS.				
Notes	objectCharacteristicsExtension is used for format-specific metadata.				
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.0.01**	Name	**byteOrder**	Implemented	F
Object Category	FB	Value type	Binary	Fimpl	header
Obligation	O	Data Constraint	CV	Bimpl	
Repeatable	NR	Attribute of		SIP	F
Definition	Specifies the "Endianness" of digital data.				
Notes	Computer processors are optimized for processing data in a specific order, leading to certain codecs being optimized for specific byte orders to better accommodate these processors. [OpenMIC] volgorde van de bytes in het geheugen http://rucore.libraries.rutgers.edu/open/projects/openmic/index.php?sec=guides&sub=metadata&pg=t_byte-ord				
Values allowed	little endian; big endian SDPX (Big Endian)				
UsageNotes	WAV: The default byte ordering assumed for WAVE data files is little-endian. Files written using the big-endian byte ordering scheme have the identifier RIFX instead of RIFF (zie Format). MXF: The order of bit significance in a byte from left to right. i.e. 0-least-to-most, 1-most-to-least, 2-mixed-endianess; dubbelt met endianness DPX: header: Magic Number Indicates the start of the image file and is used to determine byte order. The file format allows machines to create files in either of the two most common byte orders, whichever is easier for that machine. Byte-order translation is only required for machines reading files that were created on a machine with reverse byte order. Programs creating DPX files should write the magic number with the ASCII value of ‘‘SDPX’’ (0x53445058 hex). Programs reading DPX files should use the first four bytes to determine the byte order of the file. The first four bytes will be S, D, P, X if the byte order is most significant byte first, or X, P, D, S if the byte order is least significant byte first.				

Premis_v3	**1.05.7.1.01**	Name	**timecodeRecordMethod**	Implemented	F
Object Category	FB	Value type	Text	Fimpl	metadata
Obligation	O	Data Constraint	CV	Bimpl	
Repeatable	NR	Attribute of	MXF	SIP	
Definition	Method for recording timecode on the video source item				
Notes	RDW :There could be a controlled vocabulary here, as there are a few common types: VITC, LTC, ATC, burnt-in. http://en.wikipedia.org/wiki/Timecode#Video_and_film_timecode See also: http://rucore.libraries.rutgers.edu/open/projects/openmic/index.php?sec=guides&sub=metadata&pg=t_time-code				
Values allowed					
UsageNotes	fixed (formatspecific)				

Premis_v3	**1.05.7.1.02**	Name	**timecodeRecordType**	Implemented	F
Object Category	FB	Value type		Fimpl	metadata
Obligation	O	Data Constraint		Bimpl	
Repeatable	NR	Attribute of	MXF	SIP	
Definition	Type of timecode recorded on video source item, e.g., SMPTE dropframe, SMPTE nondropframe, etc..				
Notes	SMPTE dropframe: false or true				
Values allowed	False (blijkt uit het format)				
UsageNotes	MXF vb FALSE				

Premis_v3	**1.05.7.1.03**	Name	**timecodeInitialValue**	Implemented	F
Object Category	FB	Value type	Text	Fimpl	metadata
Obligation	O	Data Constraint	Structured form.	Bimpl	
Repeatable	NR	Attribute of	MXF	SIP	
Definition	Starting value for timecode. Geeft beginpositie voor alle tracks aan.				
Notes					
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.1.04**	Name	**originSourcePackage**	Implemented	F
Object Category	FB	Value type		Fimpl	metadata
Obligation	O	Data Constraint		Bimpl	
Repeatable	NR	Attribute of	MXF	SIP	
Definition	Positie tijdcodetrack tov videotrack				
Notes	0=gelijk, neg is ervoor, pos is erna				
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.1.05**	Name	**audioTracks**	Implemented	F
Object Category	FB	Value type	Numeric	Fimpl	metadata
Obligation	O	Data Constraint	CV	Bimpl	
Repeatable	NR	Attribute of	MXF	SIP	
Definition	aantal audio tracks				
Notes					
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.1.06**	Name	**videoTracks**	Implemented	F
Object Category	FB	Value type		Fimpl	metadata
Obligation	O	Data Constraint		Bimpl	
Repeatable	NR	Attribute of	MXF	SIP	
Definition					
Notes					
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.1.07**	Name	**indexTable**	Implemented	F
Object Category	FB	Value type		Fimpl	metadata
Obligation	O	Data Constraint		Bimpl	
Repeatable	NR	Attribute of	MXF	SIP	
Definition					
Notes					
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.1.08**	Name	**randomIndexPack**	Implemented	F
Object Category	FB	Value type		Fimpl	metadata
Obligation	O	Data Constraint		Bimpl	
Repeatable	NR	Attribute of	MXF	SIP	
Definition	Een index aan het einde van het bestand. Bepaalt hoe je moet gaan zoeken in een bestand; aanwezig of niet				
Notes					
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.1.09**	Name	**audioVideoDurationMismatch**	Implemented	F
Object Category	FB	Value type		Fimpl	metadata
Obligation	O	Data Constraint		Bimpl	
Repeatable	NR	Attribute of	MXF	SIP	
Definition					
Notes					
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.1.10**	Name	**essenceWrappingType**	Implemented	F
Object Category	FB	Value type		Fimpl	metadata
Obligation	O	Data Constraint		Bimpl	
Repeatable	NR	Attribute of	MXF	SIP	
Definition					
Notes					
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.1.11**	Name	**headerPartitionStatus**	Implemented	F
Object Category	FB	Value type		Fimpl	metadata
Obligation	O	Data Constraint		Bimpl	
Repeatable	NR	Attribute of	MXF	SIP	
Definition					
Notes					
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.1.12**	Name	**footerPartitionStatus**	Implemented	F
Object Category	FB	Value type		Fimpl	metadata
Obligation	O	Data Constraint		Bimpl	
Repeatable	NR	Attribute of	MXF	SIP	
Definition					
Notes					
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.1.13**	Name	**operationalPatern**	Implemented	F
Object Category	FB	Value type		Fimpl	metadata
Obligation	O	Data Constraint		Bimpl	
Repeatable	NR	Attribute of	MXF	SIP	
Definition					
Notes					
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.1.16**	Name	**timeCodeTrack**	Implemented	F
Object Category	B	Value type		Fimpl	
Obligation	O	Data Constraint		Bimpl	metadata
Repeatable	NR	Attribute of	MXF	SIP	
Definition	TimeCode Track (Material Package)				
Notes					
Values allowed	Present Not Present				
UsageNotes					

Premis_v3	**1.05.7.1.17**	Name	**timeCodeDiscontinuity**	Implemented	F
Object Category	B	Value type		Fimpl	
Obligation	O	Data Constraint		Bimpl	metadata
Repeatable	NR	Attribute of	MXF	SIP	
Definition	sprongen in het tijdcode track; bv na montage waarbij er een stukje is verwijderd				
Notes					
Values allowed	Present Not Present				
UsageNotes					

Premis_v3	**1.05.7.2.01**	Name	**codec**	Implemented	B
Object Category	B	Value type	Text	Fimpl	
Obligation	O	Data Constraint	CV	Bimpl	
Repeatable	NR	Attribute of	MXFvideo	SIP	

Definition	Name of the algorithm or schema used to compress, interpret, or formulate the audio or video data stream
Notes	Ref. PBCore: essenceTrackEncoding. Identifies how the actual information in an instantiation is compressed, interpreted, or formulated using a particular scheme. Identifying the encoding used is beneficial for a number of reasons, including as a way to achieve reversible compression; for the construction of document indices to facilitate searching and access; or for efficient distribution of the information across data networks with differing bandwidths or pipeline capacities. http://pbcore.org/pbcoreinstantiation/instantiationessencetrack/essencetrackencoding/ Examples, see: http://metadataregistry.org/concept/list/vocabulary_id/156.html Examples: MPEG is a familie of video codecs: MPEG-1, MPEG-2, MPEG-4 are compression algorithms. MPEG format, including MPEG video, MPEG audio and MPEG (video, audio synchronization) of three parts, MP3 (MPEG-3) audio files is a typical application of the MPEG audio, video include MPEG-1, MPEG-2 and MPEG4. MPEG-4 is often used in a 3GP format on mobile devices. H.264 is currently the highest quality video codec available, which means that it can usually look better at the same file size, or the same at smaller file sizes, than other codecs. It's also widely deployed, and most web browsers can play it (either natively, or via a Flash plugin), and so can many mobile devices, like the iPhone and Android. But there are licensing issues to consider.
Values allowed	SMPTE D10 30Mbps 625x50I SMPTE D10 50Mbps 625x50I (SD) MPEG-2 422P-HL Long GOP (HD)
UsageNotes	

Premis_v3	**1.05.7.2.02**	Name	**codecQuality**	Implemented	B
Object Category	B	Value type	Text	Fimpl	
Obligation	O	Data Constraint	CV	Bimpl	metadata
Repeatable	NR	Attribute of	MXFvideo	SIP	

Definition	Impact of the compression on quality e.g. lossless or lossy.
Notes	Mediainfo generates thisHarvard Univ Libraries refers to it as Codec Quality
Values allowed	4:2:2@HighLevel
UsageNotes	Example values: Lossy; Lossless

Premis_v3	**1.05.7.2.03**	Name	**compressionRatio**	Implemented	B
Object Category	B	Value type	Numeric	Fimpl	
Obligation	O	Data Constraint		Bimpl	metadata
Repeatable	NR	Attribute of	MXFvideo	SIP	
Definition	designates the ratio of the compressed file size to the original file size as the result of the use of a compressionScheme				
Notes	Designates the ratio of compressed file size to original file size as a result of the use of a compression scheme.For purposes of recording this number, the original file size is considered to be 1, so only the first half of the ratio (expression compres				
Values allowed	Example: 10 = 10:1 compression				
UsageNotes					

Premis_v3	**1.05.7.2.04**	Name	**sampling**	Implemented	B
Object Category	B	Value type	Text	Fimpl	
Obligation	O	Data Constraint	CV	Bimpl	metadata
Repeatable	NR	Attribute of	MXFvideo	SIP	
Definition	The sampling format of a moving image object, as expressed by luminance-chrominance ratio.				
Notes	Suggested CV: 4:1:1; 4:2:0; 4:2:2; 4:4:4; other See: Sampling size http://rucore.libraries.rutgers.edu/open/projects/openmic/index.php?sec=guides&sub=metadata&pg=t_vid-sampl Example values VideoMD: 4:2:0, 4:2:2, 2:4:4. Pbcore Sampling rate: http://metadataregistry.org/concept/list/vocabulary_id/132.html				
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.2.05**	Name	**cadencePattern**	Implemented	B
Object Category	B	Value type		Fimpl	
Obligation	O	Data Constraint		Bimpl	metadata
Repeatable	NR	Attribute of	MXFvideo	SIP	
Definition	framerate conversie bij film (24 fr/sec) en video is 25 fr/sec				
Notes	batonfeature, video, format independant				
Values allowed	3-2, 2-3-2-3, 2-3-3-2, 6-4 etc				
UsageNotes					

Premis_v3	**1.05.7.2.07**	Name	**PAR**	Implemented	B
Object Category	B	Value type	Text	Fimpl	
Obligation	O	Data Constraint	CV	Bimpl	
Repeatable	NR	Attribute of	MXFvideo	SIP	
Definition	Pixel aspect ratio or PAR is the aspect ratio of the pixels themselves				
Notes	Most digital imaging systems display an image as a grid of tiny, square pixels. However, some imaging systems, especially those that must be compatible with standard-definition television motion pictures, display an image as a grid of rectangular pixels, in which the pixel width and height are different. Pixel aspect ratio describes this difference. [Wikipedia] Example values: 1:1, 2:1				
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.2.08**	Name	**videoFormat**	Implemented	B
Object Category	B	Value type	Text	Fimpl	
Obligation	O	Data Constraint	None	Bimpl	
Repeatable	NR	Attribute of	MXFvideo	SIP	
Definition					
Notes					
Values allowed	PAL, NTSC, SECAM, MAC, HD, Component				
UsageNotes	baton SD: log				

Premis_v3	**1.05.7.2.08**	Name	**signalFormat**	Implemented	I
Object Category	FB	Value type	Text	Fimpl	
Obligation	O	Data Constraint	CV	Bimpl	
Repeatable	NR	Attribute of	MXFvideo	SIP	
Definition	Identify a larger technical system/standard or overarching media architecture under which various media formats exist, e.g., NTSC is a system/standard under which many video formats exist.				
Notes	maybe not needed if everything is PAL? Not used by EBU. Depends on exchange outside Europe. See: http://en.wikipedia.org/wiki/Analog_television#Standardsandhttp://en.wikipedia.org/wiki/Digital_television				
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.2.09**	Name	**colorSpace**	Implemented	B
Object Category	B	Value type	Text	Fimpl	
Obligation	O	Data Constraint	CV	Bimpl	metadata
Repeatable	NR	Attribute of	MXFvideo	SIP	
Definition	A data element that designates the color model of the decompressed image data				
Notes	Commonly called color spaces, these color models are used to render digital still images. Some color models may be pertinent to certain file types (e.g.TIFF) while others are more device dependent or independent (calibrated) color models. If the color space used is not present, enter text description for the one utilized. colorSpace recorded here should be a text description. Though element type=string is technically defined as “one or more characters,” it is not appropriate to record the numeric encoding for colorSpace that may come directly from the image file header. Text descriptors should be used to facilitate transparency of information recorded in this element. A list of the video color channels. (D.Rice); omzetting optisch licht naar digitale kleurcode; in de camera bepaald Value options: WhiteIsZero; BlackIsZero; RGB; PaletteColor; TransparencyMask; CMYK; YCbCr				
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.2.10**	Name	**dataRateMode**	Implemented	B
Object Category	B	Value type	Binary	Fimpl	
Obligation	O	Data Constraint	CV	Bimpl	metadata
Repeatable	NR	Attribute of	MXFvideo	SIP	
Definition	Indicates whether the stream data has been processed to achieve a fixed (constant) or variable bit rate.				
Notes					
Values allowed	Fixed Variable				
UsageNotes					

Premis_v3	**1.05.7.2.11**	Name	**dataRate**	Implemented	B
Object Category	B	Value type	Numeric	Fimpl	
Obligation	O	Data Constraint	None	Bimpl	metadata
Repeatable	NR	Attribute of	MXFvideo	SIP	
Definition	Also known as bit rate; the rate at which data is presented within the codec. Data rate of the compressed data over time expressed in bytes per second.				
Notes					
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.2.12**	Name	**averageBitrate**	Implemented	B
Object Category	B	Value type	Numeric	Fimpl	
Obligation	O	Data Constraint		Bimpl	metadata
Repeatable	NR	Attribute of	MXFvideo	SIP	
Definition	Average bitrate refers to the average amount of data transferred per unit of time. [baton]				
Notes	unit: Mbps				
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.2.13**	Name	**bitsPerSample**	Implemented	B
Object Category	B	Value type	Numeric	Fimpl	
Obligation	O	Data Constraint	CV	Bimpl	metadata
Repeatable	NR	Attribute of	MXFvideo	SIP	
Definition	The size of a digital video/audio sample in bits				
Notes					
Values allowed	8 or 10				
UsageNotes					

Premis_v3	**1.05.7.2.14**	Name	**scanOrder**	Implemented	B
Object Category	B	Value type	Text	Fimpl	
Obligation	O	Data Constraint	CV	Bimpl	header
Repeatable	NR	Attribute of	MXFvideo	SIP	
Definition	Scan order refers to the ordering of pixels in video file. [baton]				
Notes	See: http://www.transcoding.org/transcode?Interlacing				
Values allowed	Top field first Bottom field first				
UsageNotes					

Premis_v3	**1.05.7.2.15**	Name	**motionJerk**	Implemented	B
Object Category	B	Value type		Fimpl	
Obligation	O	Data Constraint		Bimpl	metadata
Repeatable	NR	Attribute of	MXFvideo	SIP	
Definition					
Notes					
Values allowed	FALSE				
UsageNotes					

Premis_v3	**1.05.7.3.01**	Name	**codec**	Implemented	B
Object Category	B	Value type	Text	Fimpl	
Obligation	O	Data Constraint	CV	Bimpl	
Repeatable	NR	Attribute of	MXFaudio	SIP	

Definition	Name of the algorithm or schema used to compress, interpret, or formulate the audio or video data stream
Notes	Ref. PBCore: essenceTrackEncoding. Identifies how the actual information in an instantiation is compressed, interpreted, or formulated using a particular scheme. Identifying the encoding used is beneficial for a number of reasons, including as a way to achieve reversible compression; for the construction of document indices to facilitate searching and access; or for efficient distribution of the information across data networks with differing bandwidths or pipeline capacities. http://pbcore.org/pbcoreinstantiation/instantiationessencetrack/essencetrackencoding/ Examples, see: http://metadataregistry.org/concept/list/vocabulary_id/156.html Ref. AES57-2011 (r2017): audioDataEncoding. The audioDataEncoding element shall be used to indicate the encoding scheme used when encoding occurred for the described audio object. For example, at the time of this writing, the majority of digital audio recordings will have a value of 'PCM'. If the described audio object does not contain digital audio data, then the audioDataEncoding element shall be omitted. Examples: MPEG is a familie of video codecs: MPEG-1, MPEG-2, MPEG-4 are compression algorithms. MPEG format, including MPEG video, MPEG audio and MPEG (video, audio synchronization) of three parts, MP3 (MPEG-3) audio files is a typical application of the MPEG audio, video include MPEG-1, MPEG-2 and MPEG4. MPEG-4 is often used in a 3GP format on mobile devices. H.264 is currently the highest quality video codec available, which means that it can usually look better at the same file size, or the same at smaller file sizes, than other codecs. It's also widely deployed, and most web browsers can play it (either natively, or via a Flash plugin), and so can many mobile devices, like the iPhone and Android. But there are licensing issues to consider.
Values allowed	AES3; DolbyE
UsageNotes	

Premis_v3	**1.05.7.3.02**	Name	**channelCount**	Implemented	B
Object Category	B	Value type	Numeric	Fimpl	
Obligation	O	Data Constraint	Integer	Bimpl	metadata
Repeatable	NR	Attribute of	MXFaudio	SIP	

Definition	Number of audio or video channels, e.g., 1, 2, 4, 5, etc
Notes	
Values allowed	4
UsageNotes	

Premis_v3	**1.05.7.3.03**	Name	**soundField**	Implemented	B
Object Category	B	Value type	Text	Fimpl	
Obligation	O	Data Constraint	CV	Bimpl	metadata
Repeatable	NR	Attribute of	MXFaudio	SIP	
Definition	To describe the audio track configuration. Used to express the arrangement or audio tracks				
Notes	Indicates aural space arrangement of the sound recording, e.g., monaural, stereo, joint stereo, surround sound DTS 5.1, etc.				
Values allowed	stereo', '2+1', 'surround', 'surround (7+1)'				
UsageNotes					

Premis_v3	**1.05.7.3.04**	Name	**soundChannelMap**	Implemented	B
Object Category	B	Value type	Text	Fimpl	
Obligation	O	Data Constraint	Structured form.	Bimpl	metadata
Repeatable	NR	Attribute of	MXFaudio	SIP	
Definition	Information about the channel configuration, e.g., mapping the audio channel to their intended aural position/loudspeakers.				
Notes	Information about the channel configuration.AudioMD: The values represent parseable compound metadata using commas as separators. Value example: 1=left_front, 2=right_front, 3=center, 4=left_				
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.3.05**	Name	**bitsPerSample**	Implemented	B
Object Category	B	Value type	Numeric	Fimpl	
Obligation	O	Data Constraint	CV	Bimpl	metadata
Repeatable	NR	Attribute of	MXFaudio	SIP	
Definition					
Notes					
Values allowed	16, 20				
UsageNotes					

Premis_v3	**1.05.7.3.06**	Name	**dataRate**	Implemented	B
Object Category	B	Value type	Numeric	Fimpl	
Obligation	O	Data Constraint	integer	Bimpl	metadata
Repeatable	NR	Attribute of	MXFaudio	SIP	
Definition					
Notes					
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.3.07**	Name	**samplingFrequency**	Implemented	B
Object Category	B	Value type	Numeric	Fimpl	
Obligation	O	Data Constraint	Integer	Bimpl	metadata
Repeatable	NR	Attribute of	MXFaudio	SIP	
Definition	For a media item (specifically audio), the descriptor essenceTrackSamplingRate measures How Often data is sampled when information is digitized. For a digital audio signal, the sampling rate is measured in kilohertz and generally the higher the sampling r				
Notes	Expressed in Khz.				
Values allowed	48000 Hz				
UsageNotes					

Premis_v3	**1.05.7.3.08**	Name	**phaseMismatch**	Implemented	B
Object Category	B	Value type		Fimpl	
Obligation	O	Data Constraint		Bimpl	metadata
Repeatable	NR	Attribute of	MXFaudio	SIP	
Definition	Detects the audio phase mismatch between the left and right channel.				
Notes					
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.3.09.1**	Name	**shortTermLoudness**	Implemented	B
Object Category	B	Value type		Fimpl	
Obligation	O	Data Constraint		Bimpl	metadata
Repeatable	NR	Attribute of	MXFaudio	SIP	
Definition					
Notes					
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.3.09.2**	Name	**momentaryLoudness**	Implemented	B
Object Category	B	Value type		Fimpl	
Obligation	O	Data Constraint		Bimpl	metadata
Repeatable	NR	Attribute of	MXFaudio	SIP	
Definition					
Notes					
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.3.09.3**	Name	**programLoudness**	Implemented	B
Object Category	B	Value type		Fimpl	
Obligation	O	Data Constraint		Bimpl	metadata
Repeatable	NR	Attribute of	MXFaudio	SIP	
Definition					
Notes					
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.3.09.4**	Name	**loudnessRange**	Implemented	B
Object Category	B	Value type		Fimpl	
Obligation	O	Data Constraint		Bimpl	metadata
Repeatable	NR	Attribute of	MXFaudio	SIP	
Definition					
Notes					
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.3.10**	Name	**jitterNoise**	Implemented	B
Object Category	B	Value type		Fimpl	
Obligation	O	Data Constraint		Bimpl	metadata
Repeatable	NR	Attribute of	MXFaudio	SIP	
Definition	Jitter noise is a kind of distortion in an audio signal. Jitter noise occurs when silent frames of very small duration are introduced within a dialogue or sound waves.				
Notes					
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.3.11**	Name	**audioClipping**	Implemented	B
Object Category	B	Value type		Fimpl	
Obligation	O	Data Constraint		Bimpl	metadata
Repeatable	NR	Attribute of	MXFaudio	SIP	
Definition					
Notes	Overmodulation				
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.4.01**	Name	**codec**	Implemented	B
Object Category	B	Value type	Text	Fimpl	
Obligation	O	Data Constraint	CV	Bimpl	
Repeatable	NR	Attribute of	WAV	SIP	
Definition	Name of the algorithm or schema used to compress, interpret, or formulate the audio or video data stream				
Notes	Ref. AES57-2011 (r2017): audioDataEncoding. The audioDataEncoding element shall be used to indicate the encoding scheme used when encoding occurred for the described audio object. For example, at the time of this writing, the majority of digital audio recordings will have a value of 'PCM'. If the described audio object does not contain digital audio data, then the audioDataEncoding element shall be omitted. Examples, see: http://metadataregistry.org/concept/list/vocabulary_id/156.html				
Values allowed	PCM (Pulse Code Modulatie)				
UsageNotes					

Premis_v3	**1.05.7.4.02**	Name	**dataSign**	Implemented	B
Object Category	B	Value type	Binary	Fimpl	
Obligation	O	Data Constraint		Bimpl	header
Repeatable	NR	Attribute of	WAV	SIP	
Definition					
Notes	DataSign is 0 if the image data is unsigned and 1 if the data is signed. Image data is normally stored using unsigned values				
Values allowed	0 1				
UsageNotes					

Premis_v3	**1.05.7.4.03**	Name	**channelCount**	Implemented	B
Object Category	B	Value type		Fimpl	
Obligation	O	Data Constraint		Bimpl	metadata
Repeatable	NR	Attribute of	WAV	SIP	
Definition					
Notes					
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.4.04**	Name	**dataRate**	Implemented	B
Object Category	B	Value type		Fimpl	
Obligation	O	Data Constraint		Bimpl	metadata
Repeatable	NR	Attribute of	WAV	SIP	
Definition					
Notes					
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.4.05**	Name	**samplingFrequency**	Implemented	B
Object Category	B	Value type		Fimpl	
Obligation	O	Data Constraint		Bimpl	metadata
Repeatable	NR	Attribute of	WAV	SIP	
Definition					
Notes					
Values allowed	48.0 Khz				
UsageNotes					

Premis_v3	**1.05.7.4.06**	Name	**bitsPerSample**	Implemented	B
Object Category	B	Value type	Numeric	Fimpl	
Obligation	O	Data Constraint	CV	Bimpl	metadata
Repeatable	NR	Attribute of	WAV	SIP	
Definition	Indicates how many bytes are used to represent a single audio sample.				
Notes	= wordSize				
Values allowed	16				
UsageNotes					

Premis_v3	**1.05.7.5.02**	Name	**genericSize**	Implemented	F
Object Category	FB	Value type		Fimpl	header
Obligation	O	Data Constraint		Bimpl	
Repeatable	NR	Attribute of	DPX	SIP	F
Definition	size van de generic section header				
Notes					
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.5.03**	Name	**industrySize**	Implemented	F
Object Category	FB	Value type		Fimpl	header
Obligation	O	Data Constraint		Bimpl	
Repeatable	NR	Attribute of	DPX	SIP	F
Definition					
Notes					
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.5.04**	Name	**userDefinedSize**	Implemented	F
Object Category	FB	Value type		Fimpl	header
Obligation	O	Data Constraint		Bimpl	
Repeatable	NR	Attribute of	DPX	SIP	F
Definition					
Notes					
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.5.05**	Name	**imageElements**	Implemented	F
Object Category	FB	Value type		Fimpl	header
Obligation	O	Data Constraint	integer	Bimpl	
Repeatable	NR	Attribute of	DPX	SIP	F
Definition					
Notes					
Values allowed	1				
UsageNotes					

Premis_v3	**1.05.7.5.07**	Name	**dataSign**	Implemented	B
Object Category	B	Value type		Fimpl	
Obligation	O	Data Constraint		Bimpl	header
Repeatable	NR	Attribute of	DPX	SIP	
Definition					
Notes	DataSign is 0 if the image data is unsigned and 1 if the data is signed. Image data is normally stored using unsigned values				
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.5.08**	Name	**bitsPerSample**	Implemented	B
Object Category	B	Value type		Fimpl	
Obligation	O	Data Constraint	CV	Bimpl	metadata
Repeatable	NR	Attribute of	DPX	SIP	
Definition	BitSize specifies the number of bits in each component of the image element.				
Notes	Valid values are 1, 8, 10, 12, 16, 32, and 64				
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.5.09**	Name	**colorSpace**	Implemented	B
Object Category	B	Value type		Fimpl	
Obligation	O	Data Constraint		Bimpl	metadata
Repeatable	NR	Attribute of	DPX	SIP	
Definition					
Notes	Single- or multi-component element. Type of component stored by the element and its pixel-packing order. There are 256 possible values to this feld. value 50 is RGB Value 6 is Luminance (Y-only).				
Values allowed	6 (Y); 50 (RGB)				
UsageNotes					

Premis_v3	**1.05.7.5.10**	Name	**scanOrder**	Implemented	B
Object Category	B	Value type		Fimpl	
Obligation	O	Data Constraint		Bimpl	header
Repeatable	NR	Attribute of	DPX	SIP	
Definition					
Notes	Orientation: Orientation specifies the proper direction of the image on the display.				
Values allowed	0: (Left to right, Top to bottom)				
UsageNotes					

Premis_v3	**1.05.7.5.11**	Name	**colorMetric**	Implemented	B
Object Category	B	Value type		Fimpl	
Obligation	O	Data Constraint	CV	Bimpl	header
Repeatable	NR	Attribute of	DPX	SIP	
Definition					
Notes	2=not applicable (Colorimetric defines the color reference primaries for color additive systems, or color responses for color subtractive systems.)				
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.5.12**	Name	**lowDataCode**	Implemented	B
Object Category	B	Value type		Fimpl	
Obligation	O	Data Constraint		Bimpl	header
Repeatable	NR	Attribute of	DPX	SIP	
Definition	LowData defines the minimum expected color value				
Notes					
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.5.13**	Name	**highDataCode**	Implemented	B
Object Category	B	Value type		Fimpl	
Obligation	O	Data Constraint		Bimpl	header
Repeatable	NR	Attribute of	DPX	SIP	
Definition	HighData defines the maximum expected color value				
Notes					
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.5.14**	Name	**lowQuality**	Implemented	B
Object Category	B	Value type		Fimpl	
Obligation	O	Data Constraint		Bimpl	header
Repeatable	NR	Attribute of	DPX	SIP	
Definition	LowQuantity defines the reference for the low quantity value specified in the LowData field. This reference value should be considered the lowest possible value and is typically 0				
Notes					
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.5.15**	Name	**highQuantity**	Implemented	B
Object Category	B	Value type		Fimpl	
Obligation	O	Data Constraint		Bimpl	header
Repeatable	NR	Attribute of	DPX	SIP	
Definition	HighQuantity defines the reference for the high-quantity value specified in the HighData field.				
Notes	This reference value should be considered the highest possible value, and is typically the largest value that can be stored in a component of the specified size (for example, 256 for 8-bit components)				
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.5.16**	Name	**dirtMattePresence**	Implemented	B
Object Category	B	Value type		Fimpl	
Obligation	O	Data Constraint		Bimpl	header
Repeatable	NR	Attribute of	DPX	SIP	
Definition					
Notes	Photographic film is mostly transparent to infrared radiation (no matter what the visible image contains) but dust and scratches aren't, so they show up in the IR channel. This information can then be used to automatically remove the appearance of dust and scratches in the visible channels and replace them with something similar to their surroundings. In dit veld wordt met 'yes' of 'no' aangegeven voor het gebruik van (2?) extra kanalen voor infrarood scanning. Dit kan gezien worden als een digitale variant van de ‘wetgate’ scanmethode, waarbij tijdens het scannen al kleine beschadigingen worden gecorrigeerd				
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.5.17**	Name	**transferCharacteristic**	Implemented	B
Object Category	B	Value type		Fimpl	
Obligation	O	Data Constraint		Bimpl	header
Repeatable	NR	Attribute of	DPX	SIP	
Definition					
Notes	2=lineair (Transfer describes the transfer characteristics used to transform the data from a linear original)				
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.5.18**	Name	**packing**	Implemented	B
Object Category	B	Value type		Fimpl	
Obligation	O	Data Constraint		Bimpl	header
Repeatable	NR	Attribute of	DPX	SIP	
Definition					
Notes	2=Filled to 32-bit-words, method B				
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.5.20**	Name	**end-of-linePadding**	Implemented	B
Object Category	B	Value type		Fimpl	
Obligation	O	Data Constraint		Bimpl	header
Repeatable	NR	Attribute of	DPX	SIP	
Definition	Number of padded bytes at the end of each image line (default = 0, no padding).				
Notes					
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.5.21**	Name	**end-of-ImagePadding**	Implemented	B
Object Category	B	Value type		Fimpl	
Obligation	O	Data Constraint		Bimpl	header
Repeatable	NR	Attribute of	DPX	SIP	
Definition	Number of padded bytes at the end of each image element (default = 0, no padding).				
Notes					
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.5.22**	Name	**steadinessX-Vector**	Implemented	B
Object Category	B	Value type		Fimpl	
Obligation	O	Data Constraint		Bimpl	header
Repeatable	NR	Attribute of	DPX	SIP	
Definition					
Notes					
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.5.23**	Name	**steadinessY-Vector**	Implemented	B
Object Category	B	Value type		Fimpl	
Obligation	O	Data Constraint		Bimpl	header
Repeatable	NR	Attribute of	DPX	SIP	
Definition					
Notes					
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.5.24**	Name	**rotationAngle**	Implemented	B
Object Category	B	Value type		Fimpl	
Obligation	O	Data Constraint		Bimpl	header
Repeatable	NR	Attribute of	DPX	SIP	
Definition					
Notes					
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.6.01**	Name	**codec**	Implemented	B
Object Category	B	Value type	Text	Fimpl	
Obligation	O	Data Constraint	CV	Bimpl	metadata
Repeatable	NR	Attribute of	Tiff	SIP	
Definition	Name of the algorithm or schema used to compress, interpret, or formulate the data.				
Notes	Examples, see: http://metadataregistry.org/concept/list/vocabulary_id/156.html				
Values allowed	PackBytes 8-bit				
UsageNotes					

Premis_v3	**1.05.7.6.02**	Name	**orientation**	Implemented	F
Object Category	F	Value type	Text	Fimpl	metadata
Obligation	O	Data Constraint	CV	Bimpl	
Repeatable	NR	Attribute of	Tiff	SIP	F
Definition	a data element that designates the orientation of the image, with respect to the placement of its rows (7.1.1 imageWidth) and columns (7.1.2 imageHeight), as it was saved to disk				
Notes	1 = normal* 2 = normal, image flipped 3 = normal, rotated 180° 4 = normal, image flipped, rotated 180° 5 = normal, image flipped, rotated cw 90° 6 = normal, rotated ccw 90° 7 = normal, image flipped, rotated ccw 90° 8 = normal, rotated cw 90° 9 = unknown NOTE: “cw” = clockwise; “ccw”= counterclockwise				
Values allowed	Horizontal (normal) …				
UsageNotes					

Premis_v3	**1.05.7.6.03**	Name	**compression**	Implemented	F
Object Category	F	Value type		Fimpl	metadata
Obligation	O	Data Constraint		Bimpl	
Repeatable	NR	Attribute of	Tiff	SIP	F
Definition					
Notes					
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.6.04**	Name	**colorSpace**	Implemented	B
Object Category	B	Value type		Fimpl	
Obligation	O	Data Constraint	CV	Bimpl	metadata
Repeatable	NR	Attribute of	Tiff	SIP	B
Definition					
Notes	Value options: WhiteIsZero; BlackIsZero; RGB; PaletteColor; TransparencyMask; CMYK; YCbCr zie awaresystems.be				
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.6.05**	Name	**profileName**	Implemented	B
Object Category	B	Value type		Fimpl	
Obligation	O	Data Constraint		Bimpl	metadata
Repeatable	NR	Attribute of	Tiff	SIP	B
Definition					
Notes					
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.6.06**	Name	**profileVersion**	Implemented	B
Object Category	B	Value type		Fimpl	
Obligation	O	Data Constraint		Bimpl	metadata
Repeatable	NR	Attribute of	Tiff	SIP	B
Definition					
Notes					
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.6.07**	Name	**samplesPerPixel**	Implemented	B
Object Category	B	Value type	Numeric	Fimpl	
Obligation	O	Data Constraint	Positive integer	Bimpl	metadata
Repeatable	NR	Attribute of	Tiff	SIP	B
Definition	a data element that designates the number of color components per pixel				
Notes	Examples reflect those values encountered in imaging encodings commonly in use by the cultural heritage community at the time of writing. Should other encoding be used at a later date, the appropriate number of color components per pixel should be recorded in this field.				
Values allowed	1 3 4				
UsageNotes					

Premis_v3	**1.05.7.6.08**	Name	**bitsPerSample**	Implemented	B
Object Category	B	Value type	Numeric	Fimpl	
Obligation	O	Data Constraint	Positive integer	Bimpl	metadata
Repeatable	NR	Attribute of	Tiff	SIP	B
Definition	a data element that designates the number of bits per component for each pixel				
Notes	This data element provides N values depending upon samplesPerPixel present. This data element is used to describe the number of bits for each sample (or channel), expressed in the same order given in colorSpace and containing the same number of elements as described in samplesPerPixel. bitsPerSampleValue may be different for each sample.				
Values allowed	1 4 8 8,8,8 8,2,2 16,16,16 8,8,8,8				
UsageNotes					

Premis_v3	**1.05.7.6.09**	Name	**samplingFrequencyPlane**	Implemented	B
Object Category	B	Value type	Numeric	Fimpl	
Obligation	O	Data Constraint	Positive integer	Bimpl	metadata
Repeatable	NR	Attribute of	Tiff	SIP	B

Definition	a data element that designates the reference plane location for which xSamplingFreq and ySamplingFreq are designated
Notes	This element is meant to remove the ambiguity with respect to xSamplingFrequency and ySamplingFrequency for the scanning of film intermediates. It can be used to deduce sourceXDimension or sourceYDimension in conjunction with imageWidth or imageHeight. Value = 1 is consistent with DIG35, B.3.2.4, and is an indication of the physical sensor sampling frequency. It is of limited use without knowledge of the optical magnification between sensor and imaged object. Value = 2 would be most common for direct scanning of source objects. If “object plane” is the same as “source object plane”, this value is used. Value = 3 is commonly used for film intermediates such as microfilm where xSamplingFrequency and ySamplingFrequency are often referred to at the source object plane rather than the object film plane. 1 (camera/scanner focal plane) is difficult to determine without knowledge of the physical sensor sampling frequency. 2 (object plane) is the default value and is used when the source and digital object have the same object plane. 3 (source object plane) is frequently used for intermediaries, such as microfilm where the sampling frequencies for x and y would be for the source object rather than the film intermediary.
Values allowed	1=camera/scanner focal plane 2=object plane 3=source object plane
UsageNotes	System (accurate output of file to print/film [size]) Manager (one of the quantitative metrics to evaluate image quality)

Premis_v3	**1.05.7.6.10**	Name	**samplingFrequencyUnit**	Implemented	B
Object Category	B	Value type	Numeric	Fimpl	
Obligation	O	Data Constraint	Positive integer	Bimpl	metadata
Repeatable	NR	Attribute of	Tiff	SIP	B
Definition	a data element that specifies the unit of measurement in which xSamplingFreq and ySamplingFreq are designated				
Notes	Value = 1 is used for images that may have a non-square aspect ratio, but no meaningful absolute dimensions. In copy work, it should also be used when source measurements are unknown (e.g., when a photo-intermediate such as 35 mm negative film is the source). Enumerated values are drawn from DIG35 and the TIFF/EP standards.				
Values allowed	1=no absolute unit of measurement 2=inch 3=centimeter				
UsageNotes	When samplingFrequencyUnit = 2 and sourceXDimensionValue is given in inches, the xSamplingFrequency may be calculated as follows: xSamplingFrequency = imageHeight/sourceXDimensionValue When samplingFrequencyUnit = 2 and sourceYDimensionValue is given in inches, the ySamplingFrequency may be calculated as follows: ySamplingFrequency = imageWidth/sourceYDimensionValue The same formulas may be used when samplingFrequencyUnit = 3 and source dimensions are given in centimeters. dpi (inch); DPI is een verwarrend begrip. Het betekent DOTS PER INCH als het gaat over het inkten van prints. Maar het wordt ook gebruikt voor PIXELS PER INCH, eigenlijk moet je dan spreken over PPI.				

Premis_v3	**1.05.7.6.11**	Name	**SamplingFrequency**	Implemented	B
Object Category	B	Value type		Fimpl	
Obligation	O	Data Constraint	Container	Bimpl	
Repeatable	NR	Attribute of	Tiff	SIP	
Definition	container				
Notes	With fields ySamplingFrequency and samplingFrequencyUnit, xSamplingFrequency specifies the dimensions (scale) of the printed image. http://www.dpiphoto.eu/dpi2.htm				
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.6.11.1**	Name	**xSamplingFrequency**	Implemented	B
Object Category	B	Value type	Numeric	Fimpl	
Obligation	O	Data Constraint	Positive integer	Bimpl	metadata
Repeatable	NR	Attribute of	Tiff	SIP	B
Definition	a data element that specifies the number of pixels per samplingFrequencyUnit in the image width				
Notes	With fields ySamplingFrequency and samplingFrequencyUnit, xSamplingFrequency specifies the dimensions (scale) of the printed image.				
Values allowed					
UsageNotes					

Premis_v3	**1.05.7.6.11.2**	Name	**ySamplingFrequency**	Implemented	B
Object Category	B	Value type	Numeric	Fimpl	
Obligation	O	Data Constraint	Positive integer	Bimpl	metadata
Repeatable	NR	Attribute of	Tiff	SIP	B
Definition	a data element that specifies the number of pixels per samplingFrequencyUnit in the image length				
Notes	With fields xSamplingFrequency and samplingFrequencyUnit, ySamplingFrequency specifies the dimensions (scale) of the printed image.				
Values allowed					
UsageNotes					

Premis_v3	**1.06**	Name	**originalName**	Implemented	F
Object Category	IRF	Value type	Text	Fimpl	metadata
Obligation	O	Data Constraint	None	Bimpl	
Repeatable	NR	Attribute of		SIP	F
Definition	The name of the object as submitted to or harvested by the repository, before any renaming by the repository.				
Notes	This is the name of the object as designated in the SubmissionInformation Package (SIP).More detail in PREMIS.				
Values allowed					
UsageNotes					

Premis_v3	**1.07**	Name	**Storage**	Implemented	FB
Object Category	RFB	Value type		Fimpl	
Obligation	O	Data Constraint	Container	Bimpl	
Repeatable	R	Attribute of		SIP	
Definition	Information about how and where an entity can be found. For bitstreams this means the location within a file. For files this means the physical location in one or more storage systems				
Notes	For digital representations and files, the storage container should be repeated if there are two or more copies that are identical bit-wise and managed as a unit, except for the medium on which they are stored. To use this repetition, the copies must have a single objectIdentifier and be managed as a single object by the repository. For bitstreams, the storage container could be repeated if there is more than one way of getting to the start of the bitstream within a file (e.g., byte offset from start or byte offset from end).				
Values allowed					
UsageNotes	Note that many storage systems (e.g., hierarchical storage management systems, cloud storage providers etc.) will provide only a single reference to an object even though it may store multiple copies. >> This is also true for NISV				

Premis_v3	**1.07.1**	Name	**contentLocation**	Implemented	FB
Object Category	RFB	Value type		Fimpl	
Obligation	O	Data Constraint	Container	Bimpl	
Repeatable	NR	Attribute of		SIP	
Definition	Information needed to retrieve a physical item from its physical storage location or a file from the storage system, or to access a bitstream within a file.				
Notes	If the preservation repository uses the objectIdentifier as a handle for retrieving data, contentLocation is implicit and does not need to be recorded.				
Values allowed					
UsageNotes					

Premis_v3	**1.07.1.1**	Name	**contentLocationType**	Implemented	FB
Object Category	RFB	Value type	Text	Fimpl	metadata
Obligation	M	Data Constraint	CV	Bimpl	header
Repeatable	NR	Attribute of		SIP	
Definition	The means of referencing the location of the content.				
Notes	To understand the meaning of the value it is necessary to know what location scheme is used. Example values for File: URI; hdl; NTFS; EXT3. Example value for B: byte offset.				
Values allowed					
UsageNotes					

Premis_v3	**1.07.1.2**	Name	**contentLocationValue**	Implemented	FB
Object Category	RFB	Value type	Text	Fimpl	metadata
Obligation	M	Data Constraint	None	Bimpl	header
Repeatable	NR	Attribute of		SIP	
Definition	The reference to the location of the content used by the storage system.				
Notes	This could be a fully qualified path and filename, or the information used by a resolution system (e.g., a handle), or the native information used by a storage management system. For a bitstream or filestream, this would probably be the reference point and offset of the starting position of the bitstream within a file. It is up to the repository to determine the level of granularity that should be recorded.				
Values allowed					
UsageNotes					

Premis_v3	**1.07.2**	Name	**storageMedium**	Implemented	F
Object Category	RFB	Value type	Text	Fimpl	metadata
Obligation	O	Data Constraint	CV	Bimpl	
Repeatable	NR	Attribute of		SIP	
Definition	The physical medium on which the object is stored.				
Notes	The repository needs to know the medium on which an object is stored in order to know how and when to do media refreshment and media migration. Example values: magnetic tape; hard disk; CD-ROM; DVD.PBCore: http://metadataregistry.org/concept/list/vocabulary_id/145.htmlEBU: http://www.ebu.ch/metadata/cs/web/ebu_StorageMediaTypeCode_p.xml.htm				
Values allowed					
UsageNotes					