IPTC Standard

Photo Metadata
(July 2010)

IPTC Core
Specification Version 1.1

IPTC Extension
Specification Version 1.1

Document Revision 1

Copyrights

Acknowledgments

This document is the result of a team effort by members of the International Press Telecommunications Council, with input and assistance from other contributors.

The effort to develop and maintain the IPTC Photo Metadata schemas was lead by Harald Löffler (Ifra) and Michael Steidl (IPTC) and these persons contributed (ordered by surname):
Karl Csoknyay (Keystone Switzerland), Annette Feldman (AP), Jan Leidicke (BVPA), Cindy Lewis (PLUS), Andrea de Polo (CEPIC/Alinari), David Riecks (PLUS), Sarah Saunders (BAPLA/CEPIC), Jeff Sedlik (PLUS), Klaus Sprick (IPTC), Staffan Teste (CEPIC), Andy Williams (Ifra).

About the Standard

IPTC Core Specification Version History

Version	Issue Date	Approved by	Remarks
1.0	2004-10-08	IPTC Standards Committee	
1.1	2008-07-02	IPTC Standards Committee	

IPTC Extension Specification Version History

Version	Issue Date	Approved by	Remarks
1.0	2008-07-02	IPTC Standards Committee	
1.1	2009-06-17	IPTC Standards Committee	

Document Revision History

Revision	Issue Date	Author/revised by	Remarks
1	2010-07-08	Photo Md WG/M Steidl	

About this Document

- This document specifies metadata properties intended to be used primarily, but not exclusively with photos.
- This document is a specification that may be revised to fix errata. Any changes will be indicated by a new document revision number.
  Any changes to the specification will be reflected by a change of the version of the standard.
- This specification document will be supplemented by guidelines for end users and implementers of this specification.

Status of this Document

This document is under the governance of the IPTC Photo Metadata Working Group of the IPTC Standards Committee.

This is a specification document endorsed by IPTC members and may be updated, replaced or made obsolete by other documents at any time.

A public version of this specification document is available at:

http://www.iptc.org/std/photometadata/specification

and of related IPTC documents at

http://www.iptc.org/std/photometadata/documentation

Public comments should be sent to the forum and mailing list at:

http://tech.groups.yahoo.com/group/iptc-photometadata

A page with all errata not covered by the latest version of the Photo Metadata specifications (July 2010, document revision 1) is available at:

http://www.iptc.org/std/photometadata/specification/PhotoMetadataErrata.html

License Agreement

This document is issued under the
Non-Exclusive License Agreement for International Press Telecommunications Council Specifications and Related Documentation

IMPORTANT: International Press Telecommunications Council (IPTC) standard specifications for news (the Specifications) and supporting software, documentation, technical reports, web sites and other material related to the Specifications (the Materials) including the document accompanying this license (the Document), whether in a paper or electronic format, are made available to you subject to the terms stated below. By obtaining, using and/or copying the Specifications or Materials, you (the licensee) agree that you have read, understood, and will comply with the following terms and conditions.

1. The Specifications and Materials are licensed for use only on the condition that you agree to be bound by the terms of this license. Subject to this and other licensing requirements contained herein, you may, on a non-exclusive basis, use the Specifications and Materials.

2. The IPTC openly provides the Specifications and Materials for voluntary use by individuals, partnerships, companies, corporations, organizations and any other entity for use at the entity's own risk. This disclaimer, license and release is intended to apply to the IPTC, its officers, directors, agents, representatives, members, contributors, affiliates, contractors, or co-venturers acting jointly or severally.

3. The Document and translations thereof may be copied and furnished to others, and derivative works that comment on or otherwise explain it or assist in its implementation may be prepared, copied, published and distributed, in whole or in part, without restriction of any kind, provided that the copyright and license notices and references to the IPTC appearing in the Document and the terms of this Specifications License Agreement are included on all such copies and derivative works. Further, upon the receipt of written permission from the IPTC, the Document may be modified for the purpose of developing applications that use IPTC Specifications or as required to translate the Document into languages other than English.

4. Any use, duplication, distribution, or exploitation of the Document and Specifications and Materials in any manner is at your own risk.

5. NO WARRANTY, EXPRESSED OR IMPLIED, IS MADE REGARDING THE ACCURACY, ADEQUACY, COMPLETENESS, LEGALITY, RELIABILITY OR USEFULNESS OF ANY INFORMATION CONTAINED IN THE DOCUMENT OR IN ANY SPECIFICATION OR OTHER PRODUCT OR SERVICE PRODUCED OR SPONSORED BY THE IPTC. THE DOCUMENT AND THE INFORMATION CONTAINED HEREIN AND INCLUDED IN ANY SPECIFICATION OR OTHER PRODUCT OR SERVICE OF THE IPTC IS PROVIDED ON AN "AS IS" BASIS. THE IPTC DISCLAIMS ALL WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY ACTUAL OR ASSERTED WARRANTY OF NON-INFRINGEMENT OF PROPRIETARY RIGHTS, MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE. NEITHER THE IPTC NOR ITS CONTRIBUTORS SHALL BE HELD LIABLE FOR ANY IMPROPER OR INCORRECT USE OF INFORMATION. NEITHER THE IPTC NOR ITS CONTRIBUTORS ASSUME ANY RESPONSIBILITY FOR ANYONE'S USE OF INFORMATION PROVIDED BY THE IPTC. IN NO EVENT SHALL THE IPTC OR ITS CONTRIBUTORS BE LIABLE TO ANYONE FOR DAMAGES OF ANY KIND, INCLUDING BUT NOT LIMITED TO, COMPENSATORY DAMAGES, LOST PROFITS, LOST DATA OR ANY FORM OF SPECIAL, INCIDENTAL, INDIRECT, CONSEQUENTIAL OR PUNITIVE DAMAGES OF ANY KIND WHETHER BASED ON BREACH OF CONTRACT OR WARRANTY, TORT, PRODUCT LIABILITY OR OTHERWISE.

6. The IPTC takes no position regarding the validity or scope of any Intellectual Property or other rights that might be claimed to pertain to the implementation or use of the technology described in the Document or the extent to which any license under such rights might or might not be available. The IPTC does not represent that it has made any effort to identify any such rights. Copies of claims of rights made available for publication, assurances of licenses to be made available, or the result of an attempt made to obtain a general license or permission for the use of such proprietary rights by implementers or users of the Specifications and Materials, can be obtained from the Managing Director of the IPTC.

7. By using the Specifications and Materials including the Document in any manner or for any purpose, you release the IPTC from all liabilities, claims, causes of action, allegations, losses, injuries, damages, or detriments of any nature arising from or relating to the use of the Specifications, Materials or any portion thereof. You further agree not to file a lawsuit, make a claim, or take any other formal or informal legal action against the IPTC, resulting from your acquisition, use, duplication, distribution, or exploitation of the Specifications, Materials or any portion thereof. Finally, you hereby agree that the IPTC is not liable for any direct, indirect, special or consequential damages

arising from or relating to your acquisition, use, duplication, distribution, or exploitation of the Specifications, Materials or any portion thereof.

8. Specifications and Materials may be downloaded or copied provided that ALL copies retain the ownership, copyright and license notices.

9. Materials may not be edited, modified, or presented in a context that creates a misleading or false impression or statement as to the positions, actions, or statements of the IPTC.

10. The name and trademarks of the IPTC may not be used in advertising, publicity, or in relation to products or services and their names without the specific, written prior permission of the IPTC. Any permitted use of the trademarks of the IPTC, whether registered or not, shall be accompanied by an appropriate mark and attribution, as agreed with the IPTC.

11. Specifications may be extended by both members and non-members to provide additional functionality (Extension Specifications) provided that there is a clear recognition of the IPTC IP and its ownership in the Extension Specifications and the related documentation and provided that the extensions are clearly identified and provided that a perpetual license is granted by the creator of the Extension Specifications for other members and non-members to use the Extension Specifications and to continue extensions of the Extension Specifications. The IPTC does not waive any of its rights in the Specifications and Materials in this context. The Extension Specifications may be considered the intellectual property of their creator. The IPTC expressly disclaims any responsibility for damage caused by an extension to the Specifications.

12. Specifications and Materials may be included in derivative work of both members and non-members provided that there is a clear recognition of the IPTC IP and its ownership in the derivative work and its related documentation. The IPTC does not waive any of its rights in the Specifications and Materials in this context. Derivative work in its entirety may be considered the intellectual property of the creator of the work .The IPTC expressly disclaims any responsibility for damage caused when its IP is used in a derivative context.

13. This Specifications License Agreement is perpetual subject to your conformance to the terms of this Agreement. The IPTC may terminate this Specifications License Agreement immediately upon your breach of this Agreement and, upon such termination you will cease all use, duplication, distribution, and/or exploitation in any manner of the Specifications and Materials.

14. This Specifications License Agreement reflects the entire agreement of the parties regarding the subject matter hereof and supersedes all prior agreements or representations regarding such matters, whether written or oral. To the extent any portion or provision of this Specifications License Agreement is found to be illegal or unenforceable, then the remaining provisions of this Specifications License Agreement will remain in full force and effect and the illegal or unenforceable provision will be construed to give it such effect as it may properly have that is consistent with the intentions of the parties.

15. This Specifications License Agreement may only be modified in writing signed by an authorized representative of the IPTC.

16. This Specifications License Agreement is governed by the law of United Kingdom, as such law is applied to contracts made and fully performed in the United Kingdom. Any disputes arising from or relating to this Specifications License Agreement will be resolved in the courts of the United Kingdom. You consent to the jurisdiction of such courts over you and covenant not to assert before such courts any objection to proceeding in such forums.

IF YOU DO NOT AGREE TO THESE TERMS YOU MUST CEASE ALL USE OF THE SPECIFICATIONS AND MATERIALS NOW.
IF YOU HAVE ANY QUESTIONS ABOUT THESE TERMS, PLEASE CONTACT THE MANAGING DIRECTOR OF THE INTERNATIONAL PRESS TELECOMMUNICATION COUNCIL.
AS OF THE DATE OF THIS REVISION OF THIS SPECIFICATIONS LICENSE AGREEMENT YOU MAY CONTACT THE IPTC at http://www.iptc.org .

License agreement version of: 30 January 2006

Table of Contents

Introduction to IPTC Photo Metadata

Overview

IPTC Photo Metadata provides data about photographs and the values can be processed by software. Each individual metadata entity is called a property and they are grouped into Administrative, Descriptive and Rights Related properties.

IPTC Photo Metadata properties have photo specific definitions that are widely supported by imaging software.

IPTC Photo Metadata aligns with other IPTC metadata standards that are made for media items of any media-type. Thus they integrate with media-type agnostic digital asset management systems.

The **IPTC Photo Metadata (July 2010)** specification is split into two different schemas:
- The **IPTC Core 1.1 schema** which refers back to properties from the IPTC "Information Interchange Model" (IIM) standard [IPTC IIM].
- The **IPTC Extension 1.1 schema** extends and complements the IPTC Core schema by a set of more granular properties and further specialised rights-related properties from the PLUS metadata schema [PLUS].

This allows users to decide whether ...
- ... to use only the IPTC Core schema that has a higher backward compatibility, but less refined metadata
- ... or to use the IPTC Core and the IPTC Extension schema with refined and specialised metadata, but restricted backward compatibility.

This document provides the latest specifications for both schemas.

Technical Metadata

Digital cameras capture metadata at the time the image is taken reflecting technical characteristics. Such metadata may include, but is not limited to, generic camera metadata, camera manufacturer-specific metadata, ICC profiles and positioning data. Standards for these metadata are not subject to IPTC Standards, but are under the control of the camera manufacturers, their associations (such as CIPA) and others. Because the IPTC acknowledges these technical metadata standards of other bodies and does not wish to duplicate existing metadata properties, the IPTC Photo Metadata specification does not include any technical metadata.

Beyond that the IPTC Photo Metadata Working Group has studied several photo business processes in the industry and discussed the requirements for the type of technical metadata and their handling in photo workflows. As a result, recommendations for persistent Technical Photo Metadata were formulated and are appended to this document as Addendum 1, but are not part of this standard. The recommendations are about the handling of metadata when photos are stored and processed and may provide useful guidelines for the design of a workflow.

History

In1990, the IPTC developed its "Information Interchange Model" (IIM) metadata property standard for exchanging news that was, by design, media-type agnostic and thus encouraged users to apply it to photos. A few years later, the software company Adobe Systems Inc. adopted a subset of IIM properties for its imaging software Photoshop and developed a metadata storage technology name "Image Resource Block" to embed the metadata properties in a header section of the image files. From that moment on, millions of photographs were annotated using IIM metadata.
In September 2001, Adobe introduced its new technical metadata framework "Extensible Metadata Platform (XMP)" [Adobe XMP] that will make the "Image Resource Blocks" sooner or later obsolete. The XML-based XMP technology is much more flexible and can deal better with globalisation requirements.
In 2004, the IPTC and Adobe jointly developed the "IPTC Core Schema for XMP" which is actually a redefinition of the IIM properties in the new XMP environment; only a few properties were added.
In 2007, the IPTC collected requirements from different sectors of the professional photography business – with a focus on news photography and stock photography – and published these requirements in its Photo Metadata White Paper 2007 [PhMdWP2007]. After receiving wide assent to this paper, the IPTC developed specifications for the "IPTC Extension Schema" and slightly revised the IPTC Core specifications. Both specifications are released in one document as "IPTC Photo Metadata" which was last updated in July 2010.

Photo Metadata specification notation

The specification template

This specification document provides for each photo metadata property a full specification consisting of:

- A generic specification of its name, semantics, requirements and text to be used with the user interface of a software implementing this property
- A technical implementation specific for Adobe's XMP technology [Adobe XMP]
- A technical implementation specific to IPTC's G2-Standards. [IPTC G2-Standards]

The specifications of a Photo Metadata property are notated by a generic table. Please find below the template table with explanations for each row in the right column:

Generic Specification	**A generic specification of the property which is agnostic to any implementation technology.** Property Group (in blue): **descr**iptive / **admin**istrative / **rights rel**ated / a data **type** definition This property grouping is not normative, only an indicator of general semantics
Name	The reference name of the property used by this specification This name shall never be translated
Definition	A media-type agnostic definition of the semantics of this property that may be translated for localization.
Photo Definition	A photo-specific definition of the semantics of this property that may be translated for localization.
Photo Help Text	A help text for this property which may be displayed by a generic help system of the user interface, and should be translated for localization.
User Note(s)	Any notes that apply to the end user of this property, should be translated for localization.
Implementation Note(s)	Any notes that apply to parties implementing this property using any technology.
Field label/title	Text appearing next to the entry field in the user interface, that should be translated for localization.
Cardinality	How often this property may appear in a set of Photo Metadata for an image. 1 = is mandatory, 0..1 = one occurrence is optional, 1..unbounded = multiple occurrences are optional
Basic data type	A recommended basic data type
Required CV	The identifier for a controlled vocabulary that must be used with this property.
Spec change history	A note in which version of the specification or, if there was an error in the specification document, in which revision of this specification document a property was changed and how.
XMP implementation	**The implementation specification in the context of the Adobe XMP technology**
XMP namespace	The XMP namespace alias, see section "Names and Identifiers" of IPTC Core and IPTC Extension.
XMP property id	The identifying name of the property
XMP Value Type	The value type as per XMP specifications	**XMP Category**	External/Internal
Implementation note(s)	Any note regarding the XMP-specific implementation
Maps to this IIM property	If this XMP property is mapped to an IIM property its IIM Data Set id and name appears in this row.
XMP/IIM mapping note(s)	Any note on how to access an XMP property for mapping it to the corresponding IIM property.
G2 implementation	**The technical implementation specification for IPTC G2-Standards** If this section is left empty no straightforward mapping is possible or recommended, because of either blurred semantics of a photo property or not having an equivalent G2-property.
Property name (XPath)	The property in G2-Standards which corresponds to this Photo Metadata property, expressed by an XPath for a G2 item.
Property-attribute(s)	Attributes of G2 properties as they should be used.
QCode scheme	The scheme-URI of a required controlled vocabulary.
Implementation note(s)	Any note regarding the G2-specific implementation.

Generic specification notes

The terms Metadata Property and Metadata Structure

The term Metadata Property is used for data about the image content. A metadata property can be made to hold only a single kind of value, or a structure of differ rent values, for which the term Metadata Structure is used.

Examples:

*The metadata property Description is made for only one kind of value, a text string, but may provide this value in different languages. It is important to understand that language translations are NOT a metadata structure.

* The property Artwork or Object in the Image is providing a structure of 6 sub-fields, and is not designed for only a single value.

For a property using a structure, the string "structure" is used in the "Basic data type" cell of its specification table. In this case, check the XMP Value Type cell of the table and refer to the corresponding structure identified in it.

For all structures specified by the IPTC this document includes the specification tables for all members of a structure.

For all structures specified by another standardisation body, in particular by PLUS, the specifications of the structure can only be found in the specification documents (website, PDF document ...) of this body.

(legacy) appended to a property name

This suffix is used if the IPTC Extension provides a better solution to annotate the information about an image than the IPTC Core does. In this case, the IPTC recommends to phase out the use of the (legacy)-marked property and to move towards using the IPTC Extension. See the notes on this matter in the particular specification table.

(DEPRECATED) appended to a property name

This suffix is used for properties which should not be used any longer. A reason for this is given in the spec table of the property and may include a recommendation to use a different property in the future.

Saving metadata values to files

The values of properties may be saved by both the IIM format and the XMP format in a single image file. A guideline on how to synchronise values existing in parallel is available from the Metadata Working Group [MetadataWG]

IPTC Core schema 1.1 specifications

Names and Identifiers

The **XML namespace URI** for the "IPTC Core" versions 1.0 and 1.1 is:
`http://iptc.org/std/Iptc4xmpCore/1.0/xmlns/`

The **preferred XML namespace-prefix** for "IPTC Core" related XMP properties is: **`Iptc4xmpCore`**

The use of this namespace-prefix is not mandatory, but highly recommended for interoperability support.

These **other namespaces** are used in the scope of IPTC Core:

Name	URI	Recommended/used Prefix
Dublin Core	http://purl.org/dc/elements/1.1/	dc
Photoshop	http://ns.adobe.com/photoshop/1.0/	photoshop

User interfaces (like the custom panels in Adobe CS products) showing "IPTC Core" properties must refer to this schema as an "IPTC Core" or "IPTC" panel.

Metadata Properties

Generic Specification			2descr
Name	**City (legacy)**		
Definition	Name of the city the content is focussing on -- either the place shown in visual media or referenced by text or audio media. This element is at the third level of a top-down geographical hierarchy.		
Photo Definition	Name of the city of the location shown in the image. This element is at the third level of a top-down geographical hierarchy.		
Photo Help Text	Enter the name of the city pictured in this image		
User Note(s)	This is a detail of a location with blurred semantics as it does not clearly indicate whether it is the location in the image or the location the photo was taken - which can be different. Two more concise properties are available in IPTC Extension with Location Created and Location Shown in the Image.		
Implementation Note(s)			
Field label/title	City		
Cardinality	0..1	Basic data type	free-text
Required CV			
Spec change history	Legacy status assigned in v 1.1		
XMP implementation			
XMP namespace	photoshop	**XMP property id**	City
XMP Value Type	Text	XMP Category	External
Implementation note(s)			
Maps to this IIM property	2:90 City		
XMP/IIM mapping note(s)			
G2 implementation			
Property name (XPath)			
Property-attribute(s)			
QCode scheme			
Implementation note(s)	Do not map this property. Use either Location Created or Location Shown in the Image of the IPTC Extension schema if available.		

Generic Specification		2descr
Name	**Country (legacy)**	
Definition	Full name of the country the content is focussing on -- either the country shown in visual media or referenced in text or audio media. This element is at the top/first level of a top-down geographical hierarchy. The full name should be expressed as a verbal name and not as a code, a code should go to the element "CountryCode"	
Photo Definition	Full name of the country of the location shown in the image. This element is at the top/first level of a top-down geographical hierarchy. The full name should be expressed as a verbal name and not as a code, a code should go to the element "CountryCode"	

Photo Help Text	Enter the name of the country pictured in this image		
User Note(s)	This is a detail of a location with blurred semantics as it does not clearly indicate whether it is the location in the image or the location the photo was taken - which can be different. Two more concise properties are available in IPTC Extension with Location Created and Location Shown in the Image.		
Implementation Note(s)			
Field label/title	Country		
Cardinality	0..1	Basic data type	free-text
Required CV			
Spec change history	Legacy status assigned in v 1.1		
XMP implementation			
XMP namespace	photoshop	**XMP property id**	Country
XMP Value Type	Text	XMP Category	External
Implementation note(s)			
Maps to this IIM property	2:101 Country/Primary Location Name		
XMP/IIM mapping note(s)			
G2 implementation			
Property name (XPath)			
Property-attribute(s)			
QCode scheme			
Implementation note(s)	Do not map this property. Use either Location Created or Location Shown in the Image of the IPTC Extension schema if available.		

Generic Specification			2descr
Name	**Country Code (legacy)**		
Definition	Code of the country the content is focussing on -- either the country shown in visual media or referenced in text or audio media. This element is at the top/first level of a top-down geographical hierarchy. The code should be taken from ISO 3166 two or three letter code. The full name of a country should go to the "Country" element.		
Photo Definition	Code of the country of the location shown in the image. This element is at the top/first level of a top-down geographical hierarchy. The code should be taken from ISO 3166 two or three letter code. The full name of a country should go to the "Country" element.		
Photo Help Text	Enter the 2 or 3 letter ISO 3166 Country Code of the Country pictured in this image		
User Note(s)	This is a detail of a location with blurred semantics as it does not clearly indicate whether it is the location in the image or the location the photo was taken - which can be different. Two more concise properties are available in IPTC Extension with Location Created and Location Shown in the Image.		
Implementation Note(s)			
Field label/title	ISO Country Code		
Cardinality	0..1	Basic data type	CV-code
Required CV	ISO 3166-1 - 2 or 3 characters (see Definition)		
Spec change history	Legacy status assigned in v 1.1		
XMP implementation			
XMP namespace	Iptc4xmpCore	**XMP property id**	CountryCode
XMP Value Type	closed choice Text	XMP Category	External
Implementation note(s)	Note 1: an implementer would have to derive from the length of the value string whether this is the country code from the two or three letter scheme as no explicit indication can be provided.		
Maps to this IIM property	2:100 Country/Primary Location Code		
XMP/IIM mapping note(s)			
G2 implementation			
Property name (XPath)			
Property-attribute(s)			
QCode scheme			
Implementation note(s)	Do not map this property. Use either Location Created or Location Shown in the Image of the IPTC Extension schema if available.		

Generic Specification			2descr
Name	**Description**		
Definition	A textual description, including captions, of the item's content, particularly used where the object is not text.		
Photo Definition	A textual description, including captions, of the image.		
Photo Help Text	Enter a "caption" describing the who, what, and why of what is happening in this image,		

	this might include names of people, and/or their role in the action that is taking place within the image.		
User Note(s)			
Implementation Note(s)			
Field label/title	Caption/Description		
Cardinality	0..1	Basic data type	free-text
Required CV			
Spec change history			
XMP implementation			
XMP namespace	dc	**XMP property id**	description
XMP Value Type	Lang Alt	XMP Category	External
Implementation note(s)	Note: the XMP property (dc:description) which stores the value of this IPTC Core property is of type Lang Alt. Hence any software agent dealing with this property must abide to the processing rules for Lang Alt value type as specified by the XMP specifications.		
Maps to this IIM property	2:120 Caption/Abstract		
XMP/IIM mapping note(s)	Use this XPath: dc:description/*[@xml:lang='x-default']		
G2 implementation			
Property name (XPath)	/newsItem/contentMeta/description		
Property-attribute(s)	@role="drol:caption"		
QCode scheme			
Implementation note(s)			

Generic Specification			2descr
Name	**Headline**		
Definition	A brief synopsis of the caption. Headline is not the same as Title.		
Photo Definition	A brief synopsis of the caption. Headline is not the same as Title.		
Photo Help Text	Enter a brief publishable synopsis or summary of the contents of the image		
User Note(s)			
Implementation Note(s)			
Field label/title	Headline		
Cardinality	0..1	Basic data type	free-text
Required CV			
Spec change history			
XMP implementation			
XMP namespace	photoshop	**XMP property id**	Headline
XMP Value Type	Text	XMP Category	External
Implementation note(s)			
Maps to this IIM property	2:105 Headline		
XMP/IIM mapping note(s)			
G2 implementation			
Property name (XPath)	/newsItem/contentMeta/headline		
Property-attribute(s)			
QCode scheme			
Implementation note(s)			

Generic Specification			2descr
Name	**Intellectual Genre**		
Definition	Describes the nature, intellectual, artistic or journalistic characteristic of a item, not specifically its content.		
Photo Definition	Describes the nature, intellectual, artistic or journalistic characteristic of an image.		
Photo Help Text	Enter a term to describe the nature of the image in terms of its intellectual or journalistic characteristics, such as daybook, or feature (examples at: http://www.newscodes.org/)		
User Note(s)	The IPTC recognizes that the corresponding IPTC Genre NewsCodes needs photo specific extension to be better usable with this field (as of the release of this standard in the year 2008).		
Implementation Note(s)			
Field label/title	Intellectual genre		
Cardinality	0..1	Basic data type	free-text
Required CV	Optional: IPTC Genre NewsCodes		
Spec change history			

XMP implementation			
XMP namespace	Iptc4xmpCore	**XMP property id**	IntellectualGenre
XMP Value Type	Text	XMP Category	External
Implementation note(s)	Note / Examples: Journalistic genres: actuality, interview, background, feature, summary, wrapup News category related genres: daybook, obituary, press release, transcript It is advised to use terms from a controlled vocabulary.		
Maps to this IIM property	2:04 Object Attribute Reference		
XMP/IIM mapping note(s)			
G2 implementation			
Property name (XPath)	/newsItem/contentMeta/genre/@literal		
Property-attribute(s)			
QCode scheme			
Implementation note(s)			

Generic Specification			2descr
Name	**Keywords**		
Definition	Keywords to express the subject of the content. Keywords may be free text and don't have to be taken from a controlled vocabulary. Codes from the controlled vocabulary IPTC Subject NewsCodes must go to the "Subject Code" field.		
Photo Definition	Keywords to express the subject of the image. Keywords may be free text and don't have to be taken from a controlled vocabulary. Codes from the controlled vocabulary IPTC Subject NewsCodes must go to the "Subject Code" field.		
Photo Help Text	Enter any number of keywords, terms or phrases used to express the subject matter in the image.		
User Note(s)			
Implementation Note(s)	Single values of this field should not be restricted to single words but must allow for phrases as well.		
Field label/title	Keywords		
Cardinality	0..unbounded	Basic data type	free-text
Required CV			
Spec change history			
XMP implementation			
XMP namespace	dc	**XMP property id**	subject
XMP Value Type	bag Text	XMP Category	External
Implementation note(s)			
Maps to this IIM property	2:25 Keywords		
XMP/IIM mapping note(s)			
G2 implementation			
Property name (XPath)	/newsItem/contentMeta/subject/@literal		
Property-attribute(s)			
QCode scheme			
Implementation note(s)			

Generic Specification			2descr
Name	**Province or State (legacy)**		
Definition	Name of the subregion of a country -- either called province or state or anything else -- the content is focussing on -- either the subregion shown in visual media or referenced by text or audio media. This element is at the second level of a top-down geographical hierarchy.		
Photo Definition	Name of the subregion of a country of the location shown in the image. This element is at the second level of a top-down geographical hierarchy.		
Photo Help Text	Enter the name of the province or state pictured in this image		
User Note(s)	This is a detail of a location with blurred semantics as it does not clearly indicate whether it is the location in the image or the location the photo was taken - which can be different. Two more concise properties are available in IPTC Extension with Location Created and Location Shown in the Image.		
Implementation Note(s)			
Field label/title	Province/State		
Cardinality	0..1	Basic data type	string
Required CV			

Spec change history	Legacy status assigned in v 1.1		
XMP implementation			
XMP namespace	photoshop	**XMP property id**	State
XMP Value Type	Text	XMP Category	External
Implementation note(s)			
Maps to this IIM property	2:95 Province/State		
XMP/IIM mapping note(s)			
G2 implementation			
Property name (XPath)			
Property-attribute(s)			
QCode scheme			
Implementation note(s)	Do not map this property. Use either Location Created or Location Shown in the Image of the IPTC Extension schema if available.		

Generic Specification			2descr
Name	**Scene Code**		
Definition	Describes the scene of a news content. Specifies one or more terms from the IPTC "Scene-NewsCodes". Each Scene is represented as a string of 6 digits in an unordered list.		
Photo Definition	Describes the scene of a photo content. Specifies one ore more terms from the IPTC "Scene-NewsCodes". Each Scene is represented as a string of 6 digits in an unordered list.		
Photo Help Text	Enter only values from the IPTC Scene NewsCodes Controlled Vocabulary (see: http://www.newscodes.org/)		
User Note(s)			
Implementation Note(s)			
Field label/title	IPTC Scene Code		
Cardinality	0..unbounded	Basic data type	CV-code
Required CV	IPTC Scene NewsCodes		
Spec change history			
XMP implementation			
XMP namespace	Iptc4xmpCore	**XMP property id**	Scene
XMP Value Type	bag closed choice Text	XMP Category	External
Implementation note(s)	Note: Only Scene values from this IPTC taxonomy should be used here. More about the IPTC Scene-NewsCodes at www.newscodes.org.		
Maps to this IIM property			
XMP/IIM mapping note(s)			
G2 implementation			
Property name (XPath)	/newsItem/contentMeta/genre/@qcode		
Property-attribute(s)			
QCode scheme	IPTC Scene NewsCodes		
Implementation note(s)			

Generic Specification			2descr
Name	**Subject Code**		
Definition	Specifies one or more Subjects from the IPTC Subject-NewsCodes taxonomy to categorise the content. Each Subject is represented as a string of 8 digits in an unordered list.		
Photo Definition	Specifies one or more Subjects from the IPTC Subject-NewsCodes taxonomy to categorise the image. Each Subject is represented as a string of 8 digits in an unordered list.		
Photo Help Text	Enter only values from the IPTC Subject NewsCode Controlled Vocabulary (see: http://www.newscodes.org/)		
User Note(s)			
Implementation Note(s)			
Field label/title	IPTC Subject Code		
Cardinality	0..unbounded	Basic data type	CV-code
Required CV	IPTC Subject NewsCodes		
Spec change history			

XMP implementation			
XMP namespace	Iptc4xmpCore	**XMP property id**	SubjectCode
XMP Value Type	bag closed choice Text	XMP Category	External
Implementation note(s)	Note: Only Subjects from a controlled vocabulary should be used here, free text has to be put into the Keyword element. More about IPTC Subject-NewsCodes at www.newscodes.org.		
Maps to this IIM property	2:12 Subject Reference		
XMP/IIM mapping note(s)			

G2 implementation			
Property name (XPath)	/newsItem/contentMeta/subject/@qcode		
Property-attribute(s)			
QCode scheme	IPTC Subject NewsCodes		
Implementation note(s)			

Generic Specification			2descr
Name	**Sublocation (legacy)**		
Definition	Name of a sublocation the content is focussing on -- either the location shown in visual media or referenced by text or audio media. This location name could either be the name of a sublocation to a city or the name of a well known location or (natural) monument outside a city. In the sense of a sublocation to a city this element is at the fourth level of a top-down geographical hierarchy.		
Photo Definition	Exact name of the sublocation shown in the image. This sublocation name could either be the name of a sublocation to a city or the name of a well known location or (natural) monument outside a city. In the sense of a sublocation to a city this element is at the fourth level of a top-down geographical hierarchy.		
Photo Help Text	Enter the name of the Sublocation pictured in this image		
User Note(s)	This is a detail of a location with blurred semantics as it does not clearly indicate whether it is the location in the image or the location the photo was taken - which can be different. Two more concise properties are available in IPTC Extension with Location Created and Location Shown in the Image.		
Implementation Note(s)			
Field label/title	Sublocation		
Cardinality	0..1	Basic data type	free-text
Required CV			
Spec change history	Legacy status assigned in v 1.1		
XMP implementation			
XMP namespace	Iptc4xmpCore	**XMP property id**	Location
XMP Value Type	Text	XMP Category	External
Implementation note(s)			
Maps to this IIM property	2:92 Sublocation		
XMP/IIM mapping note(s)			
G2 implementation			
Property name (XPath)			
Property-attribute(s)			
QCode scheme			
Implementation note(s)	Do not map this property. Use either Location Created or Location Shown in the Image of the IPTC Extension schema if available.		

Generic Specification			3admin
Name	**Date Created**		
Definition	Designates the date and optionally the time the intellectual content was created rather than the date of the creation of the physical representation.		
Photo Definition	Designates the date and optionally the time the content of the image was created rather than the date of the creation of the digital representation.		
Photo Help Text	Enter the Date the image was taken		
User Note(s)			
Implementation Note(s)	If a software system requires explicit time values and no time is given by the Date Created property the software system should default the time to 00:00:00. If the software system does not require an explicit time value the time part should be left empty as it is.		
Field label/title	Date Created		
Cardinality	0..1	Basic data type	DateTime (preferred: truncated DateTime)

Required CV	
Spec change history	
XMP implementation	

XMP namespace	photoshop	**XMP property id**	DateCreated
XMP Value Type	Date	XMP Category	External
Implementation note(s)	Note 1: Any content of the IIM dataset 2:60, Time Created, should be merged to this element. Note 2: Implementers are encouraged to provide the creation date and time from the EXIF data of a digital camera to the user for entering this date for the first time.		
Maps to this IIM property	2:55 Date Created		
XMP/IIM mapping note(s)			

G2 implementation	
Property name (XPath)	/newsItem/contentMeta/contentCreated
Property-attribute(s)	
QCode scheme	
Implementation note(s)	

Generic Specification	3admin
Name	**Description Writer**
Definition	Identifier or the name of the person involved in writing, editing or correcting the description of the content.
Photo Definition	Identifier or the name of the person involved in writing, editing or correcting the description of the image.
Photo Help Text	Enter the name of the person involved in writing, editing or correcting the description of the image
User Note(s)	
Implementation Note(s)	
Field label/title	Caption/Description writer

Cardinality	0..1	Basic data type	free-text

Required CV	
Spec change history	
XMP implementation	

XMP namespace	photoshop	**XMP property id**	CaptionWriter
XMP Value Type	Text	XMP Category	External
Implementation note(s)			
Maps to this IIM property	2:122 Writer/Editor		
XMP/IIM mapping note(s)			

G2 implementation	
Property name (XPath)	/newsitem/contentMeta/contributor
Property-attribute(s)	@role="ctrol:descrWriter"
QCode scheme	
Implementation note(s)	

Generic Specification	3admin
Name	**Instructions**
Definition	Any of a number of instructions from the provider or creator to the receiver of the item.
Photo Definition	Any of a number of instructions from the provider or creator to the receiver of the image which might include any of the following: embargoes (NewsMagazines OUT) and other restrictions not covered by the "Rights Usage Terms" field; information regarding the original means of capture (scanning notes, colourspace info) or other specific text information that the user may need for accurate reproduction; additional permissions required when publishing; credits for publishing if they exceed the IIM length of the credit field
Photo Help Text	Enter information about embargoes, or other restrictions not covered by the Rights Usage field
User Note(s)	
Implementation Note(s)	
Field label/title	Instructions

Cardinality	0..1	Basic data type	free-text

Required CV	
Spec change history	

XMP implementation			
XMP namespace	photoshop	**XMP property id**	Instructions
XMP Value Type	Text	XMP Category	External
Implementation note(s)			
Maps to this IIM property	2:40 Special Instruction		
XMP/IIM mapping note(s)			

G2 implementation			
Property name (XPath)	/newsItem/itemMeta/edNote		
Property-attribute(s)			
QCode scheme			
Implementation note(s)			

Generic Specification			3admin
Name	**Job Id**		
Definition	Number or identifier for the purpose of improved workflow handling. This is a user created identifier related to the job for which the item is supplied.		
Photo Definition	Number or identifier for the purpose of improved workflow handling. This is a user created identifier related to the job for which the image is supplied.		
Photo Help Text	Enter a number or identifier needed for workflow control or tracking		
User Note(s)			
Implementation Note(s)			
Field label/title	Job Identifier		
Cardinality	0..1	Basic data type	free-text
Required CV			
Spec change history			

XMP implementation			
XMP namespace	photoshop	**XMP property id**	TransmissionReference
XMP Value Type	Text	XMP Category	External
Implementation note(s)	Note: As this identifier references a job of the receiver's workflow it must first be issued by the receiver, then transmitted to the creator or provider of the news object and finally added by the creator to this field.		
Maps to this IIM property	2:103 Original Transmission Reference		
XMP/IIM mapping note(s)			

G2 implementation			
Property name (XPath)	/newsItem/itemMeta/memberOf/@literal		
Property-attribute(s)			
QCode scheme			
Implementation note(s)			

Generic Specification			3admin
Name	**Title**		
Definition	A shorthand reference for the item. Title provides a short human readable name which can be a text and/or numeric reference. It is not the same as Headline.		
Photo Definition	A shorthand reference for the digital image. Title provides a short human readable name which can be a text and/or numeric reference. It is not the same as Headline.		
Photo Help Text	Enter a short verbal and human readable name for the image, this may be the file name		
User Note(s)	Many use the Title field to store the filename of the image, though the field may be used in many ways. Formal identifiers are provided by the Digital Image Id, or the Registry Entry property of the IPTC Extension.		
Implementation Note(s)			
Field label/title	Title		
Cardinality	0..1	Basic data type	free-text
Required CV			
Spec change history			

XMP implementation			
XMP namespace	dc	**XMP property id**	title
XMP Value Type	Lang Alt	XMP Category	External
Implementation note(s)	Note 1: This element aligns with the use of Dublin Core's "Title" element. Note 2: the XMP property (dc:title) which stores the value of this IPTC Core property is of type Lang Alt. Hence any software agent dealing with this property must abide to the processing rules for Lang Alt value type as specified by the XMP specifications.		

Maps to this IIM property	2:05 Object Name
XMP/IIM mapping note(s)	Use this XPath: dc:title/*[@xml:lang='x-default']

G2 implementation	
Property name (XPath)	/newsItem/itemMeta/title
Property-attribute(s)	
QCode scheme	
Implementation note(s)	

Generic Specification		4rightrel
Name	**Copyright Notice**	
Definition	Contains any necessary copyright notice for claiming the intellectual property for this item and should identify the current owner of the copyright for the item. Other entities like the creator of the item may be added in the corresponding field. Notes on usage rights should be provided in "Rights usage terms".	
Photo Definition	Contains any necessary copyright notice for claiming the intellectual property for this photograph and should identify the current owner of the copyright for the photograph. Other entities like the creator of the photograph may be added in the corresponding field. Notes on usage rights should be provided in "Rights usage terms".	
Photo Help Text	Enter a Notice on the current owner of the Copyright for this image, such as ©2008 Jane Doe	
User Note(s)	Copyright ownership can be expressed in a more controlled way using the PLUS fields "Copyright Owner", "Copyright Owner ID", "Copyright Owner Name" of the IPTC Extension. It is the user's responsibility to keep the values of the four fields in sync.	
Implementation Note(s)		
Field label/title	Copyright Notice	

Cardinality	0..1	Basic data type	free-text
Required CV			
Spec change history			

XMP implementation			
XMP namespace	dc	**XMP property id**	rights
XMP Value Type	Lang Alt	XMP Category	External
Implementation note(s)	Note: the XMP property (dc:rights) which stores the value of this IPTC Core property is of type Lang Alt. Hence any software agent dealing with this property must abide to the processing rules for Lang Alt value type as specified by the XMP specifications.		
Maps to this IIM property	2:116 Copyright Notice		
XMP/IIM mapping note(s)	Use this XPath: dc:rights/*[@xml:lang='x-default']		

G2 implementation	
Property name (XPath)	/newsItem/rightsInfo/copyrightNotice
Property-attribute(s)	
QCode scheme	
Implementation note(s)	

Generic Specification		4rightrel
Name	**Creator**	
Definition	Contains the name of the person who created the content of this item, a photographer for photos, a graphic artist for graphics, or a writer for textual news, but in cases where the photographer should not be identified the name of a company or organisation may be appropriate.	
Photo Definition	Contains the name of the photographer, but in cases where the photographer should not be identified the name of a company or organisation may be appropriate.	
Photo Help Text	Enter the name of the person that created this image	
User Note(s)	The creator can be expressed in a more controlled way using the "Image Creator" of PLUS in the IPTC Extension additionally. It is the user's responsibility to keep the values of the IPTC Core and the PLUS fields in sync.	
Implementation Note(s)	Synchronising this Creator property with PLUS' Image Creator Name should be supported by software.	
Field label/title	Creator	

Cardinality	0..unbounded	Basic data type	string
Required CV			
Spec change history	Specs (July 2010): mapping IIM <-> XMP aligned to the unbounded cardinality of both the IIM and the XMP property		

XMP implementation			
XMP namespace	dc	**XMP property id**	creator

XMP Value Type	Seq ProperName	XMP Category	External
Implementation note(s)			
Maps to this IIM property	2:80 By-line		
XMP/IIM mapping note(s)			

G2 implementation	
Property name (XPath)	/newsItem/contentMeta/creator/name
Property-attribute(s)	
QCode scheme	
Implementation note(s)	

Generic Specification			4rightrel
Name	**Creator's Contact Info**		
Definition	The creator's contact information provides all necessary information to get in contact with the creator of this item and comprises a set of sub-properties for proper addressing.		
Photo Definition	The creator's contact information provides all necessary information to get in contact with the creator of this image and comprises a set of sub-properties for proper addressing.		
Photo Help Text			
User Note(s)	The IPTC Extension Licensor fields should be used instead of these Creator's Contact Info fields if you are using IPTC Extension fields. If the creator is also the licensor his or her contact information should be provided in the Licensor fields.		
Implementation Note(s)	The structure of Creator's Contact Info should not be visible to the user.		
Field label/title	Creator's Contact info		
Cardinality	0..1	Basic data type	struct
Required CV			
Spec change history			

XMP implementation			
XMP namespace	Iptc4xmpCore	**XMP property id**	CreatorContactInfo
XMP Value Type	struct ContactInfo	XMP Category	External
Implementation note(s)	Note 1 to user interface implementers: All sub-properties of "Creator's contact information" should be shown as group on the form. Note 2: the CreatorContactInfo sub-properties' naming aligns with the vCard specification RFC 2426.		
Maps to this IIM property			
XMP/IIM mapping note(s)			

G2 implementation	
Property name (XPath)	/newsItem/contentMeta/creator/personDetails ....
Property-attribute(s)	
QCode scheme	
Implementation note(s)	

Generic Specification			4rightrel
Name	**Creator's jobtitle**		
Definition	Contains the job title of the person who created the content of this item. As this is sort of a qualifier the Creator element has to be filled in as mandatory prerequisite for using Creator's Jobtitle.		
Photo Definition	Contains the job title of the photographer. As this is sort of a qualifier the Creator element has to be filled in as mandatory prerequisite for using Creator's Jobtitle.		
Photo Help Text	Enter the Job Title of the person listed in the Creator field		
User Note(s)			
Implementation Note(s)			
Field label/title	Creator's Jobtitle		
Cardinality	0..1	Basic data type	string
Required CV			
Spec change history			

XMP implementation			
XMP namespace	photoshop	**XMP property id**	AuthorsPosition
XMP Value Type	Text	XMP Category	External
Implementation note(s)	Note 1 {added in (July 2010)}: corresponds to the first entry in a sequence of creators		
Maps to this IIM property	2:85 By-line Title		
XMP/IIM mapping note(s)			

G2 implementation	
Property name (XPath)	/newsItem/contentMeta/creator/facet
Property-attribute(s)	
QCode scheme	
Implementation note(s)	

Generic Specification		4rightrel
Name	**Credit Line**	
Definition	The credit to person(s) and/or organisation(s) required by the supplier of the item to be used when published. This is a free-text field.	
Photo Definition	The credit to person(s) and/or organisation(s) required by the supplier of the image to be used when published. This is a free-text field.	
Photo Help Text	Enter who should be credited when this image is published	
User Note(s)	Note 1: For more formal identifications of the creator or the owner of the copyrights of this image other rights properties may be used. Note 2: This property was named "Credit" by the IIM metadata, then it was renamed to "Provider" in IPTC Core 1.0. In IPTC Core 1.1. it has been renamed to "Credit Line" as the field is used for this purpose by many users.	
Implementation Note(s)		
Field label/title	Credit Line	
Cardinality	0..1	Basic data type	free-text
Required CV		
Spec change history	Renamed from Provider to Credit Line in v 1.1	

XMP implementation			
XMP namespace	photoshop	**XMP property id**	Credit
XMP Value Type	Text	XMP Category	External
Implementation note(s)			
Maps to this IIM property	2:110 Credit		
XMP/IIM mapping note(s)			

G2 implementation	
Property name (XPath)	/newsItem/contentMeta/creditline
Property-attribute(s)	
QCode scheme	
Implementation note(s)	

Generic Specification		4rightrel
Name	**Rights Usage Terms**	
Definition	The licensing parameters of the item expressed in free-text.	
Photo Definition	The licensing parameters of the image expressed in free-text.	
Photo Help Text	Enter instructions on how this image can legally be used	
User Note(s)	The PLUS fields of the IPTC Extension can be used in parallel to express the licensed usage in more controlled terms.	
Implementation Note(s)		
Field label/title	Rights Usage Terms	
Cardinality	0..1	Basic data type	free-text
Required CV		
Spec change history		

XMP implementation			
XMP namespace	xmpRights	**XMP property id**	UsageTerms
XMP Value Type	Lang Alt	XMP Category	External
Implementation note(s)			
Maps to this IIM property			
XMP/IIM mapping note(s)			

G2 implementation	
Property name (XPath)	/newsItem/rightsInfo/usageTerms
Property-attribute(s)	
QCode scheme	
Implementation note(s)	

Generic Specification			4rightrel
Name	Source		
Definition	Identifies the original owner of the copyright for the intellectual content of the item. This could be an agency, a member of an agency or an individual. Source could be different from Creator and from the entities in the CopyrightNotice.		
Photo Definition	Identifies the original owner of the copyright for the intellectual content of the image. This could be an agency, a member of an agency or an individual. Source could be different from Creator and from the entities in the CopyrightNotice.		
Photo Help Text	Enter the original owner of the copyright of this image		
User Note(s)	This field may be used primarily in syndication workflows.		
Implementation Note(s)			
Field label/title	Source		
Cardinality	0..1	Basic data type	free-text
Required CV			
Spec change history			
XMP implementation			
XMP namespace	photoshop	**XMP property id**	Source
XMP Value Type	Text	XMP Category	External
Implementation note(s)	The original owner can never change. For that reason the content of this property should never be changed or deleted after the information is entered following the news object's initial creation.		
Maps to this IIM property	2:115 Source		
XMP/IIM mapping note(s)			
G2 implementation			
Property name (XPath)	/newsItem/rightsInfo/copyrightHolder		
Property-attribute(s)			
QCode scheme			
Implementation note(s)			

Metadata Structure: Contact Information Details

Generic Specification			9type-ContInfo
Name	Contact Information Details structure {data type}		
Definition	A generic structure providing a basic set of information to get in contact with a person or organisation. It includes an Address, a City, a Country, Email address, Phone number, a Postal Code, a State or Province and Web URL.		
Photo Definition	A generic structure providing a basic set of information to get in contact with a person or organisation. It includes an Address, a City, a Country, Email address, Phone number, a Postal Code, a State or Province and Web URL.		
Photo Help Text			
User Note(s)			
Implementation Note(s)			
Field label/title	Contact Information		
Cardinality		Basic data type	structure
Required CV			
Spec change history			
XMP implementation			
XMP namespace	Iptc4xmpCore	**XMP property id**	ContactInfoDetails
XMP Value Type	structure	XMP Category	
Implementation note(s)	Adoption of an appropriate person information scheme discussed - decision on 9 September.		
Maps to this IIM property	2:118 Contact		
XMP/IIM mapping note(s)	NONE		
G2 implementation			
Property name (XPath)			
Property-attribute(s)			
QCode scheme			
Implementation note(s)	Maps to the "contactInfo" common component		

Generic Specification			9type-ContInfo
Name	**Address {contact info detail}**		
Definition	The contact information address part. Comprises an optional company name and all required information to locate the building or postbox to which mail should be sent. To that end, the address is a multiline field.		
Photo Definition	The contact information address part. Comprises an optional company name and all required information to locate the building or postbox to which mail should be sent. To that end, the address is a multiline field.		
Photo Help Text	Enter Address for the person that created this image		
User Note(s)			
Implementation Note(s)			
Field label/title	(Contact Info detail:) Address		
Cardinality	0..unbounded	Basic data type	string
Required CV			
Spec change history			
XMP implementation			
XMP namespace	Iptc4xmpCore	**XMP property id**	CiAdrExtadr
XMP Value Type	Text	XMP Category	External
Implementation note(s)	Note 1: to user interface implementers: This field should be part of a "Contact information" group on the form. Note 2: the ContactInfo naming aligns with the vCard specification RFC 2426.		
Maps to this IIM property			
XMP/IIM mapping note(s)			
G2 implementation			
Property name (XPath)	.../contactInfo/address/line		
Property-attribute(s)			
QCode scheme			
Implementation note(s)			

Generic Specification			9type-ContInfo
Name	**City {contact info detail}**		
Definition	The contact information city part.		
Photo Definition	The contact information city part.		
Photo Help Text	Enter the City for the address of the person that created this image		
User Note(s)			
Implementation Note(s)			
Field label/title	(Contact Info detail:) City		
Cardinality	0..1	Basic data type	string
Required CV			
Spec change history			
XMP implementation			
XMP namespace	Iptc4xmpCore	**XMP property id**	CiAdrCity
XMP Value Type	Text	XMP Category	External
Implementation note(s)	Note 1: to user interface implementers: This field should be part of a "Contact information" group on the form. Note 2: the ContactInfo naming aligns with the vCard specification RFC 2426.		
Maps to this IIM property			
XMP/IIM mapping note(s)			
G2 implementation			
Property name (XPath)	.../contactInfo/address/locality/name		
Property-attribute(s)			
QCode scheme			
Implementation note(s)			

Generic Specification			9type-ContInfo
Name	**Country {contact info detail}**		
Definition	The contact information country part.		
Photo Definition	The contact information country part.		
Photo Help Text	Enter the Country name for the address of the person that created this image		

User Note(s)			
Implementation Note(s)			
Field label/title	(Contact Info detail:) Country		
Cardinality	0..1	Basic data type	string
Required CV			
Spec change history			
XMP implementation			
XMP namespace	Iptc4xmpCore	**XMP property id**	CiAdrCtry
XMP Value Type	Text	XMP Category	External
Implementation note(s)	Note 1: to user interface implementers: This field should be part of a "Contact information" group on the form. Note 2: the ContactInfo naming aligns with the vCard specification RFC 2426.		
Maps to this IIM property			
XMP/IIM mapping note(s)			
G2 implementation			
Property name (XPath)	.../contactInfo/address/country/name		
Property-attribute(s)			
QCode scheme			
Implementation note(s)			

Generic Specification			9type-ContInfo
Name	**Email address(es) {contact info detail}**		
Definition	The contact information email address part.		
Photo Definition	The contact information email address part.		
Photo Help Text	Enter the work Email address(es) for the person that created this image, such as name@domain.com		
User Note(s)	Multiple email addresses can be given. May have to be separated by a comma in the user interface.		
Implementation Note(s)			
Field label/title	(Contact Info detail:) Email(s)		
Cardinality	0..unbounded	Basic data type	string
Required CV			
Spec change history			
XMP implementation			
XMP namespace	Iptc4xmpCore	**XMP property id**	CiEmailWork
XMP Value Type	Text	XMP Category	External
Implementation note(s)	Note 1 to user interface implementers: This field should be part of a "Contact information" group on the form. Note 2 to user interface implementers: provide sufficient space to fill in multiple e-mail addresses. Note 3: the ContactInfo naming aligns with the vCard specification RFC 2426.		
Maps to this IIM property			
XMP/IIM mapping note(s)			
G2 implementation			
Property name (XPath)	.../contactInfo/email		
Property-attribute(s)			
QCode scheme			
Implementation note(s)			

Generic Specification			9type-ContInfo
Name	**Phone number(s) {contact info detail}**		
Definition	The contact information phone number part.		
Photo Definition	The contact information phone number part.		
Photo Help Text	Enter the work Phone number(s) for the person that created this image, using the international format, such as +1 (123) 456789		
User Note(s)	Multiple numbers can be given. May have to be separated by a comma in the user interface.		
Implementation Note(s)			
Field label/title	(Contact Info detail:) Phone(s)		
Cardinality	0..unbounded	Basic data type	string
Required CV			

Copyright © 2010 International Press Telecommunications Council. All Rights Reserved

Spec change history	

XMP implementation	

XMP namespace	Iptc4xmpCore	**XMP property id**	CiTelWork
XMP Value Type	Text	XMP Category	External
Implementation note(s)	Note 1 to user interface implementers: This field should be part of a "Contact information" group on the form. Note 2 to user interface implementers: provide sufficient space to fill in multiple international numbers. Note 3: the ContactInfo naming aligns with the vCard specification RFC 2426.		
Maps to this IIM property			
XMP/IIM mapping note(s)			

G2 implementation	
Property name (XPath)	.../contactInfo/phone
Property-attribute(s)	
QCode scheme	
Implementation note(s)	

Generic Specification			9type-ContInfo
Name	**Postal Code {contact info detail}**		
Definition	The contact information part denoting the local postal code.		
Photo Definition	The contact information part denoting the local postal code.		
Photo Help Text	Enter the Postal Code for the address of the person that created this image		
User Note(s)			
Implementation Note(s)			
Field label/title	(Contact Info detail:) Postal Code		
Cardinality	0..1	Basic data type	string
Required CV			
Spec change history			

XMP implementation	

XMP namespace	Iptc4xmpCore	**XMP property id**	CiAdrPcode
XMP Value Type	Text	XMP Category	External
Implementation note(s)	Note 1: to user interface implementers: This field should be part of a "Contact information" group on the form. Note 2: the ContactInfo naming aligns with the vCard specification RFC 2426.		
Maps to this IIM property			
XMP/IIM mapping note(s)			

G2 implementation	
Property name (XPath)	.../contactInfo/address/postalCode
Property-attribute(s)	
QCode scheme	
Implementation note(s)	

Generic Specification			9type-ContInfo
Name	**State/Province {contact info detail}**		
Definition	The contact information part denoting regional information such as state or province.		
Photo Definition	The contact information part denoting regional information such as state or province.		
Photo Help Text	Enter the State for the address of the person that created this image		
User Note(s)			
Implementation Note(s)			
Field label/title	(Contact Info detail:) State/Province		
Cardinality	0..1	Basic data type	string
Required CV			
Spec change history			

XMP implementation	

XMP namespace	Iptc4xmpCore	**XMP property id**	CiAdrRegion
XMP Value Type	Text	XMP Category	External
Implementation note(s)	Note 1: to user interface implementers: This field should be part of a "Contact information" group on the form. Note 2: the ContactInfo naming aligns with the vCard specification RFC 2426.		

Maps to this IIM property	
XMP/IIM mapping note(s)	
G2 implementation	
Property name (XPath)	.../contactInfo/address/area
Property-attribute(s)	
QCode scheme	
Implementation note(s)	

Generic Specification			9type-ContInfo
Name	**Web URL(s) {contact info detail}**		
Definition	The contact information web address part. Multiple addresses can be given, separated by a comma.		
Photo Definition	The contact information web address part. Multiple addresses can be given. May have to be separated by a comma in the user interface.		
Photo Help Text	Enter the work Web URL(s) for the person that created this image, such as http://www.domain.com/		
User Note(s)			
Implementation Note(s)			
Field label/title	(Contact Info detail:) Web URL(s)		
Cardinality	0..unbounded	Basic data type	URL
Required CV			
Spec change history			
XMP implementation			
XMP namespace	Iptc4xmpCore	**XMP property id**	CiUrlWork
XMP Value Type	Text	XMP Category	External
Implementation note(s)	Note 1 to user interface implementers: This field should be part of a "Contact information" group on the form. Note 2 to user interface implementers: provide sufficient space to fill in multiple URLs. Note 3: the ContactInfo naming aligns with the vCard specification RFC 2426.		
Maps to this IIM property			
XMP/IIM mapping note(s)			
G2 implementation			
Property name (XPath)	.../contactInfo/web		
Property-attribute(s)			
QCode scheme			
Implementation note(s)			

"Deprecated" IIM metadata elements

Not all of the IIM datasets adopted by Adobe to be used for the Photoshop File Info have been adopted for the IPTC Core schema. In terms of mapping and transferring metadata from the legacy IIM-based headers, these datasets must to be considered as deprecated:

Urgency: As this metadata element pertains to distribution management, it was not adopted. However, this data is still synchronised with the XMP property "photoshop:Urgency", and hence, available for future use, but outside the IPTC Core.

Category: As this metadata element was earmarked as deprecated already for IIM 4.1, it was not adopted. However, this data is still synchronised with the XMP property "photoshop:Category", and hence available for future use – but outside the IPTC Core.

For migrating from Category codes to Subject Codes please read the Guideline for mapping Category Codes to Subject NewsCodes section below.

Supplemental Categories: As this metadata element was earmarked as deprecated already for IIM 4.1, it was not adopted. However, this data is still synchronised with the XMP property "photoshop:SupplementalCategories", and hence available for future use – but outside the IPTC Core.

Synchronising IIM elements with existing XMP properties

This table shows how legacy metadata elements from the "IPTC header" – which were taken from the IPTC Information Interchange Model IIM are synchronised by Adobe Photoshop CS with XMP properties.

<---	legacy IPTC headers	--->	XMP
Photoshop name		IIM name	Mapping (XPath expression)
Title		2:05 Object Name	dc:title/*[@xml:lang='x-default']
Urgency		2:10 Urgency	photoshop:Urgency
Category		2:15 Category	photoshop:Category
Supplemental Categories		2:20 Supplemental Category	photoshop:SupplementalCategories
Keywords		2:25 Keywords	dc:subject
Instructions		2:40 Special Instruction	photoshop:Instructions
Date Created		2:55 Date Created	photoshop:DateCreated
Author		2:80 By-line	dc:creator
AuthorsPosition		2:85 By-line Title	photoshop:AuthorsPosition
City		2:90 City	photoshop:City
State/Province		2:95 Province/State	photoshop:State
Country		2:101 Country/Primary Location Name	photoshop:Country
Transmission Reference		2:103 Original Transmission Reference	photoshop:TransmissionReference
Headline		2:105 Headline	photoshop:Headline
Credit		2:110 Credit	photoshop:Credit
Source		2:115 Source	photoshop:Source
Copyright Notice		2:116 Copyright Notice	dc:rights/*[@xml:lang='x-default']
Description		2:120 Caption/Abstract	dc:description/*[@xml:lang='x-default']
Description Writer		2:122 Writer/Editor	photoshop:CaptionWriter

As of July 2010.

For the exact processing while synchronising metadata values please read the Guidelines for Handling Image Metadata from the Metadata Working Group. The document can be obtained from
http://www.metadataworkinggroup.org/specs/

Guideline for mapping Category Codes to Subject NewsCodes

Early versions of IIM included the Datasets 2:15 "Category" and 2:20 "Supplemental Category". But these two fields were replaced in IIM version 4 (released in 1999) by the Dataset 2:12 "Subject Reference" which must be populated by values from the Subject NewsCodes controlled vocabulary. In version 4 of the IIM specification document the Datasets Category and Supplemental Category were indicated as "deprecated" which meant that after the time of this release these two Datasets should not be populated with values any longer.

To support the move from the three letter codes used with the Category Dataset to the Subject NewsCodes this table provides a reference for mapping.

Category Code	Subject NewsCode	Name and definition of the code
ACE	01000000	**arts, culture and entertainment** Matters pertaining to the advancement and refinement of the human mind, of interests, skills, tastes and emotions
CLJ	02000000	**crime, law and justice** Establishment and/or statement of the rules of behaviour in society, the enforcement of these rules, breaches of the rules and the punishment of offenders. Organizations and bodies involved in these activities.
DIS	03000000	**disaster and accident** Man made and natural events resulting in loss of life or injury to living creatures and/or damage to inanimate objects or property.
FIN	04000000	**economy, business and finance** All matters concerning the planning, production and exchange of wealth.
EDU	05000000	**education** All aspects of furthering knowledge of human individuals from birth to death.
EVN	06000000	**environmental issue** All aspects of protection, damage, and condition of the ecosystem of the planet earth and its surroundings.
HTH	07000000	**health** All aspects pertaining to the physical and mental welfare of human beings.
HUM	08000000	**human interest** Lighter items about individuals, groups, animals or objects.
LAB	09000000	**labour** Social aspects, organizations, rules and conditions affecting the employment of human effort for the generation of wealth or provision of services and the economic support of the unemployed.
LIF	10000000	**lifestyle and leisure** Activities undertaken for pleasure, relaxation or recreation outside paid employment, including eating and travel.
POL	11000000	**politics** Local, regional, national and international exercise of power, or struggle for power, and the relationships between governing bodies and states.
REL	12000000	**religion and belief** All aspects of human existence involving theology, philosophy, ethics and spirituality.
SCI	13000000	**science and technology** All aspects pertaining to human understanding of nature and the physical world and the development and application of this knowledge
SOI	14000000	**social issue** Aspects of the behaviour of humans affecting the quality of life.
SPO	15000000	**sport** Competitive exercise involving physical effort. Organizations and bodies involved in these activities.
WAR	16000000	**unrest, conflicts and war** Acts of socially or politically motivated protest and/or violence.
WEA	17000000	**weather** The study, reporting and prediction of meteorological phenomena.

IPTC Extension schema 1.1 specifications

Names and Identifiers

The **XML namespace URI** for the "IPTC Extension" versions 1.0 and 1.1 is:
http://iptc.org/std/Iptc4xmpExt/2008-02-29/

The **preferred XML namespace-prefix** for "IPTC Extension"-related XMP properties is: **Iptc4xmpExt**
The use of this namespace-prefix is not mandatory but highly recommended for interoperability support.

User interfaces (like the custom panels in Adobe CS products) showing "IPTC Extension" properties must refer to it as an "IPTC Extension" or "IPTC …" panel.

This **other namespace** is used in the scope of IPTC Extension:

Name	URI	Recommended Prefix
PLUS	http://ns.useplus.org/ldf/xmp/1.0/	plus

Metadata Properties

Generic Specification				2descr
Name	Additional Model Information			
Definition	Information about the ethnicity and other facets of the model(s) in a model-released image.			
Photo Definition	Information about the ethnicity and other facets of the model(s) in a model-released image.			
Photo Help Text	Enter information like ethnicity or other details about the model(s) in this image			
User Note(s)	Use the Model Age field for the age of model(s).			
Implementation Note(s)				
Field label/title	Additional model info			
Cardinality	0..1	Basic data type	free-text	
Required CV				
Spec change history				
XMP implementation				
XMP namespace	Iptc4xmpExt	**XMP property id**	AddlModelInfo	
XMP Value Type	Text	XMP Category	External	
Implementation note(s)				
Maps to this IIM property				
XMP/IIM mapping note(s)				
G2 implementation				
Property name (XPath)	/newsItem/contentMeta/description			
Property-attribute(s)	@role="drol:modelInfo"			
QCode scheme				
Implementation note(s)				

Generic Specification				2descr
Name	Artwork or Object in the Image			
Definition	A set of metadata about artwork or an object in the item			
Photo Definition	A set of metadata about artwork or an object in the image			
Photo Help Text	Enter details about artwork or objects shown in this image			
User Note(s)				
Implementation Note(s)				
Field label/title	Artwork or object in the image			
Cardinality	0..unbounded	Basic data type	structure	
Required CV				
Spec change history				
XMP implementation				
XMP namespace	Iptc4xmpExt	**XMP property id**	ArtworkOrObject	
XMP Value Type	bag ArtworkOrObjectDetails	XMP Category	External	

Implementation note(s)	
Maps to this IIM property	
XMP/IIM mapping note(s)	

G2 implementation	
Property name (XPath)	
Property-attribute(s)	
QCode scheme	
Implementation note(s)	Mapping rules are pending.

Generic Specification			2descr
Name	**Code of Organisation Featured in the Image**		
Definition	Code from a controlled vocabulary for identifying the organisation or company which is featured in the content.		
Photo Definition	Code from a controlled vocabulary for identifying the organisation or company which is featured in the image.		
Photo Help Text	Enter an identifier for the controlled vocabulary, then a colon, and finally the code from the vocabulary assigned to the organisation shown in this image (e.g. nasdaq:companyA)		
User Note(s)	For example a stock ticker symbol may be used.		
Implementation Note(s)			
Field label/title	Code of featured Organisation		
Cardinality	0..unbounded	Basic data type	CV-code
Required CV	Open to any CV		
Spec change history			

XMP implementation			
XMP namespace	Iptc4xmpExt	**XMP property id**	OrganisationInImageCode
XMP Value Type	bag Text	XMP Category	External
Implementation note(s)			
Maps to this IIM property			
XMP/IIM mapping note(s)			

G2 implementation	
Property name (XPath)	/newsItem/contentMeta/subject/@qcode
Property-attribute(s)	@type="cpnat:organisation"
QCode scheme	
Implementation note(s)	

Generic Specification			2descr
Name	**Controlled Vocabulary Term**		
Definition	A term to describe the content of the image by a value from a Controlled Vocabulary.		
Photo Definition	A term to describe the content of the image by a value from a Controlled Vocabulary.		
Photo Help Text	Enter an identifier for the controlled vocabulary, then a colon, and finally the code from the vocabulary assigned to the term		
User Note(s)			
Implementation Note(s)	This property is part of the Photo Metadata 2008 specifications, but should not released to the public on the standard Adobe Custom Panels for IPTC metadata or other user interfaces unless agreed by the IPTC.		
Field label/title	Controlled Vocabulary Term		
Cardinality	0..unbounded	Basic data type	CV-code
Required CV	Any Controlled Vocabulary registered with the IPTC for this field.		
Spec change history			

XMP implementation			
XMP namespace	Iptc4xmpExt	**XMP property id**	CVterm
XMP Value Type	bag URI	XMP Category	External
Implementation note(s)			
Maps to this IIM property			
XMP/IIM mapping note(s)			

G2 implementation	
Property name (XPath)	/newsItem/contentMeta/subject/@qcode
Property-attribute(s)	
QCode scheme	
Implementation note(s)	

Generic Specification			2descr
Name	**Location Shown in the Image**		
Definition	A location the content of the item is about. For photos that is a location shown in the image.		
Photo Definition	A location shown in the image.		
Photo Help Text	Enter the details about a location which is shown in this image		
User Note(s)	If the location the image was taken in is different from this location the property Location Created should be used too.		
Implementation Note(s)			
Field label/title	Location shown		
Cardinality	0..unbounded	Basic data type	structure
Required CV			
Spec change history			

XMP implementation			
XMP namespace	Iptc4xmpExt	**XMP property id**	LocationShown
XMP Value Type	bag LocationDetails	XMP Category	External
Implementation note(s)			
Maps to this IIM property			
XMP/IIM mapping note(s)			

G2 implementation	
Property name (XPath)	/newsItem/contentMeta/subject/....
Property-attribute(s)	@type="cpnat:geoArea"
QCode scheme	
Implementation note(s)	

Generic Specification			2descr
Name	**Model Age**		
Definition	Age of the human model(s) at the time this image was taken in a model released image.		
Photo Definition	Age of the human model(s) at the time this image was taken in a model released image.		
Photo Help Text	Enter the age of the human model(s) at the time this image was made		
User Note(s)	The user should be aware of any legal implications of providing ages for young models. Ages below 18 years should not be included.		
Implementation Note(s)			
Field label/title	Model age		
Cardinality	0..unbounded	Basic data type	numeric
Required CV			
Spec change history			

XMP implementation			
XMP namespace	Iptc4xmpExt	**XMP property id**	ModelAge
XMP Value Type	bag Integer	XMP Category	External
Implementation note(s)			
Maps to this IIM property			
XMP/IIM mapping note(s)			

G2 implementation	
Property name (XPath)	/newsItem/contentMeta/description
Property-attribute(s)	@role="drol:modelAge"
QCode scheme	
Implementation note(s)	

Generic Specification			2descr
Name	**Name of Organisation Featured in the Image**		
Definition	Name of the organisation or company which is featured in the content.		
Photo Definition	Name of the organisation or company which is featured in the image.		
Photo Help Text	Enter the name of the organisation which is featured by this image		
User Note(s)	May be supplemented by values from a controlled vocabulary in the Organisation Code field.		
Implementation Note(s)			
Field label/title	Name of featured Organisation		
Cardinality	0..unbounded	Basic data type	free-text
Required CV			
Spec change history			

XMP implementation			
XMP namespace	Iptc4xmpExt	**XMP property id**	OrganisationInImageName
XMP Value Type	bag Text	XMP Category	External
Implementation note(s)			
Maps to this IIM property			
XMP/IIM mapping note(s)			

G2 implementation		
Property name (XPath)	/newsItem/contentMeta/subject/name	
Property-attribute(s)	@type="cpnat:organisation"	
QCode scheme		
Implementation note(s)		

Generic Specification			2descr
Name	**Person Shown in the Image**		
Definition	Name of a person the content of the item is about. For photos that is a person shown in the image.		
Photo Definition	Name of a person shown in the image.		
Photo Help Text	Enter the name of the person shown in this image		
User Note(s)			
Implementation Note(s)			
Field label/title	Person shown		
Cardinality	0..unbounded	Basic data type	free-text
Required CV			
Spec change history			

XMP implementation			
XMP namespace	Iptc4xmpExt	**XMP property id**	PersonInImage
XMP Value Type	bag Text	XMP Category	External
Implementation note(s)			
Maps to this IIM property			
XMP/IIM mapping note(s)			

G2 implementation	
Property name (XPath)	/newsItem/contentMeta/subject/name
Property-attribute(s)	@type="cpnat:person"
QCode scheme	
Implementation note(s)	

Generic Specification		3admin
Name	**Digital Image GUID**	
Definition	Globally unique identifier for the item. It is created and applied by the creator of the item at the time of its creation . This value shall not be changed after that time.	
Photo Definition	Globally unique identifier for this digital image. It is created and applied by the creator of the digital image at the time of its creation . This value shall not be changed after that time.	
Photo Help Text	If an ID already exists, don't change - otherwise enter a globally unique identifier for this digital image	
User Note(s)	The identifier will probably be generated by the technical means of an imaging device or software and should be applied to the digital image file as early as possible in its life cycle. This identifier does not identify any pictured content, particularly in case of a scan of non-digital images, only this digital representation.	
Implementation Note(s)	Any algorithm to create this identifier has to comply with the technical requirements to create a globally unique id. Any device creating digital images - e.g. still image cameras, video cameras, scanners - should create such an identifer right at the time of the creation of the digital data and add the id to the set of metadata without compromising performance. It is recommended that this image identifier allows identifying the device by which the image data and the GUID were created. IPTC's basic requirements for unique ids are: * It must be globally unique. Algorithms for this purpose exist. * It should identify the camera body. * It should identify each individual photo from this camera body. * It should identify the date and time of the creation of the picture. * It should be secured against tampering. This field should be implemented in a way to prove it has not been changed since its value has been applied.	

	If the identifier has been created by the imaging device its type and brand can be found in the Exif/technical metadata.		
Field label/title	Digital Image Identifier		
Cardinality	0..1	Basic data type	string
Required CV			
Spec change history	Specs (July 2010): XMP Category changed to Internal		
XMP implementation			
XMP namespace	Iptc4xmpExt	**XMP property id**	DigImageGUID
XMP Value Type	text	XMP Category	Internal
Implementation note(s)			
Maps to this IIM property			
XMP/IIM mapping note(s)			
G2 implementation			
Property name (XPath)	/newsItem/contentMeta/altId		
Property-attribute(s)	@type="altidtype:imageGUID"		
QCode scheme			
Implementation note(s)			

Generic Specification			3admin
Name	**Digital Source File Type (DEPRECATED)**		
Definition	The type of the source digital file.		
Photo Definition	The type of the source digital file.		
Photo Help Text	-		
User Note(s)			
Implementation Note(s)	The IPTC recommends not to implement this property any longer.		
Field label/title	Physical type of original photo		
Cardinality	0..1	Basic data type	CV-code
Required CV	Values are: Scan from film {scanfilm}, scan from transparency (including slide) {scantransparancy}, scan from print {scanprint}, camera raw {cameraraw}, camera tiff {cameratiff}, camera jpeg {camerajpeg}		
Spec change history	Deprecated in v 1.1		
XMP implementation			
XMP namespace	Iptc4xmpExt	**XMP property id**	DigitalSourcefileType
XMP Value Type	URI	XMP Category	External
Implementation note(s)			
Maps to this IIM property			
XMP/IIM mapping note(s)			
G2 implementation			
Property name (XPath)	/newsItem/contentMeta/Iptc4xmpExt:digSourceFileTyp/@qcode		
Property-attribute(s)			
QCode scheme			
Implementation note(s)			

Generic Specification			3admin
Name	**Digital Source Type**		
Definition	The type of the source of this digital image		
Photo Definition	The type of the source of this digital image		
Photo Help Text	Select one of the values for identifying the type of the source of the digital image from the controlled vocabulary		
User Note(s)			
Implementation Note(s)			
Field label/title	Type of source for this photo		
Cardinality	0..1	Basic data type	CV-code
Required CV	Digital Source Type NewsCodes - http://cv.iptc.org/newscodes/digitalsourcetype/		
Spec change history	Added in v 1.1		
XMP implementation			
XMP namespace	Iptc4xmpExt	**XMP property id**	DigitalSourceType
XMP Value Type	URI	XMP Category	External
Implementation note(s)			
Maps to this IIM property			
XMP/IIM mapping note(s)			

G2 implementation	
Property name (XPath)	/newsItem/contentMeta/Iptc4xmpExt:digSourceType/@qcode
Property-attribute(s)	
QCode scheme	
Implementation note(s)	

Generic Specification		3admin
Name	**Event**	
Definition	Names or describes the specific event the content relates to.	
Photo Definition	Names or describes the specific event at which the photo was taken.	
Photo Help Text	Enter the name or description of the event where this image was taken	
User Note(s)	Examples are: a press conference, dedication ceremony, etc. If this is a sub-event of a larger event both can be provided by the field: e.g. XXXIX Olympic Summer Games (Beijing): opening ceremony. Unplanned events could be named by this property too.	
Implementation Note(s)		
Field label/title	Event	
Cardinality	0..1	Basic data type	free-text
Required CV		
Spec change history		

XMP implementation			
XMP namespace	Iptc4xmpExt	**XMP property id**	Event
XMP Value Type	Lang Alt	XMP Category	External
Implementation note(s)			
Maps to this IIM property			
XMP/IIM mapping note(s)			

G2 implementation	
Property name (XPath)	/newsItem/contentMeta/subject/
Property-attribute(s)	@type="cpnat:event"
QCode scheme	
Implementation note(s)	

Generic Specification		3admin
Name	**Image Registry Entry**	
Definition	Both a Registry Item Id and a Registry Organisation Id to record any registration of this item with a registry.	
Photo Definition	Both a Registry Item Id and a Registry Organisation Id to record any registration of this digital image with a registry.	
Photo Help Text	Enter IDs for this image and the registry issuing the image ID	
User Note(s)	Typically an id from a registry is negotiated and applied after the creation of the digital image.	
Implementation Note(s)	Any user interface implementation must show both sub-properties - Item Id and Organisation Id - as corresponding values. Further an input to both fields should be made mandatory.	
Field label/title	Registry Entry	
Cardinality	0..unbounded	Basic data type	structure
Required CV		
Spec change history		

XMP implementation			
XMP namespace	Iptc4xmpExt	**XMP property id**	RegistryId
XMP Value Type	bag RegistryEntryDetails	XMP Category	External
Implementation note(s)			
Maps to this IIM property			
XMP/IIM mapping note(s)			

G2 implementation	
Property name (XPath)	/newsItem/contentMeta/altId
Property-attribute(s)	
QCode scheme	
Implementation note(s)	

Generic Specification			3admin
Name	**Image Supplier**		
Definition	Identifies the most recent supplier of the item, who is not necessarily its owner or creator.		
Photo Definition	Identifies the most recent supplier of the image, who is not necessarily its owner or creator.		
Photo Help Text	Enter the identifier for the most recent supplier of this image - note that this might not be the creator or owner of the image		
User Note(s)	For identifying the supplier either a well known and/or registered company name or a URL of the company's web site may be used. This property succeeds the Provider property of IPTC Core 1.0 by its semantics as that Provider was renamed to Credit Line.		
Implementation Note(s)	This is a PLUS version 1.2 property included in the IPTC Extension schema.		
Field label/title	Image Supplier		
Cardinality	0..1	Basic data type	structure
Required CV			
Spec change history			
XMP implementation			
XMP namespace	plus	**XMP property id**	ImageSupplier
XMP Value Type	Seq ImageSupplierDetail	XMP Category	External
Implementation note(s)			
Maps to this IIM property			
XMP/IIM mapping note(s)			
G2 implementation			
Property name (XPath)	/newsItem/rightsInfo/ExtPoint		
Property-attribute(s)			
QCode scheme			
Implementation note(s)			

Generic Specification			3admin
Name	**Image Supplier Image ID**		
Definition	Optional identifier assigned by the Image Supplier to the image.		
Photo Definition	Optional identifier assigned by the Image Supplier to the image.		
Photo Help Text	Enter the unique identifier created by the image supplier.		
User Note(s)			
Implementation Note(s)	This is a PLUS version 1.2 property included in the IPTC Extension schema.		
Field label/title	Image Supplier Image Id		
Cardinality	0..1	Basic data type	string
Required CV			
Spec change history	Specs (July 2010): property added		
XMP implementation			
XMP namespace	plus	**XMP property id**	ImageSupplierImageID
XMP Value Type	Text	XMP Category	External
Implementation note(s)			
Maps to this IIM property			
XMP/IIM mapping note(s)			
G2 implementation			
Property name (XPath)			
Property-attribute(s)			
QCode scheme			
Implementation note(s)			

Generic Specification		3admin
Name	**IPTC Metadata Last Edited (Legacy)**	
Definition	The date and optionally time when any of the IPTC photo metadata fields has been last edited	
Photo Definition	The date and optionally time when any of the IPTC photo metadata fields has been last edited.	
Photo Help Text	-	
User Note(s)	The public use of this property is deprecated by IPTC Extension version 1.1. It may only still be used by a private user interface for a use scoped to a company. If used this field should be a timestamp of the latest change applied to any of the fields.	

	One may infer no metadata value has been applied after this date.		
Implementation Note(s)	The value of this property should never be set by software. XMP-aware software should reflect any changes to metadata by the xmp:MetadataDate property of the XMP Basic scheme.		
Field label/title	IPTC Fields Last Edited		
Cardinality	0..1	Basic data type	DateTime
Required CV			
Spec change history	Legacy status assigned in v 1.1		
XMP implementation			
XMP namespace	Iptc4xmpExt	**XMP property id**	IptcLastEdited
XMP Value Type	Date	XMP Category	External/Internal
Implementation note(s)	The value of this property can either be entered by the user or be set by a metadata editing software		
Maps to this IIM property			
XMP/IIM mapping note(s)			
G2 implementation			
Property name (XPath)			
Property-attribute(s)			
QCode scheme			
Implementation note(s)			

Generic Specification			3admin
Name	**Location created**		
Definition	The location the content of the item was created.		
Photo Definition	The location the photo was taken.		
Photo Help Text	Enter the details about a location where this image was created		
User Note(s)	If the location in the image is different from the location the photo was taken the IPTC Extension property Location Shown in the Image should be used.		
Implementation Note(s)			
Field label/title	Location Created		
Cardinality	0..1	Basic data type	structure
Required CV			
Spec change history			
XMP implementation			
XMP namespace	Iptc4xmpExt	**XMP property id**	LocationCreated
XMP Value Type	Bag LocationDetails	XMP Category	External
Implementation note(s)			
Maps to this IIM property			
XMP/IIM mapping note(s)			
G2 implementation			
Property name (XPath)	/newsItem/contenteMeta/located/POIdetails/contactInfo/address/....(locality,area,country)		
Property-attribute(s)			
QCode scheme			
Implementation note(s)			

Generic Specification			3admin
Name	**Max Avail Height**		
Definition	The maximum available height in pixels of the original photo from which this photo has been derived by downsizing.		
Photo Definition	The maximum available height in pixels of the original photo from which this photo has been derived by downsizing.		
Photo Help Text	Enter the maximum available height in pixels of the original photo from which this photo has been derived by downsizing		
User Note(s)			
Implementation Note(s)			
Field label/title	Maximum available height		
Cardinality	0..1	Basic data type	integer
Required CV			
Spec change history			
XMP implementation			
XMP namespace	Iptc4xmpExt	**XMP property id**	MaxAvailHeight
XMP Value Type	Integer	XMP Category	External

Implementation note(s)	
Maps to this IIM property	
XMP/IIM mapping note(s)	

G2 implementation	
Property name (XPath)	/newsItem/contentSet[rendition='rnd:highRes']/height
Property-attribute(s)	
QCode scheme	
Implementation note(s)	Only mapping out of G2!

Generic Specification			3admin
Name	**Max Avail Width**		
Definition	The maximum available width in pixels of the original photo from which this photo has been derived by downsizing.		
Photo Definition	The maximum available width in pixels of the original photo from which this photo has been derived by downsizing.		
Photo Help Text	Enter the maximum available width in pixels of the original photo from which this photo has been derived by downsizing		
User Note(s)			
Implementation Note(s)			
Field label/title	Maximum available width		
Cardinality	0..1	Basic data type	integer
Required CV			
Spec change history			

XMP implementation			
XMP namespace	Iptc4xmpExt	**XMP property id**	MaxAvailWidth
XMP Value Type	Integer	XMP Category	External
Implementation note(s)			
Maps to this IIM property			
XMP/IIM mapping note(s)			

G2 implementation	
Property name (XPath)	/newsItem/contentSet[rendition='rnd:highRes']/width
Property-attribute(s)	
QCode scheme	
Implementation note(s)	Only mapping out of G2!

Generic Specification			3admin
Name	**PLUS Version**		
Definition	The version number of the PLUS standards in place at the time of the transaction.		
Photo Definition	The version number of the PLUS standards in place at the time of the transaction.		
Photo Help Text	-		
User Note(s)	In the event of a misunderstanding between the parties, PLUS Version provides a reference to the version of the PLUS standards that was in place at the time of the transaction. PLUS standards are updated periodically.		
Implementation Note(s)	This property was included into the IPTC Extension schema from PLUS version 1.2 as all other PLUS properties. To reflect this the value of "PLUS Version" should be set to the string "1.2.0"		
Field label/title	PLUS Version		
Cardinality	0..1	Basic data type	
Required CV			
Spec change history			

XMP implementation			
XMP namespace	plus	**XMP property id**	Version
XMP Value Type	Text	XMP Category	Internal
Implementation note(s)			
Maps to this IIM property			
XMP/IIM mapping note(s)			

G2 implementation	
Property name (XPath)	
Property-attribute(s)	
QCode scheme	
Implementation note(s)	

Generic Specification			4rightrel
Name	Copyright Owner		
Definition	Owner or owners of the copyright in the licensed image.		
Photo Definition	Owner or owners of the copyright in the licensed image.		
Photo Help Text	Enter the owner or owners of the copyright in the licensed image		
User Note(s)	Serves to identify the rights holder/s for the image. The Copyright Owner, Image Creator and Licensor may be the same or different entities.		
Implementation Note(s)	This is a PLUS version 1.2 property included in the IPTC Extension schema.		
Field label/title	Copyright owner		
Cardinality	0..3	Basic data type	structure
Required CV			
Spec change history			
XMP implementation			
XMP namespace	plus	**XMP property id**	CopyrightOwner
XMP Value Type	Seq CopyrightOwnerDetail	XMP Category	External
Implementation note(s)			
Maps to this IIM property			
XMP/IIM mapping note(s)			
G2 implementation			
Property name (XPath)	/newsItem/rightsInfo/CopyrightHolder/@qcode + /name		
Property-attribute(s)			
QCode scheme			
Implementation note(s)			

Generic Specification			4rightrel
Name	Image Creator		
Definition	Creator or creators of the image.		
Photo Definition	Creator or creators of the image		
Photo Help Text	Enter details about the creator or creators of this image		
User Note(s)	The creator can be additionally expressed in free-text using the IPTC Core Creator field. In many countries, the Image Creator must be attributed in association with any use of the image. The Image Creator, Copyright Owner, Image Supplier and Licensor may be the same or different entities.		
Implementation Note(s)	This is a PLUS version 1.2 property included in the IPTC Extension schema.		
Field label/title	Image Creator		
Cardinality	0..3	Basic data type	structure
Required CV			
Spec change history			
XMP implementation			
XMP namespace	plus	**XMP property id**	ImageCreator
XMP Value Type	Seq ImageCreatorDetail	XMP Category	External
Implementation note(s)			
Maps to this IIM property			
XMP/IIM mapping note(s)			
G2 implementation			
Property name (XPath)	/newsItem/contentMeta/creator/@qcode + /name		
Property-attribute(s)			
QCode scheme			
Implementation note(s)			

Generic Specification			4rightrel
Name	Licensor		
Definition	A person or company that should be contacted to obtain a licence for using the item or who has licensed the item.		
Photo Definition	A person or company that should be contacted to obtain a licence for using the item or who has licensed the item.		
Photo Help Text	Enter the person or company that should be contacted for obtaining a license for this image		
User Note(s)			
Implementation Note(s)	This is a PLUS version 1.2 property included in the IPTC Extension schema.		
Field label/title	Licensor		
Cardinality	0..3	Basic data type	struct

| Required CV | |
| Spec change history | |

XMP implementation	
XMP namespace	plus	**XMP property id**	Licensor
XMP Value Type	bag LicensorDetail	XMP Category	External
Implementation note(s)	
Maps to this IIM property	
XMP/IIM mapping note(s)	

G2 implementation	
Property name (XPath)	/newsItem/rightsInfo/ExtPoint
Property-attribute(s)	
QCode scheme	
Implementation note(s)	

Generic Specification		4rightrel
Name	**Minor Model Age Disclosure**	
Definition	Age of the youngest model pictured in the image, at the time that the image was made.	
Photo Definition	Age of the youngest model pictured in the image, at the time that the image was made.	
Photo Help Text	Enter the age of the youngest model pictured in this image, at the time that this image was made.	
User Note(s)	This age should not be displayed to the public on open web portals and the like. But it may be used by image repositories in a B2B enviroment.	
Implementation Note(s)	This is a PLUS version 1.2 property included in the IPTC Extension schema.	
Field label/title	Minor Model Age Disclosure	
Cardinality	0..1	Basic data type	CV-code
Required CV	CV defined by PLUS	
Spec change history	Specs (July 2010): XMP Value type corrected	

XMP implementation	
XMP namespace	plus	**XMP property id**	MinorModelAgeDisclosure
XMP Value Type	URL	XMP Category	External
Implementation note(s)	
Maps to this IIM property	
XMP/IIM mapping note(s)	

G2 implementation	
Property name (XPath)	/newsItem/rightsInfo/ExtPoint
Property-attribute(s)	
QCode scheme	
Implementation note(s)	

Generic Specification		4rightrel
Name	**Model Release Id**	
Definition	Optional identifier associated with each Model Release.	
Photo Definition	Optional identifier associated with each Model Release.	
Photo Help Text	Enter an identifier for each Model Release	
User Note(s)		
Implementation Note(s)	This is a PLUS version 1.2 property included in the IPTC Extension schema.	
Field label/title	Model Release Id	
Cardinality	0..unbounded	Basic data type	Identifier
Required CV		
Spec change history	Specs (July 2010): definition aligned with PLUS specs	

XMP implementation	
XMP namespace	plus	**XMP property id**	ModelReleaseID
XMP Value Type	Bag Text	XMP Category	External
Implementation note(s)	
Maps to this IIM property	
XMP/IIM mapping note(s)	

G2 implementation	
Property name (XPath)	/newsItem/rightsInfo/ExtPoint
Property-attribute(s)	
QCode scheme	
Implementation note(s)	

Generic Specification			4rightrel
Name	**Model Release Status**		
Definition	Summarizes the availability and scope of model releases authorizing usage of the likenesses of persons appearing in the photograph.		
Photo Definition	Summarises the availability and scope of model releases authorising usage of the likenesses of persons appearing in the photograph.		
Photo Help Text	Select one of the values for summarising the availability and scope of model releases authorising usage of the likenesses of persons appearing in the photograph		
User Note(s)	It is recommended to apply the PLUS controlled value Unlimited Model Releases (MR-UMR) very carefully and to check the wording of the model release thoroughly before applying it.		
Implementation Note(s)	This is a PLUS version 1.2 property included in the IPTC Extension schema.		
Field label/title	Model Release Status		
Cardinality	0..1	Basic data type	CV-code
Required CV	CV defined by PLUS		
Spec change history	Specs (July 2010): XMP Value type corrected		
XMP implementation			
XMP namespace	plus	**XMP property id**	ModelReleaseStatus
XMP Value Type	URL	XMP Category	External
Implementation note(s)			
Maps to this IIM property			
XMP/IIM mapping note(s)			
G2 implementation			
Property name (XPath)	/newsItem/rightsInfo/ExtPoint		
Property-attribute(s)			
QCode scheme			
Implementation note(s)			

Generic Specification			4rightrel
Name	**Property Release Id**		
Definition	Optional identifier associated with each Property Release.		
Photo Definition	Optional identifier associated with each Property Release.		
Photo Help Text	Enter an identifier for each Property Release		
User Note(s)			
Implementation Note(s)	This is a PLUS version 1.2 property included in the IPTC Extension schema.		
Field label/title	Property Release Id		
Cardinality	0..unbounded	Basic data type	Identifier
Required CV			
Spec change history	Specs (July 2010): definition aligned with PLUS specs		
XMP implementation			
XMP namespace	plus	**XMP property id**	PropertyReleaseID
XMP Value Type	Bag Text	XMP Category	External
Implementation note(s)			
Maps to this IIM property			
XMP/IIM mapping note(s)			
G2 implementation			
Property name (XPath)	/newsItem/rightsInfo/ExtPoint		
Property-attribute(s)			
QCode scheme			
Implementation note(s)			

Generic Specification		4rightrel
Name	**Property Release Status**	
Definition	Summarises the availability and scope of property releases authorizing usage of the properties appearing in the photograph.	
Photo Definition	Summarises the availability and scope of property releases authorising usage of the properties appearing in the photograph.	
Photo Help Text	Select one of the values for summarising the availability and scope of property releases authorising usage of the properties appearing in the photograph	
User Note(s)	It is recommended to apply the value PR-UPR very carefully and to check the wording of the property release thoroughly before applying it.	
Implementation Note(s)	This is a PLUS version 1.2 property included in the IPTC Extension schema.	

Field label/title	Property Release Status		
Cardinality	0..1	Basic data type	CV-code
Required CV	CV defined by PLUS		
Spec change history	Specs (July 2010): XMP Value type corrected		
XMP implementation			
XMP namespace	plus	**XMP property id**	PropertyReleaseStatus
XMP Value Type	URL	XMP Category	External
Implementation note(s)			
Maps to this IIM property			
XMP/IIM mapping note(s)			
G2 implementation			
Property name (XPath)	/newsItem/rightsInfo/ExtPoint		
Property-attribute(s)			
QCode scheme			
Implementation note(s)			

Metadata Structure: Artwork or Object in the Image Details

Generic Specification			9type-artobj
Name	**Artwork or Object in the Image Details structure {data type}**		
Definition	A structured datatype for details about artwork or an object in an image. Includes a Copyright Notice, a Creator, a Date Created, a Source, a Source Inventory Number and a Title.		
Photo Definition	A structured datatype for details about artwork or an object in an image. Includes a Copyright Notice, a Creator, a Date Created, a Source, a Source Inventory Number and a Title.		
Photo Help Text	-		
User Note(s)			
Implementation Note(s)			
Field label/title	N/A		
Cardinality		Basic data type	structure
Required CV			
Spec change history			
XMP implementation			
XMP namespace	Iptc4xmpExt	**XMP property id**	ArtworkOrObjectDetails
XMP Value Type	structure	XMP Category	External
Implementation note(s)			
Maps to this IIM property			
XMP/IIM mapping note(s)			
G2 implementation			
Property name (XPath)			
Property-attribute(s)			
QCode scheme			
Implementation note(s)	Mapping rules are pending.		

Generic Specification			9type-artobj
Name	**Copyright Notice {Artwork or Object detail}**		
Definition	Contains any necessary copyright notice for claiming the intellectual property for artwork or an object in the image and should identify the current owner of the copyright of this work with associated intellectual property rights.		
Photo Definition	Contains any necessary copyright notice for claiming the intellectual property for artwork or an object in the image and should identify the current owner of the copyright of this work with associated intellectual property rights.		
Photo Help Text	Enter any necessary copyright notice for claiming the intellectual property for artwork or an object in this image		
User Note(s)			
Implementation Note(s)			
Field label/title	(Artwork or Object detail:) Copyright notice		
Cardinality	0..1	Basic data type	free-text
Required CV			
Spec change history			

XMP implementation			
XMP namespace	Iptc4xmpExt	**XMP property id**	AOCopyrightNotice
XMP Value Type	Text	XMP Category	External
Implementation note(s)			
Maps to this IIM property			
XMP/IIM mapping note(s)			

G2 implementation	
Property name (XPath)	
Property-attribute(s)	
QCode scheme	
Implementation note(s)	Mapping rules are pending.

Generic Specification			9type-artobj
Name	**Creator {Artwork or Object detail}**		
Definition	Contains the name of the artist who has created artwork or an object in the image.		
Photo Definition	Contains the name of the artist who has created artwork or an object in the image. In cases where the artist could or should not be identified the name of a company or organisation may be appropriate.		
Photo Help Text	Enter the name of the artist who has created artwork or an object in this image		
User Note(s)			
Implementation Note(s)			
Field label/title	(Artwork or Object detail:) Creator		
Cardinality	0..unbounded	Basic data type	string
Required CV			
Spec change history			

XMP implementation			
XMP namespace	Iptc4xmpExt	**XMP property id**	AOCreator
XMP Value Type	Seq ProperName	XMP Category	External
Implementation note(s)			
Maps to this IIM property			
XMP/IIM mapping note(s)			

G2 implementation	
Property name (XPath)	
Property-attribute(s)	
QCode scheme	
Implementation note(s)	Mapping rules are pending.

Generic Specification			9type-artobj
Name	**Date Created {Artwork or Object detail}**		
Definition	Designates the date and optionally the time the artwork or object in the image was created. This relates to artwork or objects with associated intellectual property rights.		
Photo Definition	Designates the date and optionally the time the artwork or object in the image was created. This relates to artwork or objects with associated intellectual property rights.		
Photo Help Text	Enter the date and optionally the time when the artwork or object in this image was created		
User Note(s)			
Implementation Note(s)			
Field label/title	(Artwork or Object detail:) Date created		
Cardinality	0..1	Basic data type	DateTime (preferred: truncated DateTime)
Required CV			
Spec change history			

XMP implementation			
XMP namespace	Iptc4xmpExt	**XMP property id**	AODateCreated
XMP Value Type	Date	XMP Category	External
Implementation note(s)			
Maps to this IIM property			
XMP/IIM mapping note(s)			

G2 implementation	
Property name (XPath)	
Property-attribute(s)	

QCode scheme	
Implementation note(s)	Mapping rules are pending.

Generic Specification				9type-artobj
Name	**Source {Artwork or Object detail}**			
Definition	The organisation or body holding and registering the artwork or object in the image for inventory purposes.			
Photo Definition	The organisation or body holding and registering the artwork or object in the image for inventory purposes.			
Photo Help Text	Enter the name of the organisation or body holding and registering the artwork or object in this image for inventory purposes			
User Note(s)				
Implementation Note(s)				
Field label/title	(Artwork or Object detail:) Source			
Cardinality	0..1		Basic data type	free-text
Required CV				
Spec change history				
XMP implementation				
XMP namespace	Iptc4xmpExt		**XMP property id**	AOSource
XMP Value Type	Text		XMP Category	External
Implementation note(s)				
Maps to this IIM property				
XMP/IIM mapping note(s)				
G2 implementation				
Property name (XPath)				
Property-attribute(s)				
QCode scheme				
Implementation note(s)	Mapping rules are pending.			

Generic Specification				9type-artobj
Name	**Source Inventory Number {Artwork or Object detail}**			
Definition	The inventory number issued by the organisation or body holding and registering the artwork or object in the image.			
Photo Definition	The inventory number issued by the organisation or body holding and registering the artwork or object in the image.			
Photo Help Text	Enter the inventory number issued by the organisation or body holding and registering the artwork or object in this image			
User Note(s)				
Implementation Note(s)				
Field label/title	(Artwork or Object detail:) Source inventory number			
Cardinality	0..1		Basic data type	string
Required CV				
Spec change history				
XMP implementation				
XMP namespace	Iptc4xmpExt		**XMP property id**	AOSourceInvNo
XMP Value Type	Text		XMP Category	External
Implementation note(s)				
Maps to this IIM property				
XMP/IIM mapping note(s)				
G2 implementation				
Property name (XPath)				
Property-attribute(s)				
QCode scheme				
Implementation note(s)	Mapping rules are pending.			

Generic Specification		9type-artobj
Name	**Title {Artwork or Object detail}**	
Definition	A reference for the artwork or object in the image.	
Photo Definition	A reference for the artwork or object in the image.	
Photo Help Text	Enter the verbal and human readable name of the artwork or object in this image	
User Note(s)		
Implementation Note(s)		

Field label/title	(Artwork or Object detail:) Title		
Cardinality	0..1	Basic data type	free-text
Required CV			
Spec change history			
XMP implementation			
XMP namespace	Iptc4xmpExt	**XMP property id**	AOTitle
XMP Value Type	Lang Alt	XMP Category	External
Implementation note(s)			
Maps to this IIM property			
XMP/IIM mapping note(s)			
G2 implementation			
Property name (XPath)			
Property-attribute(s)			
QCode scheme			
Implementation note(s)	Mapping rules are pending.		

Metadata Structure: Location Details

Generic Specification			9type-location
Name	**Location Details structure {data type}**		
Definition	A structured datatype for details of a location. It includes a Sublocation, a City, a Province or State, a Country (Name and ISO-Code) and a World Region.		
Photo Definition	A structured datatype for details of a location. It includes a Sublocation, a City, a Province or State, a Country (Name and ISO-Code) and a World Region.		
Photo Help Text	-		
User Note(s)			
Implementation Note(s)			
Field label/title	N/A		
Cardinality		Basic data type	structure
Required CV			
Spec change history			
XMP implementation			
XMP namespace	Iptc4xmpExt	**XMP property id**	LocationDetails
XMP Value Type	Text	XMP Category	External
Implementation note(s)			
Maps to this IIM property			
XMP/IIM mapping note(s)			
G2 implementation			
Property name (XPath)			
Property-attribute(s)			
QCode scheme			
Implementation note(s)			

Generic Specification			9type-location
Name	**City {location detail}**		
Definition	Name of the city of a location. This element is at the fourth level of a top-down geographical hierarchy.		
Photo Definition	Name of the city of a location. This element is at the fourth level of a top-down geographical hierarchy.		
Photo Help Text	Enter the name of the City		
User Note(s)			
Implementation Note(s)			
Field label/title	(Location detail:) City		
Cardinality	0..1	Basic data type	string
Required CV			
Spec change history			
XMP implementation			
XMP namespace	Iptc4xmpExt	**XMP property id**	City
XMP Value Type	Text	XMP Category	External
Implementation note(s)			
Maps to this IIM property			

XMP/IIM mapping note(s)	
G2 implementation	
Property name (XPath)	/newsItem/contentMeta/subject/
Property-attribute(s)	@type="cpnat:geoArea"+@facet="fct:city"
QCode scheme	
Implementation note(s)	Mapping for Location Shown in the Image only

Generic Specification		9type-location
Name	**Country ISO-Code {location detail}**	
Definition	The ISO code of a country of a location. This element is at the second level of a top-down geographical hierarchy.	
Photo Definition	The ISO code of a country of a location. This element is at the second level of a top-down geographical hierarchy.	
Photo Help Text	Enter the 2 or 3 letter ISO 3166 Country Code of the Country	
User Note(s)		
Implementation Note(s)		
Field label/title	(Location detail:) Country ISO-Code	
Cardinality	0..1	Basic data type	CV-code
Required CV	ISO 3166-1 - 2 or 3 characters (see Definition)	
Spec change history	Specs (201007): XMP ValueType corrected	

XMP implementation			
XMP namespace	Iptc4xmpExt	**XMP property id**	CountryCode
XMP Value Type	closed choice	XMP Category	External
Implementation note(s)	Note 1: an implementer would have to derive from the length of the value string whether this is the country code from the two or three letter scheme as no explicit indication can be provided.		
Maps to this IIM property			
XMP/IIM mapping note(s)			

G2 implementation	
Property name (XPath)	/newsItem/contentMeta/subject/@qcode
Property-attribute(s)	@type="cpnat:geoArea"+@facet="fct:country"
QCode scheme	
Implementation note(s)	Mapping for Location Shown in the Image only

Generic Specification		9type-location
Name	**Country Name {location detail}**	
Definition	The name of a country of a location. This element is at the second level of a top-down geographical hierarchy.	
Photo Definition	The name of a country of a location. This element is at the second level of a top-down geographical hierarchy.	
Photo Help Text	Enter the name of the Country	
User Note(s)		
Implementation Note(s)		
Field label/title	(Location detail:) Country Name	
Cardinality	0..1	Basic data type	string
Required CV		
Spec change history		

XMP implementation			
XMP namespace	Iptc4xmpExt	**XMP property id**	CountryName
XMP Value Type	Text	XMP Category	External
Implementation note(s)			
Maps to this IIM property			
XMP/IIM mapping note(s)			

G2 implementation	
Property name (XPath)	/newsItem/contentMeta/subject/name
Property-attribute(s)	@type="cpnat:geoArea"+@facet="fct:country"
QCode scheme	
Implementation note(s)	Mapping for Location Shown in the Image only

Generic Specification			9type-location
Name	**Province or State {location detail}**		
Definition	The name of a subregion of a country - a province or state - of a location. This element is at the third level of a top-down geographical hierarchy.		
Photo Definition	The name of a subregion of a country - a province or state - of a location. This element is at the third level of a top-down geographical hierarchy.		
Photo Help Text	Enter the name of the Province or State		
User Note(s)			
Implementation Note(s)			
Field label/title	(Location detail:) Province/State		
Cardinality	0..1	Basic data type	string
Required CV			
Spec change history			
XMP implementation			
XMP namespace	Iptc4xmpExt	**XMP property id**	ProvinceState
XMP Value Type	Text	XMP Category	External
Implementation note(s)			
Maps to this IIM property			
XMP/IIM mapping note(s)			
G2 implementation			
Property name (XPath)	/newsItem/contentMeta/subject/		
Property-attribute(s)	@type="cpnat:geoArea"+@facet="fct:provState"		
QCode scheme			
Implementation note(s)	Mapping for Location Shown in the Image only		

Generic Specification			9type-location
Name	**Sublocation {location detail}**		
Definition	Name of a sublocation. This sublocation name could either be the name of a sublocation to a city or the name of a well known location or (natural) monument outside a city. In the sense of a sublocation to a city this element is at the fifth level of a top-down geographical hierarchy.		
Photo Definition	Name of a sublocation. This sublocation name could either be the name of a sublocation to a city or the name of a well known location or (natural) monument outside a city. In the sense of a sublocation to a city this element is at the fifth level of a top-down geographical hierarchy.		
Photo Help Text	Enter the name of the Sublocation		
User Note(s)			
Implementation Note(s)			
Field label/title	(Location detail:) Sublocation		
Cardinality	0..1	Basic data type	string
Required CV			
Spec change history			
XMP implementation			
XMP namespace	Iptc4xmpExt	**XMP property id**	Sublocation
XMP Value Type	Text	XMP Category	External
Implementation note(s)			
Maps to this IIM property			
XMP/IIM mapping note(s)			
G2 implementation			
Property name (XPath)	/newsItem/contentMeta/subject/		
Property-attribute(s)	@type="cpnat:geoArea"+@facet="fct:subLoc"		
QCode scheme			
Implementation note(s)	Mapping for Location Shown in the Image only		

Generic Specification			9type-location
Name	**World Region {location detail}**		
Definition	The name of a world region of a location. This element is at the first (topI) level of a top-down geographical hierarchy.		
Photo Definition	The name of a world region of a location. This element is at the first (topI) level of a top-down geographical hierarchy.		
Photo Help Text	Enter the name of the World Region		

User Note(s)			
Implementation Note(s)			
Field label/title	(Location detail:) World Region		
Cardinality	0..1	Basic data type	string
Required CV			
Spec change history			
XMP implementation			
XMP namespace	Iptc4xmpExt	**XMP property id**	WorldRegion
XMP Value Type	Text	XMP Category	External
Implementation note(s)			
Maps to this IIM property			
XMP/IIM mapping note(s)			
G2 implementation			
Property name (XPath)	/newsItem/contentMeta/subject/		
Property-attribute(s)	@type="cpnat:geoArea"+@facet="fct:worldReg"		
QCode scheme			
Implementation note(s)			

Metadata Structure: Registry Entry Details

Generic Specification			9type-registryid
Name	**Registry Entry Details structure {data type}**		
Definition	A structured datatype for an entry in a registry, includes the id issued by the registry and the registry's id.		
Photo Definition	A structured datatype for an entry in a registry, includes the id for the image issued by the registry and the registry's id.		
Photo Help Text	-		
User Note(s)			
Implementation Note(s)			
Field label/title	N/A		
Cardinality		Basic data type	structure
Required CV			
Spec change history			
XMP implementation			
XMP namespace	Iptc4xmpExt	**XMP property id**	RegistryEntryDetails
XMP Value Type	structure	XMP Category	External
Implementation note(s)			
Maps to this IIM property			
XMP/IIM mapping note(s)			
G2 implementation			
Property name (XPath)			
Property-attribute(s)			
QCode scheme			
Implementation note(s)			

Generic Specification			9type-registryid
Name	**Item Id {registry entry detail}**		
Definition	A unique identifier created by a registry and applied by the creator of the item. This value shall not be changed after being applied. This identifier is linked to a corresponding Registry Organisation Identifier.		
Photo Definition	A unique identifier created by a registry and applied by the creator of the digital image. This value shall not be changed after being applied. This identifier is linked to a corresponding Registry Organisation Identifier.		
Photo Help Text	Enter the unique identifier created by a registry and applied by the creator of the digital image. This value shall not be changed after being applied.		
User Note(s)	This identifier may be globally unique by itself, but it must be unique for the issuing registry.		
Implementation Note(s)			
Field label/title	(Registry Entry detail:) Item Identifier		
Cardinality	1	Basic data type	string
Required CV			

Spec change history	
XMP implementation	

XMP namespace	Iptc4xmpExt	**XMP property id**	RegItemId
XMP Value Type	Text	XMP Category	External
Implementation note(s)			
Maps to this IIM property			
XMP/IIM mapping note(s)			

G2 implementation	
Property name (XPath)	/newsItem/contentMeta/altId
Property-attribute(s)	
QCode scheme	
Implementation note(s)	

Generic Specification			9type-registryid
Name	**Organisation Id {registry entry detail}**		
Definition	An identifier for the registry which issued the corresponding Registry Image Id.		
Photo Definition	An identifier for the registry which issued the corresponding Registry Image Id.		
Photo Help Text	Enter the identifier for the registry which issued the corresponding Registry Image ID		
User Note(s)			
Implementation Note(s)			
Field label/title	(Registry Entry detail:) Organisation Identifier		
Cardinality	1	Basic data type	string
Required CV			
Spec change history			

XMP implementation	

XMP namespace	Iptc4xmpExt	**XMP property id**	RegOrgId
XMP Value Type	Text	XMP Category	External
Implementation note(s)			
Maps to this IIM property			
XMP/IIM mapping note(s)			

G2 implementation	
Property name (XPath)	/newsItem/contentMeta/altId/@type="RegOrgId"
Property-attribute(s)	
QCode scheme	
Implementation note(s)	

References

Name	Source
Adobe XMP	Adobe Extensible Metadata Platform (XMP) http://www.adobe.com/products/xmp/ Latest specification as of April 2010 This document includes the specification of the metadata schemas Dublin Core, XMP Rights management and Photoshop which are referenced in this specification.
DC	Dublin Core metadata schema: http://www.dublincore.org/
IPTC G2-Standards	IPTC G2-Standards: EventsML-G2 and NewsML-G2 (as of 2010) http://www.iptc.org/G2-Standards/
IPTC IIM	IPTC Information Interchange Model: http://www.iptc.org/IIM/ and http://www.iptc.org/std/IIM/4.1/specification/IIMV4.1.pdf
PhMdWP2007	IPTC Photo Metadata White Paper 2007 http://www.iptc.org/goto?phmdwp2007
PLUS	Picture Licensing Universal System – PLUS: http://www.useplus.org PLUS specifications: http://www.useplus.com/useplus/standards.asp
MetadataWG	Guidelines for Handling Image Metadata v 1.1 http://www.metadataworkinggroup.com/specs/

Addendum 1:
Persistent Technical Photo Metadata – a recommendation

Objectives for Technical Photo Metadata
Technical photo metadata within the scope of this paper are:
- Digital camera manufacturers' metadata, including all Exif and MakerNote metadata that record the camera settings and image capture conditions
- ICC metadata in the form of ICC profiles, if embedded, that define the colours of the image in a standard way
- Other third-party application metadata, for example, Photoshop and Fotoware metadata, and face detection metadata
- File format metadata like that in Exif DCF2, camera RAW, JPEG 2000 or JPEG XR.

All these forms of technical metadata should be persistent, along with metadata contained in the IPTC Core, IPTC Extension or IIM metadata.

Why do we need persistent technical metadata?
Technical metadata must be viewed as being just as important as descriptive (content oriented) metadata standards defined by the IPTC. Both types of metadata are essential to the business of picture agencies, news reporting, and cultural heritage works.

The prime reason to preserve and maintain technical metadata is to take advantage of technical developments in digital photography. Workflows need to be faster and more efficient, saving time and money whenever and wherever possible, image quality needs to be higher, and search and retrieval for images needs to be more discerning and more fruitful.
The digital present and the digital future require a general all-round improvement in the use of resources and digital assets.
A more complete discussion regarding the benefits of keeping technical metadata is given in an extended version of "Persisting Technical Photo Metadata" available on the Ifra web site[i]. After reading this document, it should become clear that there is much to be gained by keeping all metadata and the highest advantages can be obtained at low cost through automatic software procedures.

Photo Workflows
Whenever photos are captured by digital cameras, metadata is written into the image file. Subsequently, additional metadata is written by the photographer, picture desk editor, picture librarians and also automatically by application and system software.
Software applications need to be aware of metadata that has been added to the image by, firstly, the digital camera and, secondly, by other people or another application, so that a complete record of metadata is preserved and persisted with each image as it passes through every stage of the workflow.
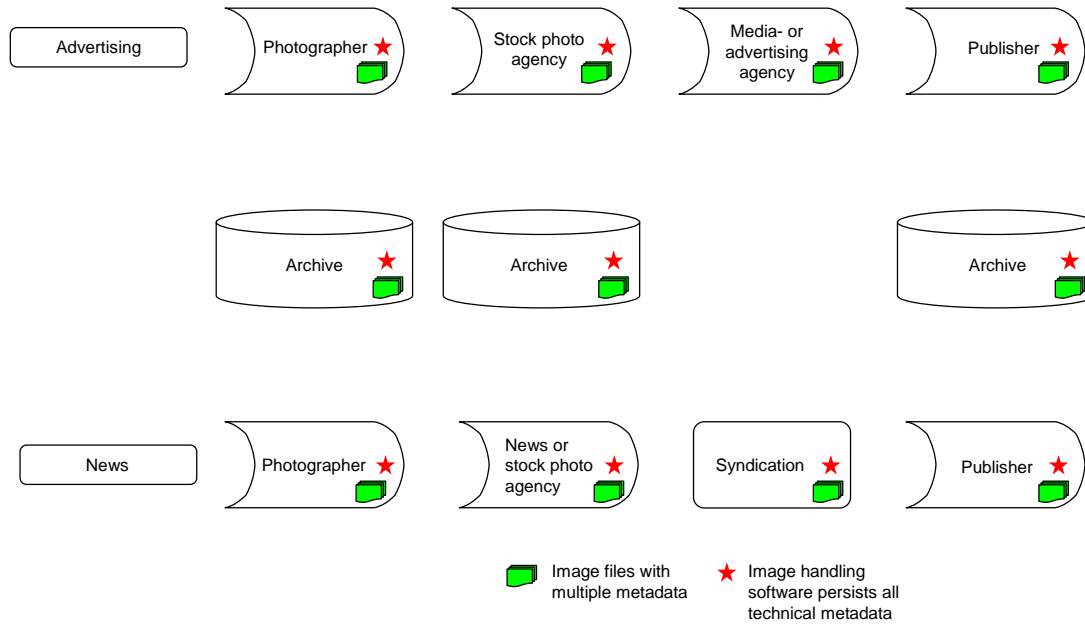
How to persist metadata in different workflows
Workflow diagrams are shown here for the persistence of technical metadata for:
   a) the general case
   b) a news picture agency
   c) a newspaper
The workflow diagrams have red asterisks to show where metadata can be invalidated or lost, if the software application does not fully support technical metadata by updating certain fields after processing and correctly writing the metadata into the image file on saving.
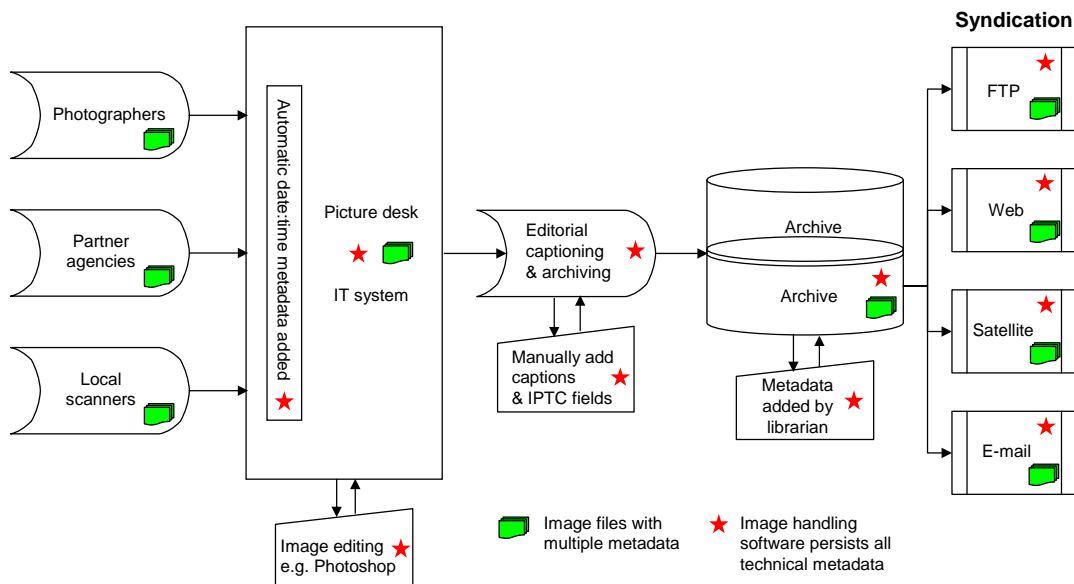
Generalised Photo Value Chain

At every stage in the value chain, starting with downloading images from the camera to a storage device, and at every further stage of picture annotation and editing, only software that persists and maintains all photo metadata should be used.
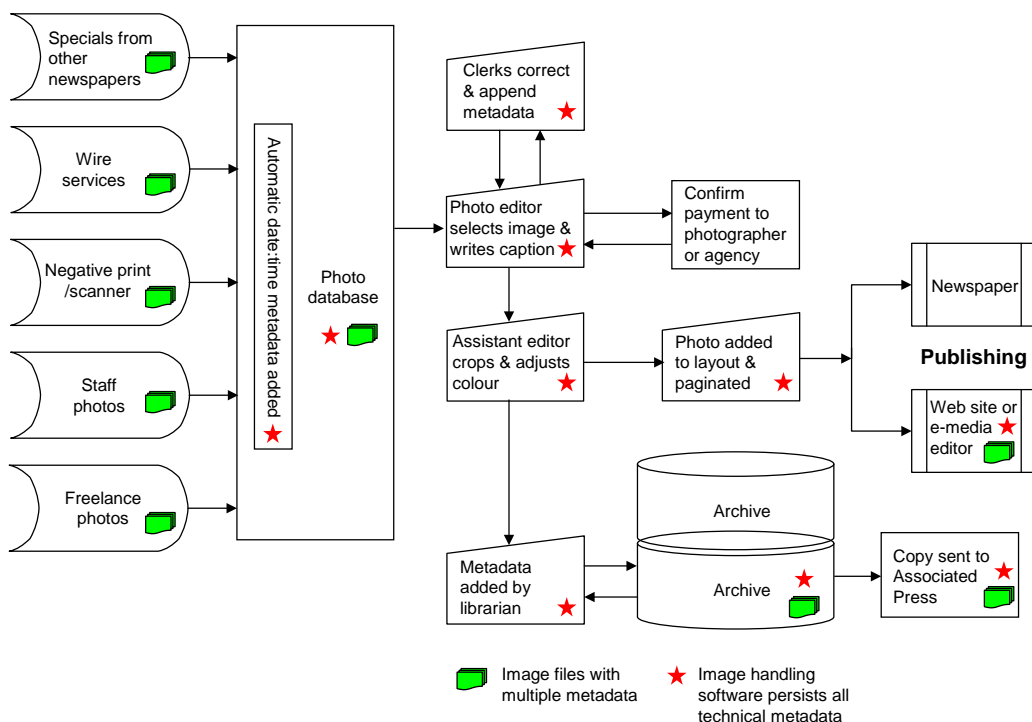
News Agency Workflow

(example from dpa, Deutsche Presse-Agentur)

U.S. Newspaper's Workflow

(a typical example)

Recommendations

1. "Persisting technical metadata" means that all metadata properties and their values relating to:
   - <u>Basic file management</u> (e.g. file type, image dimensions in pixels, orientation, image data compression parameters) MUST BE PERSISTED AND MAINTAINED to record the current state of the image
   - <u>Administration</u> (e.g. date and time of capture, creator, copyright holder, GPS, unique image ID) MUST BE PERSISTED AND MAINTAINED
   - <u>Camera settings</u> (e.g. auto- or manual exposure, auto- or manual focus, colour space and colour profile, ISO setting, scene type, camera ID, lens ID) MUST BE PERSISTED AND NOT CHANGED
   - <u>Image capture conditions</u> (e.g. exposure time, lens aperture, distance to subject) MUST BE PERSISTED AND NOT CHANGED, and
   - <u>Descriptions</u> (e.g. comments, title) are to be added and ARE OPTIONALLY PERSISTED AND EDITED.

2. All metadata (descriptive and technical), should be persisted in accordance with the first recommendation, above, as long as each image file remains digitally accessible. All JPEG-based Exif, TIFF/EP and camera RAW files contain technical camera metadata. PDF files also contain technical metadata, as do the new generation of file formats, JPEG 2000 and JPEG XR.

3. All technical metadata should be persisted, even if they are not required for use by the current application in a workflow step. Any application should not be limited by inadequate metadata processing of software in a previous workflow step. It should not remove any property.

4. Versioning metadata, to historically record all modifications to the image, is optional. Similarly, an application must be able to update standard metadata, where appropriate.

5. If the picture data is edited, for example through orientation, colour characterisation, sizing or cropping, then the pertinent metadata (e.g. pixel height and width) and the thumbnail image need to be updated in the file to be commensurate with the main picture data.

6. Image suppliers should persist all of the technical metadata, both standard and proprietary, in its existing and standardised form within the respective image files (Exif, TIFF, JPEG 2000, RAW, PDF, DNG etc.). Not just one schema for metadata has to be supported today, but several - IPTC IIM and IPTC Core, IPTC Extension, TIFF, Dublin Core, Exif, ICC and others.

7. In order for the technical metadata to be usable by the widest range of existing applications, technical metadata is required in its original schema. The Exif format, for example, is by far the most common digital camera format and schema for digital pictures. All automatic image processing applications cater first and foremost to this format and schema, while extending their capabilities to other less common formats as well. Technical metadata originating from the camera-, ICC profiles-, GPS information- and face detection metadata, should remain in the schema in which it was originally created by the camera or application. This would ensure maximum compatibility with clients' and customers' systems and workflows today.
   If technical metadata is repeated in another schema within the same file, the metadata should still be persisted to its fullest extent in its original schema. Additionally, any updating of a metadata property that becomes necessary in one schema, for example because of, image processing or administration, should be automatically replicated by the software in each of the other metadata schemas where the same property appears in that file. Without this assistance, photo sources have problems in keeping multiple sets of the same metadata current and synchronised within the file.

8. in the future, the use of a single schema for all metadata should be recommended, but not until such a schema is approved by all bodies that issue imaging file standards (e.g. ISO, IEC, ITU, JEITA, JPEG, ICC).

9. Archived images should be a copy of the original picture data and full metadata so that, as technical metadata develops, it shall become possible to take advantage of new algorithms to further improve image quality, the use of image resources, and the implementation of asset management.

10. Technical metadata and the associated image pixel data should always be kept together or be linked together in an unambiguous manner.

11. While the persistence of all metadata is the prime goal, metadata that contravenes personal information data protection, or personal-, state- or national security may be removed because of legal requirements. Software that captures all metadata must contain functions that allow the deletion of sensitive metadata, if it contravenes just one of these principles. For example, under some circumstances, a personal ID and GPS information could both be considered safety hazards to a photojournalist in the field and must be removed before distribution.

12. When organisations create or support formats for photos or picture standards, they should ensure that the respective schema or format can be read or be written by freely available software, preferably under an Open Source Licence.
This would enable the reading and writing of image data and metadata so that the above recommendations are met, while obtaining such software should not then become expensive[ii]. Only when such software is freely available and easily integrated into picture-handling programs, can the agencies and organisations which are currently unable to take advantage of the technical developments in digital photography expect to participate effectively in an international trading of pictures.

---

[i] http://www.ifra.com/Persisting_Technical_Photo_Metadata.pdf
[ii] An example of such software is Phil Harvey's ExifTool to be found at:
http://www.sno.phy.queensu.ca/~phil/exiftool/