IPTC AUTUMN MEETING 2005

held at the
Capitol Hotel Milan
Via Cimarosa 6, 20144 Milan (Italy)

24 to 26 October 2005

Minutes of the News Architecture Working Party held on 24 & 25 & 26 October 2005

Document history				[Document URN: urn:iptc:workdoc:nar:0510:1]
Version	Issue Date	Pages	Author (revised by)	Remark
1	2005-11-11	5 + 11	Michael Steidl/	

Present:
Chairman: Laurent Le Meur, Agence France Presse

Walter Baranger, New York Times Company
Dave Compton, Reuters Limited
Honor Craig-Bennett, PA NewsLtd
Takahiro Fujiwara, EAST Co. Ltd
Walter Grolimund, Keystone
Stéphane Guérillot, Agence France Presse (not on 24 Oct)
Darko Gulija, HINA
Geoffrey Haynes, The Associated Press
Klaus Herwig, Deutsche Presse-Agentur GmbH
Niels Hojer-Pedersen, Ritzau Bureau I's
Rudi Horvath, Austria Presse Agentur
John Iobst, Newspaper Association of America
Hugh Johnstone, IPTC Editor
Olli Kemppainen, Oy Suomen Tietotoimisto
George Landau, NewsEngin, Inc.
Dean Large, Business Wire
Johan Lindgren, Tidningarnas Telegrambyrå
Harald Löffler, ifra
Jayson Lorenzen, Business Wire
Takis Mantis, ANA, Athens News Agency
Angelo Marrara, ANSA
John Minting, United Press International
Hironori Mizoguchi, Kyodo News
Peter Müller, SDA/ATS
Stuart Myles, Dow Jones & Company
Hitoshi Saito, Nihon Shinbun Kyokai
Hiroshi Shinotsuka, Kyodo News
Henrik Stadler, Tidningarnas Telegrambyrå
Charles Tichenor, The Associated Press
Tadashi Tsuji, Nihon Shinbun Kyokai
Evi Varsou, Athens Technology Center S.A.
Misha Wolf, Reuters Limited
As Guest:
Paul Kelly, XML Team Solutions
Pauli Tölli, Oy Suomen Tietotoimisto

Michael Steidl, IPTC Managing Director as Secretary

1 Minutes of the Meeting held on 6 June 2005 (NAR 0508.1)

It was proposed by Geoffrey Haynes and seconded by Walter Baranger that the minutes be accepted as circulated. This was agreed unanimously.

2 Matters Arising

No matters were arising from the minutes not covered by this agenda.

3 Chairman's report

The chairman said in July a set of model and specification documents regarding the NAR work were published on a new section of the IPTC web, under: www.iptc.org/dev

4 Overview of the current state of the NAR development work

The chairman gave an overview of the current status of the NAR development work – see his presentation as Appendix 1, slides 1 through 13. (The wording was adapted for the minutes.)

Discussion – primarily on the experimental phase:

Dave Compton said:
- he thinks the period for testing is rather short, having in mind the about two weeks break for Christmas and New Year
- he is wondering how to deal with proposals for essential changes to the architecture.

The chairman said we have to see first what is proposed. It will be considered in any case but it can't be promised to implement all proposed changes.

Misha Wolf added the end of the experimental period was set with having the Spring Meeting 2006 in mind which will be 6 weeks later, the papers for it have to be circulated 3 weeks before, hence this allows to draw conclusions from the test reports for about 3 weeks.

Dean Large proposed to have a specific conference call to discuss all received comments and change requests – this was agreed, but it was said the date should be set in about January.

The chairman asked which members intend to participate into the experimental phase:
Reuters, BusinessWire, ATC, DowJones, AFP explicitly showed their interest, others said they have to consider it first.

MOTION: The chairman moved this "request to launch an experimental phase":
• Parallel with new public drafts & XML Schema
• For to IPTC members ONLY:
– External experiment: there is a problem with human resources and with the timeline
• Use the model and XML Schemas
– Test feeds (single media and multi media)
– Object oriented applications
• Start: 1 December
• Feed back is due on 15 February 2006.

VOTE: On vote by voice the motion was agreed unanimously.

5 News Structure Working Group

The chairman—also being News Structure WG lead—gave an overview of the current News Structure work – see his presentation as Appendix, slides 14 through 29. (The wording was adapted for the minutes.)

6 News Metadata Framework

Misha Wolf, News Metadata Framework WG lead, gave an overview of the current work – see his presentation as Appendix 3.

7 Common Components Working Group

Johan Lindgren, Common Components WG lead, gave an overview of the current work – see his presentation as Appendix 4.

Discussion:

Laurent Le Meur said there is an open issue with the rights metadata CoCo:
- the basic decision is to adopt a standard from the outside
- but a very basic structure for internal testing could be required for the experimental phase.
Also the Persons and Location CoCos are to be considered as open issues.

Darko Gulija added also the use of the Dublin Core namespaces for metadata properties is an open issue.
Misha Wolf said regarding Dublin Core he corresponds with Makx Dekkers of the DC about
- The use of namespaces (merge the current two namespaces into a new one?)
- The policy for changing the namespace URI for specification changes. It was discussed not to change the URI for backward compatible additions, hence to change it only for not backward compatible changes.
- The semantics of "title": the current DC spec says this is a "formal name" while the practical use in the scope of web documents is providing a short verbal name, a short description – which is quite different.

Stuart Myles asked which minimum set of common components will be defined.
Laurent Le Meur replied saying some of "to be expected" components will not be available for the experimental phase by the end of November 2005.
Darko Gulija asked what the final version of the Common Components Library will look like.
Laurent Le Meur said there will never be a "final" version – the library will be updated regularly by changes to and additions of components.
Walter Baranger said he would prefer to have only one version number for a set of components and not each component versioned individually.
Laurent Le Meur said this is what the CoCo Management document says
The Managing Director added this is also said in the NAR Implementation Guidelines.
He added NMDF and CoCo have both to be considered as being "common" to the whole News Architecture – they only represent different scopes of common objects.

8 News Management Working Group

Stuart Myles, News Management WG lead, said he intends to focus on the processing and management of the item as whole.

Laurent Le Meur reminded of an open issue from the News Structure work: how to implement partial updates as this is very tricky and complex – and if to implement at all.

Stuart Myles made a "live survey" at the meeting regarding five issues.

Issue #1: Recipients need an easy to implement processing model.
A complete replacement of all updated items is the simplest form of management.

By show of hands 10 member representatives agreed to this approach.

Issue #2: Producers need fine grained control over updates
Partial updates e.g. just a headline. News volume, size of individual items always increasing

Three members said they want to implement this: AP, Reuters, TT

Chuck Tichenor explained use cases for the AP:
- changes applied to photo captions – only the text should be sent in the update, not the image.
- AP transmits long stories, e.g. transcripts, in takes – by making each take a partial update of the first one.

Laurent Le Meur said for clarification the NAR requires a new revision of an item if only one byte has changed anywhere in the item, so having "editorial revision" only is not possible.

Walter Baranger reported from the New York Times legal requirements enforce them to apply only full replacements – as it must be possible to track at any time how the content has looked like in full.

Stuart Myles said the Dow Jones also submits takes like the AP but requires their customers to show content only in full.

Chuck Tichenor elaborated on the takes issue:
The AP sets one publication identifier for the whole story and to each take a "publication record" identifier is assigned.

Dave Compton explained the use case for Reuters:
- they want to be able appending text to already existing text – as a story unfolds.
- they want to be able adding components to a news item.

John Iobst said the requirement for partial updates is actually based on business models – some companies require them, others don't. Hence the IPTC should support the technical means for doing that.

John Minting was wondering why this is such a big issue as sending takes is a pretty old and common practice.

Dave Compton explained the issue is about how to update previous takes. If a story unfolds into a large number of takes it would not be possible for Reuters – taking bandwidth into account – to send for a minimal addition only all the content already sent previously.

John Minting said UPI is changing also parts of the content already sent previously and hence always sends all content at once.

Issue #3: Recipients want to know exactly what has changed
Either need partial update
Or explanation for full replace
Or both partial update and explanation

Chuck Tichenor said the AP has an additional requirement for state changes of items: not only the new state should be recorded in the updated revision but also the reason for this change.

Issue #4: Evolution of news over time
assignment -> headline -> headline + paragraphs -> … -> multimedia package of inter related items
Maintain relationships over time between items

The relationship of items which have changed over time and their IDs was discussed,
Action ● Chuck Tichenor will send a documentation explaining the approach the AP took for this.

Issue #5: Updates involving referenced items
e.g. several news items refer to a photo - what happens when the photo is updated?
Provider tracks which stories went to which recipients and notifies them?
Recipients must track and apply updates?

In a brief discussion it was clarified references in NAR should primarily point to "the item" and not a specific revision of the item – with the implicit rule that the latest revision will be delivered when accessing by the generic item ID.
Dave Compton added it must be possible to point to specific revision of an item as an option – in this case the issue #5 may be a problem.

9 Any Other Business

There was no other business.

10 Date and Place of Next Meeting

27-29 March 2006, Vancouver (CAN), Marriott Pinnacle Downtown Hotel

Find Appendix →→

NAR 0510.1 Appendix 1

NAR / specific standards

- NAR provides a generic framework
- NAR is *not* an IPTC standard for end users
- An IPTC news exchange standard implements the NAR for a specific usage.
- Example NewsML: representation of textual stories, pictures, audio & video clips, or multimedia stories (text associated with illustrations).
- Example SportsML: representation of sports results ans statistics.

News Architecture

- The overall requirements the NAR has to meet:
  1. Simplify the processing of news objects
  2. Treat news, events, sports results and other news-related information the same way
  3. Use the latest XML technologies
  4. Make it compact
  5. Make it storage-friendly
  6. Make it semantically rich!
  7. Keep compatibility with the current model
- Create a News Architecture (NAR)
- Use it for all IPTC standards

NAR: after AGM 2005

- Worked on refinements of the News Structure
- Worked on data types and the main common components
- Worked on the metadata framework (tech. consulting)
- Worked on the XML syntax, plus technical documentation (tech. consulting)
- Discussed aspects of the processing model

NAR: in the 5 last months

- Only eight “usual suspects” worked on the development
- Mails (>=June):
  - NAR-dev: 474
  - NMDF-dev: 159
  - CoCo-dev: 257
  - NMAN-dev: 49
  - Total : ~ 950 posts
- Confcalls:
  - Agenda published on the IPTC web site http://www.iptc.org/membersonly/schedule_main.php#confcall
  - (>=June): 2 times a week = 19 times (40 hours !)
  - Notes published on the NAR-dev list
- Multiple version of the WG documents

NAR status October 2005

- A set of documents: modeling + tech specs
- A set of XML Schema files (.xsd)
- Consultancy:
  - for XML Schema implementation (Jay Cousins, Ulf Wingstedt)
  - for metadata implementation (Mark Birbeck)
- Interaction with other communities:
  - W3C (RDF/A & XHTML, semantic web)
  - Dublin Core
- Therefore: NAR is close to a good framework, but still many details to decide on.

NAR Model documents

- Key approach: “What NAR provides”
- Expressed as verbal documentation + UML diagrams
- Introduction to:
  - A model for the creation of common components
  - A set of datatypes and common components
  - A conceptual model
  - A metadata framework
- And two conformance levels
  - ‘core’ and ‘power’

NAR Technical Spec documents

- Key approach: “How NAR works in detail”
- Expressed as a more formal verbal documentation + XML samples
- Detailed definition of:
  - A set of datatypes
  - A set of common components
  - A set of reusable items
  - The processing model associated with each component and item.

NAR Glossary document

- Supplements the Model and the Tech Spec documents as a third document
- Includes
  - Glossary
  - Acronyms
  - External references (to documents outside the NAR work)

NAR: timeline

- Autumn 2005:
  - IPTC approval of a NAR **experimental period**.
- Winter 2005
  - Work on NewsML2 and EventsML specifications
  - Debriefing of the test period.
- Spring 2006: IPTC approval of the final NAR documentation.
- Summer 2006: roll-out of NewsML2 and EventsML

NAR Experimental period

- Goals:
  - Allow IPTC members to get a grip on the NAR.
  - Test “real life” use cases vs the NAR
  - Bring back practical issues not spotted by the WP.
  - Help on the finalization of the NAR tech spec.

Statement of the NAR WP

- Request to launch a experimental phase.
- Parallel with new public drafts & XML Schema
- For to IPTC members ONLY:
  because external experiments would cause problems with resources and with timeline
- Use the model and XML Schemas
  - Test feeds (single media and multi media)
  - Object oriented applications
- Start: 1 December
- Feed back is due on 15 February 2006.

Processing open issues

- Members have to send comments to the NAR-dev Yahoo list.
- Each editor of a specific document will maintain a record of formal open issues, inline or in an appendix.
- The NAR WP prioritizes the open issues, discussion on the list.
- Each editor modifies his document is order to have a proposal ready for final discussion.
- After agreement at a conf call each editor updates his document, and forwards it to the «global-docuent» editor.

NAR 0510.1 Appendix 2

Consulting on open issues

- The NAR WP will try to find «self-contained technical issues» for which an expert can provide consultancy.

== END OF NAR OVERVIEW ==

NSTR presentation

- Public draft last July, few comments received.
- DRAFT-NAR_1.0-spec-NewsStructure-Model_15.pdf
- Since then: model is stable, only refinements.
- Last evolution:
  - Update of UML diagrams
  - the model and the technical specs were split. Both will soon be included in the global NAR documents.
- DRAFT-NAR_1.0-spec-NSTR-Model_16.pdf
- DRAFT-NAR_1.0-spec-NSTR-TechSpec_1.pdf
- DRAFT-NAR_1.0-spec-NMAN-TechSpec_5.pdf

NSTR: NAR Items

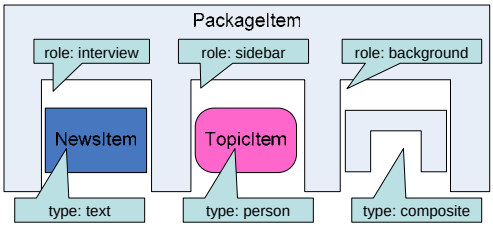
- A set of simple object called Items.
- All managed the same way, all with the same sets of metadata.
- PackageItem: grouping of all kinds of Items.
  - Can include NewsItems, TopicItems or other PackageItems.
- TopicItem: knowledge -> representation of a concept, dedicated structure for each type.
  - Participates to the creation of an news related ontology
- NewsItem: news -> a news report , any media type, any format.

NSTR: Management properties

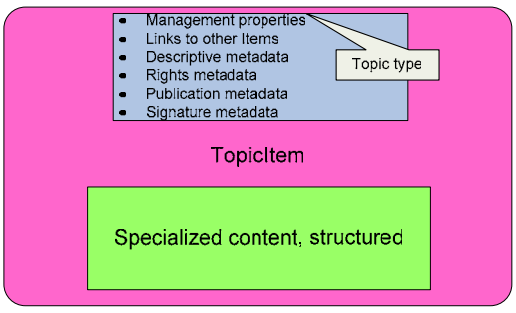
- Driven by a (to be) detailed processing model
- A set of properties, shared by all Items
  - Persistent, universally unique identifier
  - Version number
  - Type
  - Provider
  - Date first issued and date last modified
  - Status
  - etc.

NSTR: PackageItem

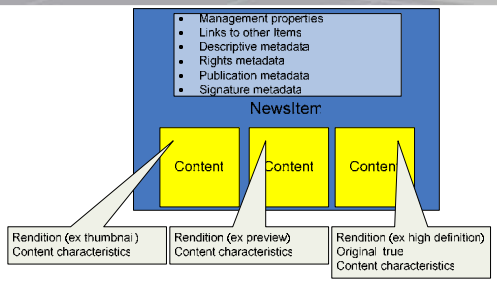
Recursive Groups = Ordered, unordered or alternative sets of items;
Inclusion of Items by reference, "hints" supported



NSTR: TopicItem



NSTR: NewsItem



Content: inclusion by value or by reference

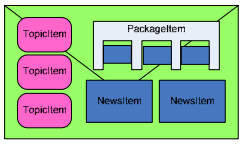
NSTR: Conformance levels

- At least two levels of complexity
  - "core" profile
  - "power" profile
- Provision for provider defined extensions
- Some modules of the framework belong to the "power" profile
  - Ex. rights, signature, partial update.
- The "core" profile is as easy to learn as RSS or Atom… but do more from the start.
- The "power" profile offers top level features.

NSTR: Exchange

- An **optional** exchange message optimized for push replication.

- NewsMessage: can transport any kind of Item, individually or in packages



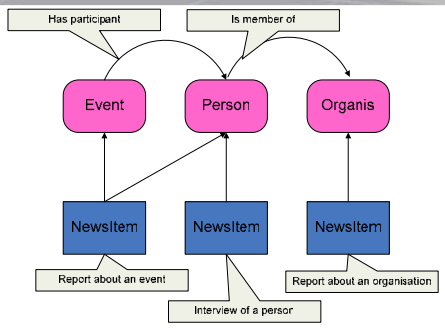
NSTR: Links

- Links between items
  - A news item (e.g. a text) can be associated with another news item (e.g. pictures)
  - A Person item can be linked to specific news items about the person (i.e. occurrences)
- These are "navigation" links between news objects.
- + extended to links to any other resource (on the Web)

NSTR: Relationships btw concepts

- Named relationships between concepts
  - Events (the concept) can be associated with other events, people with organizations etc…
  - Subjects can be associated in thesauri.
- These are semantic relationships.
- RDF: these are "triples" (subject, predicate, object)

NSTR: Semantic News



NSTR: How to use the model

- For applying the NAR to a specific content related news exchange standard this standard's WG has to consider:
  - Is the content news?
    - Assess structure and processing of NewsItem
    - Reuse existing or create a new content class of NewsItem
  - Is the content knowledge?
    - Assess structure and processing of TopicItem
    - Reuse existing or create a new concept type of TopicItem
  - Is the content something different?
    - Create a new item class by derivation from AnyItem
    - E.g.: AssignmentItem (EventsML)

Example: EventsML

- Process:
  - Specify the event component (= "the content", information about the event) in coordination with the CoCo WG.
  - Model the coverage item and assignment item: what content? Which relationships?
  - Create your items based on the provided schemas.

NSTR open issues

- Open issues
  - Item identifiers: single URN as specified by RFC3085 vs a generic GUID plus a version identifier.
  - "Content class" vs NMDF "concept type"
  - Position of the content Characteristics in the structure
  - Expression of usage rights associated only with a specific single content component
  - Details of the topic header (specific metadata, thesauri, semantic networks)

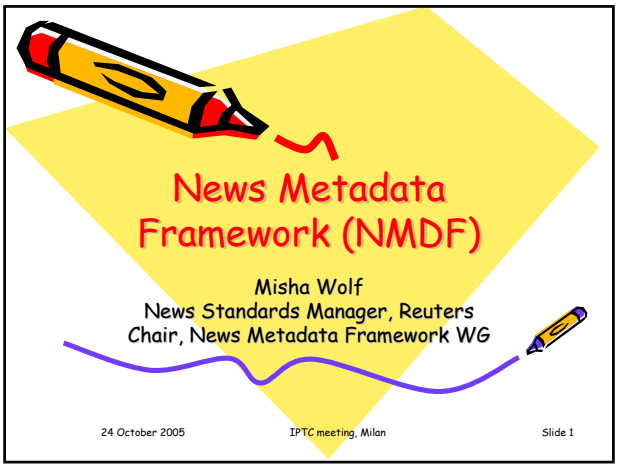
NAR XML implementation

- Consultancy provided by Rivcom/CNet
- Remember: 1st part – Implementation Guidelines – finally approved in May 2005.
- Goal: create a set of XML Schema files
  - a/ delivery of requirements to the consultants
  - b/ first delivery of a draft XML Schema
  - c/ IPTC made comments, sent to the consultants
  - d/ consultants provided a new deliverable
- Three iterations -> current draft is 0.3

XML Schema presentation

- Using XML Spy.
- Framework-0.3.xsd
- PackageItem-0.3.xsd
- TopicItem-0.3.xsd
- NewsItem-0.3.xsd
- NewsMessage-0.3.xsd
- Associated samples

NAR 0510.1 Appendix 3



NMDF Goals

- Support a spectrum of needs, from lightweight to heavyweight
- Be highly interoperable, while allowing proprietary "black holes"
- Be easy to understand and use
- Be compact

Metadata Values

- Simple values (eg integer, date or string)
- Scheme-code pairs representing a concepts (eg "iso4217" and "USD")
- Structured values (eg <person>)
- Supplementary information
- Labels

Simple Values

- <significance>80</significance>
- <created>2005-10-24</created>
- <slugLine separator="-">
  sports-boxing-tyson
  </slugLine>

Scheme-Code Pairs

- A scheme is a taxonomy
- It may be very simple (a flat list) or very sophisticated (a thesaurus with typed relationships between nodes)
- Each scheme is identified by a URI

Scheme-Code Pairs

- As URIs are long and quite difficult to use in XML, for each scheme URI we define a scheme alias
- For example: "iso4217" → "http://www.iptc.org/schemes/iso4217#"

Scheme-Code Pairs

- Each node in a taxonomy is represented by a code (eg "3", "USD", "Interview")
- Each node is represented by a URI, obtained by appending the code to the scheme URI, eg:
  http://www.iptc.org/schemes/iso4217#USD

Scheme-Code Pairs

- QNames are Qualified Names
- Defined by Namespaces in XML
- An example of the QName syntax is "<news:item>"
- Unfortunately, we can't use QNames for scheme alias definition as …

Scheme-Code Pairs

- NameStartChar ::= ":" | [A-Z] | "_" | [a-z] | [#xC0-#xD6] | [#xD8-#xF6] | [#xF8-#x2FF] | [#x370-#x37D] | [#x37F-#x1FFF] | [#x200C-#x200D] | [#x2070-#x218F] | [#x2C00-#x2FEF] | [#x3001-#xD7FF] | [#xF900-#xFDCF] | [#xFDF0-#xFFFD] | [#x10000-#xEFFFF]
- NameChar ::= NameStartChar | "-" | "." | [0-9] | #xB7 | [#x0300-#x036F] | [#x203F-#x2040]

Scheme-Code Pairs

- So these are illegal QNames:
  nc:15000000 (sport)
  nc:15001000 (aero and aviation sport)
  nc:15001001 (parachuting)
  nc:15001002 (sky diving)
  …

Scheme-Code Pairs

- This is why we have adopted CURIEs (Compact URIs)
- <ns
  prefix="nc"
  uri="http://www.iptc.org/NewsCodes#"
  />

Structured Values

- For example:
- <person>
  <givenName>Marilyn</givenName>
  <familyName>Monroe</familyName>
  <pic>  </pic>
- </person>

Supplementary Information

- @creator and @created
- @confidence and @relevance
- @type
- @why
- <title>
- <sameAs> and <childOf>

Syntax

```
<subject code="nc:15062000"/>
  creator="..." created="..." type="..."
  confidence="..." relevance="..." why="...">
  <title>...</title>
  <sameAs code="...">
  <childOf code="...">
</subject>
```


Grouping Concepts

- Women's + 100m + Swimming + Final
- Positive + pre-announcement + Citigroup
- Microsoft's share price + moved up
- the Clintons (Bill + Hillary)

Grouping Concepts

```
<subject>
  <bag>
     <bit code="nc:15000002"/>
     <bit code="nc:15062000"/>
  </bag>
  <title>Women's Swimming</title>
</subject>
```


Labels

- <title creator="..." created="..." role="..." markup="..." media="..." xml:lang="en">
  The <abbr title="International Press Telecommunications Council">IPTC </abbr>
  (<abbr xml:lang="fr" title="Comité International des Télécommunications de Presse">CITP</abbr>)
  announces major new standard!
  </title>

Labels

International Press Telecommunications Council
Comité International des Télécommunications de Presse

- The IPTC (CITP) announces major new standard!

NAR 0510.1 Appendix 4

Common Components

DRAFT-NAR_1.0-spec-CommonComponents-Model_11

General description of what is a CoCo and how to use them.

DRAFT-NAR_1.0-spec-CoCo-ManageGL_1

Guidelines to future management of CoCo's.

DRAFT-NAR_1.0-spec-CommonComponents-CoColist3

List, summary and status of CoCo's being developed.

DRAFT-NAR_1.0-spec-CoCo-LibSpec_6

Library with specification of developed CoCo's.

Related documents

DRAFT-NAR_1.0-spec-NMDF-TechSpec_19

News MetaData Framework – how to use metadata in IPTC standards.

DRAFT-NAR_1.0-spec-NSTR-TechSpec_1

Technical spec of the IPTC news architecture.

Chaos first – order later!

5.1.8 Editorial Note

Explanation	A note of interest to the "Business to Business" receiver.		
Note(s)	It conveys information addressed to the editorial people processing the content, like special instructions, information about additions or corrections applied to the latest version of the content.		
Name	**edNote**	Namespace:	The default for Common Components
Datatype	Label CoCo	Dataformat:	
Cardinality	0..∞		
XML implem.	Element		
Example	<edNote>This is an editorial note</edNote>		

(From the LibSpec document – Administrative metadata.)

Rights **Link** **IPTCDateTime**

Organisation **Person** **PartialDate**

DescriptiveMetadata

Location **Label**

Resource **ContactInformation**

MetadataAssignment **AdministrativeMetadata**

Event

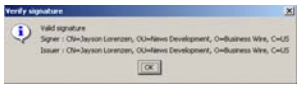
Address **DigitalSignature**

Publication

<ds:Signature xmlns:ds="http://www.w3.org/2000/09/xmldsig#">
<ds:SignedInfo> etc

<ds:SignatureValue>
FQg7XL2u01agfxzEX8NdBfeKJbY1GCCYHj2y/+dqHfOGXE8bgyCTLQ==
</ds:SignatureValue> etc

<news:dataContent><news:textContent>String</news:textContent>



Common Components

<news:dataContent><news:textContent>String</news:textContent>

<dsig-xpath:XPath
xmlns:dsig-xpath="http://www.w3.org/2002/06/xmldsig-filter2"
Filter="intersect">
//news:newsItem/news:contentComponent[1]
</dsig-xpath:XPath>

Common Components

Link Component

Identification of the linked resource

Locators for the linked resource

Description of the linked resource

Common Components

Label component

<title>This is a title</title>

<title markup="mk:rich">
This introduces my news about
<link rel="type:organisation" href="urn:xxxx:IBM">IBM</link>
</title>

Common Components

<**news:item**
xmlns="urn:iptc:std:coco:1.0:xmlns" xmlns:news="urn:iptc:std:news:1.0:xmlns"
xmlns:coco="urn:iptc:std:coco:1.0:xmlns">
<itemMeta> <provider>TT</provider>
<generated>2005-10-17T09:30:47+02:00</generated></itemMeta>
<contentMeta>
<created>2005-10-17T09:30:47.0Z</created>
<creator coco:role="Editor">jl</creator>
</contentMeta>
<news:content>
<news:characteristics>
<contentType>Flash</contentType>
<size>15</size>
</news:characteristics>
<news:struct><ext:test xmlns:ext="http://www.ext.com"/></news:struct>
</news:content></**news:item**>

Common Components

<item>
<coco:descriptiveMeta>
<coco:description>Some text</coco:description>
….
<item>
<coco:descriptiveMeta>
<coco:description>Some text</coco:description>

<news:item>
<descriptiveMeta>
<description>Some text</coco:description>
…
<event:item>
<descriptiveMeta>
<description>Some text</coco:description>

Common Components

<xs:element name="item" type="NewsItemType">

<xs:complexType name="NewsItemType">
<xs:complexContent>
<xs:extension base="coco:AnyItemType">
<xs:sequence>
<xs:element ref="coco:contentMeta">

<xs:element name="contentMeta">
<xs:complexType>
<xs:sequence>
<xs:group ref="administrativeComponent" minOccurs="0"/>
<xs:group ref="descriptiveComponent" minOccurs="0"/>

Common Components

```
<contentMeta>
        <created>2001-12-17T09:30:47.0Z</created>
        <creator coco:role="String"/>
        <contributor coco:role="String"/>
        <infoSource/>
        <significance>100</significance>
        <audience coco:significance="100" coco:exclude="true"/>
        <service/>
        <edNote/>
        <title/>
        <description/>
        <slugline coco:separator="S"/>
</contentMeta>
```


Common Components

```
<xs:group name="administrativeComponent">

 <xs:sequence>

  <xs:element name="created" type="DateTimeType" minOccurs="0">

  <xs:element name="creator" minOccurs="0" maxOccurs="unbounded">
     <xs:complexType mixed="true">
       <xs:complexContent >
         <xs:extension base="FormalMetadataType">
           <xs:attribute name="role" type="xs:string">
```


Common Components

```
<xs:simpleType name="DateTimeType">
        <xs:union memberTypes="xs:dateTime xs:date"/>
</xs:simpleType>
```

```
<xs:complexType name="FormalMetadataType" mixed="true">
 <xs:complexContent >
   <xs:restriction base="xs:anyType">
     <xs:sequence>
       <xs:any namespace="##any" processContents="skip"
                  minOccurs="0" maxOccurs="unbounded"/>
     </xs:sequence>
     <xs:attribute name="val" type="xs:string"/>
     <xs:attributeGroup ref="commonMetaAttributes"/>
```


Common Components

http://groups.yahoo.com/group/iptc-common-components-dev/

21 members – room for more.

File area with discussion documents and a template document.

Old messages to read up on.

Discussion also in the News Architecture group.

Email: johan.lindgren@tt.se