



# IPTC News Markup Architecture

Expose  
for discussion  
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# A common and generic News Markup Architecture of the IPTC

- This expose addresses goals of the “Roadmap 2005” (“Tower of Standards”) and requirements from groups working on specific IPTC standards – and attempts to reconcile them.
- The key issues to be reconciled are:
  - Having a single structural framework for all standards [Roadmap2005]
  - NewsML2 as such a generic framework must not specify any content specific metadata and is agnostic to the content it wraps. [Roadmap2005]  
It only provides the management of items (=content) as mandatory feature. Any further metadata and features are optional.
  - The inclusion of requirements from specific standards must not result in (undue) extended overall specifications for this framework.  
 (“lean – no bells and whistles” [Roadmap2005])  
This could be achieved by a “modularisation”:  
a “lean” core specification with well defined interfaces for extensions and some common add-on modules, like e.g. “Labels”. (Like this is already implemented by SportsML for additional sports.)
  - A specialised content standard is focussed on conveying its specific data and should be able to adapt the framework to its specific needs:
    - to adopt only metadata elements and features crucial to this specialised content → no needless elements and features = no overhead (= to apply restrictions to the framework/NewsML2 specs)
    - to extend the framework/NewsML2 specs by the needs of this standard: metadata structures specific to this specialised content
    - any extension should be restricted to the use by a specific standard, or in other words: a standard specific “add-on” should only be added for this standard and not for all other standards.
  - How to express metadata:  
The Global Metadata Framework initiative addresses a formal expression of metadata to be applied to all IPTC standards. This covers:
    - the expression of arbitrary values
    - the expression of rule based values
    - the expression of values from controlled vocabularies
    - to define generic and common structures for topics commonly used by IPTC standards (people, locations ...)
- NITF is not a “specialised content” standard but a standard for the single-item exchange of primarily text content and it can be employed to markup textual content in NewsML.

The graphics on the following pages show how such a common markup of news content by the IPTC could look like – consider this as a sketch.

(Comment on the architecture: I moved a “Metadata about the content” section into the content-item. This was done to distinguish between metadata “about the content-item” and “about the content as such” – but this should only enforce better understanding of the structure and is not intended to bias any final conceptual model or implementation.)

# Common News Markup Architecture

NewsML instance

Transmission envelope [0..1]

Managed Item [1...∞] / + ItemType attrib

ItemType = News, Event, Sportsdata, ProgramListing (Location, Person ?)

Management Metadata [1] = about the content-item

- Identifier + versioning info [mandatory]
- Item-associations (named association) [optional]  
includes a format for "packaging associations"

{= ~ Identifier, NewsManagement, AdministrativeMetadata  
RightsMetadata from NewsML 1.x}

Content-item [1] = a generic container for content  
Details of its structure depends on the type of content  
and which IPTC markup standard is employed

Metadata about the content

generic MD elements [opt]: Labels, DescriptiveMetadata  
Specialised MD elements: "events", "sports-data",  
"ProgramGuideData"

{Basic spec extended by specific spec-modules,  
like already done in SportsML}

Content [0..∞] / + rendition type

Physical properties

Raw data – by value or reference

# News Markup Architecture: Spec. content / Events

## NewsML instance

Transmission envelope [0..1]

Managed Item [1...∞] / + ItemType="Event"

Management Metadata [1] = about the content-item

- Identifier + versioning info [mandatory]
- Item-associations (named association) [optional]  
includes a format for "packaging associations"

{=~ Identifier, NewsManagement, AdministrativeMetadata  
RightsMetadata from NewsML 1.x}

Content-item [1]

Metadata about the content

generic MD elements [opt]: Labels, DescriptiveMetadata  
Specialised MD elements:  
eventsmml:event  
{as root for all event specific sub-elements,  
see details in the draft EventsML specs}  
coverageml:assignments

Content [0..∞] / + rendition type

Physical properties

Raw data – by value or reference

{the value of the current "Event/Description/Text" element}

# News Markup Architecture: Spec. content / Sports

## NewsML instance

Transmission envelope [0..1]

Managed Item [1...∞] / + ItemType="sportsdata"

Management Metadata [1] = about the content-item

- Identifier + versioning info [mandatory]
- Item-associations (named association) [optional]  
includes a format for "packaging associations"

{=~ Identifier, NewsManagement, AdministrativeMetadata  
RightsMetadata from NewsML 1.x}

Content-item [1]

Metadata about the content

generic MD elements [opt]: Labels, DescriptiveMetadata  
Specialised MD elements:  
sportsml:sports-content

{as root for all sports specific sub-elements,  
except "article" (see below in Content)  
see details in the SportsML specs}

Content [0..∞] / + rendition type

Physical properties

Raw data – by value or reference

{the value of the current "sports-content/article" element}

# News Markup Architecture: Spec. content / ProgramGuide

NewsML instance

Transmission envelope [0..1]

Managed Item [1...∞] / + ItemType="PrgmGuide"

Management Metadata [1] = about the content-item

- Identifier + versioning info [mandatory]
- Item-associations (named association) [optional]  
includes a format for "packaging associations"

{=~ Identifier, NewsManagement, AdministrativeMetadata  
RightsMetadata from NewsML 1.x}

Content-item [1]

Metadata (about the content )

generic MD elements [opt]: Labels, DescriptiveMetadata

Specialised MD elements:

pmgde:ProgramGuideML

{as root for all radio/tv program listing-specific  
sub-elements, see details in the  
ProgramGuideML specs}

# News Markup Architecture: Spec. content / Weather

## NewsML instance

Transmission envelope [0..1]

Managed Item [1...∞] / + ItemType="Event"

Management Metadata [1] = about the content-item

- Identifier + versioning info [mandatory]
- Item-associations (named association) [optional]  
includes a format for "packaging associations"

{=~ Identifier, NewsManagement, AdministrativeMetadata  
RightsMetadata from NewsML 1.x}

Content-item [1]

Metadata about the content

generic MD elements [opt]: Labels, DescriptiveMetadata  
Specialised MD elements:  
wthr:weatherData  
{as root for all weather data-specific  
sub-elements, see details in the upcoming  
WeatherdataML specs}

Content [0..∞] / + rendition type

Physical properties

Raw data – by value or reference

{a textual weather report/forecast, a radar map/image ...}

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