



**Version 1.0**

# **The PRISM Source Vocabulary Specification**

**September 27, 2012**



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## Abstract

On April 3, 2010 the publishing ecosystem was changed forever. For magazines, the launch of the iPad signaled the exciting new era of interactive, innovative publications and almost unimagined new revenue opportunities. But forced to use today's workflows, tools and technologies, producing multiple tablet editions translates into escalating production staff efforts without any accommodation to publication schedules. The existing print-based workflow was unsustainable and unprofitable, so the urgency to find solutions could not have been greater!



nextPub<sup>®</sup>, the publishing industry's technology incubator, is an industry initiative hosted by IDEAlliance and supported by MPA, the Magazine Media Association, AAAA/Ad-ID and the Japanese Magazine Publishing Association. By enabling publishers to engage directly with their industry peers, nextPub brings together the industry's best minds and provides the additional technical and support resources required to aggressively tackle the challenge. The goal of nextPub is to foster the development of next-generation publishing tools by embracing emerging technologies, developing best practices and establishing new industry specifications to make multi-channel publishing both simple and efficient.

Those engaged in the nextPub Initiative believe the solution to efficient multi-channel publishing is in the *SOURCE*. nextPub is therefore publishing a set of foundational content management specifications, built on PRISM 3.0 metadata elements and employing HTML5 enhanced with PRISM-based class semantics for source content encoding.

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## 1 STATUS

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### 1.1 Document Status

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This document represents the IDEAlliance PRISM Source Vocabulary Overview Specification

✓	Draft for Public Comment	December 12, 2011
✓	V1.0 PSV Final Draft Specifications	June 12, 2012
✓	V1.0 PSV Final Specifications	September 27, 2012

### 1.2 Document Location

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The location of this document is:

<http://www.prismstandard.org/specifications/psv/1.0/PSV.pdf>

or

<http://www.prismstandard.org/specifications/psv/1.0/PSV.htm>

### 1.3 Version History

Version Number	Release Date	Editor	Description
Public Draft	12/15/2011	Kennedy	Version to support nextPub
Final Draft	06/12/2012	Kennedy	Comments Resolved, Final Draft
Final Specification	09/27/2012	Kennedy	Comments Resolved, Final Specification

## 2 INTRODUCTION

Because nextPub participants firmly believe that **the Source is the Solution**, the Working Group has developed the PRISM Source Vocabulary (PSV) Specification. PSV is a standard framework for encoding digital content and configuring content management (CM) and DAM systems to create and produce **future-ready content**.

The PSV Specification is made up of a set of four documents. This document, the PRISM Source Vocabulary (PSV) Specification [PSVS], provides the technical, detailed specification for the PRISM Source Vocabulary.

### 2.1 The nextPub Publishing Model

The nextPub model is based on digital capture and management of all content and associated rich media. Source content is semantically rich enough to enable the publisher to select content and automate layout and delivery to a wide variety of publishing platforms in platform-native formats. This model, based on the new PRISM Source Vocabulary (PSV) Specifications, has been designed to support today's issue-based publications as well as to enable publishers to aggregate content in new ways to create new digital content channels that extend beyond the traditional publication models.



### 2.2 About the PSV Framework

PRISM Source Vocabulary (PSV) Specification defines a framework and building blocks designed to enable the implementation of the nextPub Publishing Model. The PSV framework is intentionally flexible set of building blocks that each publisher can deploy according to their specific publishing strategy and business model.

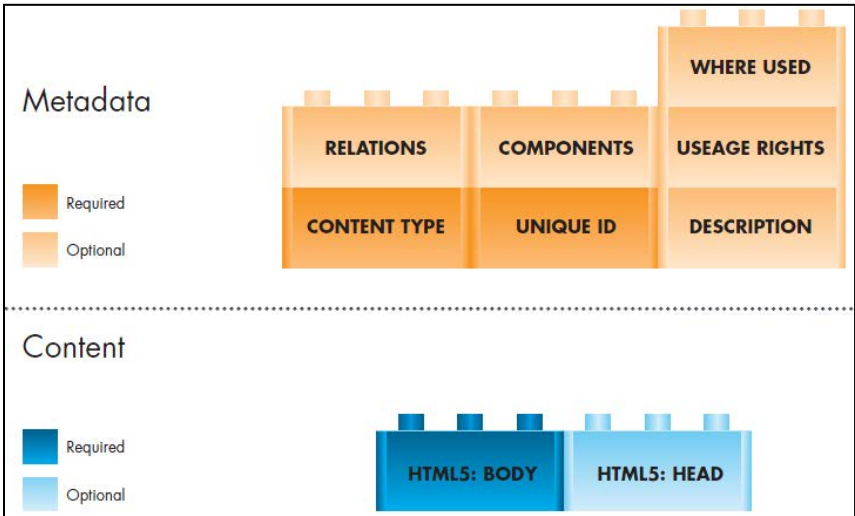


Figure 1.1 The PSV Framework

The PSV Specification defines robust metadata elements and controlled vocabularies that can be used to configure federated source content / rich media repositories. Metadata fields and values used in this specification are drawn from the IDEAlliance PRISM 3.0 Metadata and Controlled Vocabulary Specifications. By way of future-proofing, nextPub recommends encoding content using HTML5 tagging enhanced with PRISM-based class semantics.

### 2.3 The PSV Namespace

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Dublin Core, PRISM, PRISM Usage Rights, PRISM Recipe Metadata and other relevant PRISM metadata namespaces along with elements from the new psv: namespace are used to construct the PSV Framework. XML structures unique to this specification for content encoding are given the namespace psv:

The recommended namespace for PSV markup is:

`xmlns:psv="http://prismstandard.org/namespaces/psv/1.0/"`

**Note:** There is no official schema for HTML5. However, nextPub has developed a schema for the PRISM Source Vocabulary Specification for the purpose of illustrating PSV structures in this specification. For content encoding, the PSV schema is specifically designed to be more restrictive than a true HTML5 schema would be in order to make source content encoding and transformations to delivery channel formats much more straightforward. The design goal was to define a valid HTML5 subset for the content encoding portion of PSV.

### 2.4 Diagrams

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In this Specification, the recommended HTML5-based PSV XML model is illustrated using model diagrams produced with the XML Spy software product. These diagrams show the PSV element and attribute structure. The legend for reading XML model diagrams is shown in Figure 1.2. Elements that are required by the model are shown in a solid box. Elements that are optional are shown in a dotted box. Likewise attributes may be required (solid box) or optional (dotted box). A repeatable occurrence of elements is indicated by numbers below each element box to the right.

The diagrams also indicate how elements are assembled. When building some models, elements may occur in a sequence with a specified order. Other models provide a choice from among a number of elements. The legend in Figure 1.2 shows the connectors for sequence and choice.

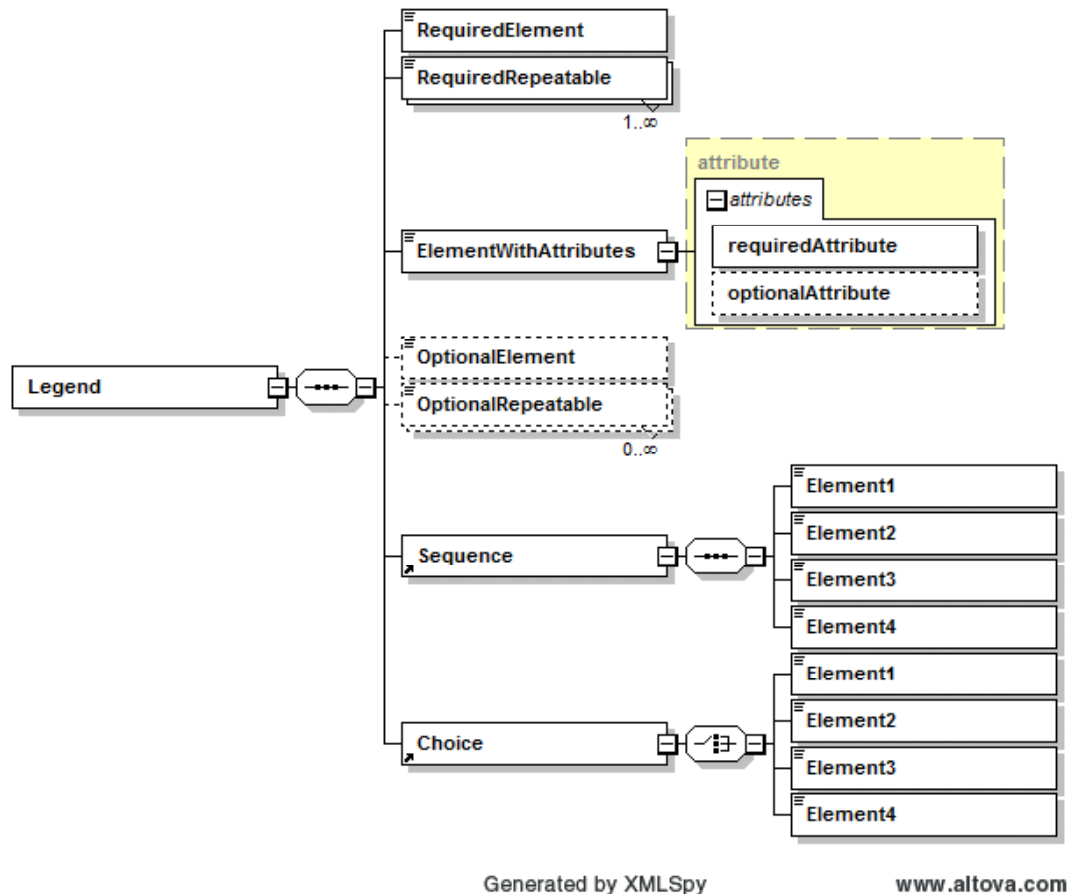


Figure 1.2 The Legend for XML Diagrams

## 2.5 The PSV Documentation Package

The nextPub Working Group has developed a series of specifications collectively known as the PRISM Source Vocabulary. The use case for PSV is to encode semantically rich content that can be transformed and delivered to any platform in that platform-native format. This Specification is made up of a modular documentation package that builds on PRISM 3.0 and HTML5. Over time new modules may be added to the documentation package. The documentation package for the nextPub PRISM Source Vocabulary Specification Version 1.0 consists of:

## 2.6 PSV Content Management Schema

In order to assist implementers develop a PSV-based federated content management solution, the nextPub Working Group is providing an XML Schema (XSD) that can serve as the basis for the design of a PSV content repository.

**Note:** The PSV CM schema is not designed for tagging content. It is provided simply to serve as a basis for the design of a content repository. Metadata building blocks from this schema can be combined with HTML5 by publishers who wish to develop a hybrid PSV metadata and content tagging schema.

## 2.7 Other PSV Schemas

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Because PSV is a flexible framework, it supports many different use case scenarios. A different schema, using the PSV metadata fields and content encoding can be developed for each different use case. In order to assist PSV implementers, the nextPub Working Group is planning to provide a number of XML Schemas (XSDs) to support common use cases including tagging an article and transmitting articles to content aggregators. These PSV sample schemas will be available from the nextPub website (<http://www.nextpub.org>) and documented in the nextPub PSV Implementation Guide that will be published following the publication of this specification.

## 2.8 Definitions

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The following terms and phrases are used throughout this document in the sense listed below. Readers will most likely not fully understand these definitions without also reading through the specification.

<b>Controlled Vocabulary</b>	A list of pre-defined property values that can be used for a metadata property field.
<b>Metadata Field</b>	Information about a resource. In this specification, metadata is about an ad being submitted to a magazine. Metadata is expressed as one or more <i>properties</i> .
<b>Property</b>	A field with a defined meaning used to describe a resource (digital image).
<b>Value</b>	Each property of a digital image has an associated characteristic or value.
<b>Cardinality</b>	Cardinality specifies whether the property is required or optional. Since the XMP Panels cannot enforce cardinality, this will simply be noted in the user interface.

### 3 PRISM SOURCE VOCABULARY FRAMEWORK

This section provides an overview of nextPub PRISM Source Vocabulary Framework. PSV Specification defines robust metadata elements and controlled vocabularies that can be used to configure federated source content / rich media repositories. Metadata fields and values used in this specification are drawn from the IDEAlliance PRISM 3.0 Metadata and Controlled Vocabulary Specifications. By way of future-proofing, nextPub recommends encoding content using HTML5 tagging enhanced with PRISM-based class semantics.

#### 3.1 PSV Framework Structure

The specification for the PRISM Source Vocabulary does not use the PRISM/PAM XML message structure. The PRISM Source Vocabulary is made up of a metadata block designed to configure a CM/DAM (<psv:metadata>) as well as an HTML5-compliant <head> and <body> for encoding content. See Figure 3.1.

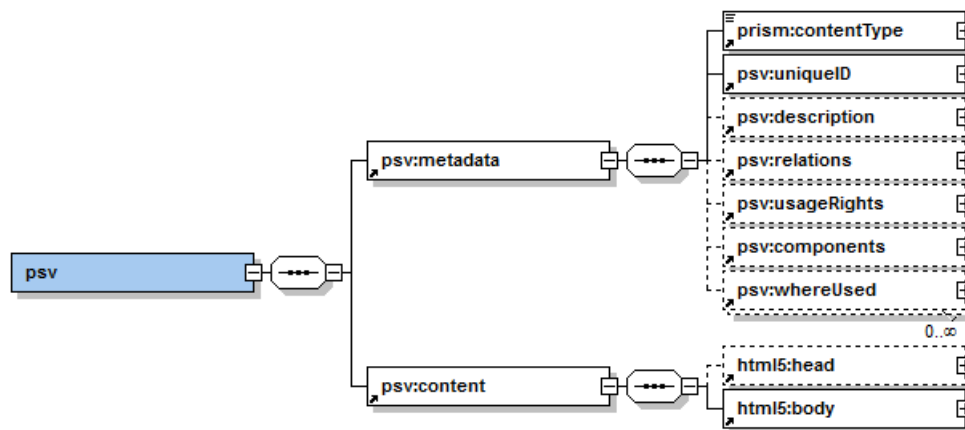


Figure 3.1 The PRISM Source Vocabulary XML Structure

**Note:** If you need to transform PSV into HTML5 to deliver for browser display, you may wish to transform some of the metadata in the <psv:metadata> block into <meta> tags in the HTML5 head. A [PSV to HTML5 Transformation Guide](#) to document the transformation of PSV XML into HTML5 for delivery to browsers is planned to be added to the PSV Documentation Set in the future.

#### 3.2 PSV Metadata

This section provides summary of PSV metadata block. This block was designed to enable the management and aggregation of units of content for any purpose; from creating an issue of a magazine, to creating a bookazine or even to new collection types in the future. See Figure 3.2.

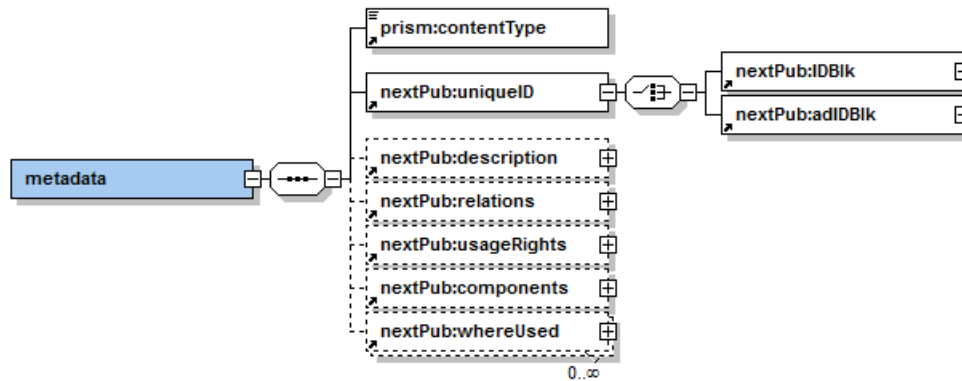


Figure 3.2 PSV Metadata Structure

Only two metadata fields are required by PSV. The first is the specification of content type and the second is a unique identifier for that content. All other metadata fields are optional and will be determined by a publisher based on their business strategy and requirements.

That said, PSV metadata must be semantically rich enough to enable publishers to manage and assemble content for any purpose on any platform. The metadata delivered to any device will be only that metadata that is critical to navigating articles assembled as a “publication” for delivery.

### 3.3 Content Unit-of-Storage

When establishing a nextPub PSV repository, a unit-of-storage must be specified. Currently magazine publishers are capturing source content at the article level. This is because, to date, the dominant use case was the delivery of content to content aggregators on an article-by-article basis. New use cases underlying the nextPub effort do nothing to change the assumption that the basic unit of storage and access is at the article level of a magazine. However, for other publication types such as books or blogs, other units of storage are indicated.

**Note:** While magazines are currently delivering articles combined with a cover, contents and ad materials to a tablet or other digital device, use cases foreshadow the day when we might want combine articles, not based on issue, but by topic or some other unifying metadata. Hence we have retained the “generic article” as the basic unit of XML content management so this goal might be achieved.

#### 3.3.1 Content Types

It is important to understand that when we say an article is the basic unit of content storage, we are referring to a *generic article* rather than a physical article of a magazine. In the early days of PRISM, it could be assumed the unit was an article of a magazine, journal or other serial publication. Now, expanding the scope to cover the broader publishing use cases, the unit-of-content is not so obvious. This is particularly true when advertising material, blog or book content is added to the scope.

In order to refine what we mean by the generic term “article,” the PRISM Content Type Controlled Vocabulary has been developed. A content type identifies the highest-level indicator

of the nature of the asset that is tagged. Some content types that describe the unit-of-storage include an advertisement, article, blog entry, book chapter, cover, masthead, introduction and navigational aid.

See The PRISM Controlled Vocabularies Specification [PRISMCVS] for complete documentation of the new PRISM Content Type Controlled Vocabulary.

### 3.3.2 Genres

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In addition, the PRISM Genre Controlled Vocabulary has been enhanced in PRISM 3.0 to refine the intellectual description of core content types. So if a unit of stored content is the content type “article,” we can refine the description by specifying that the genre is a “cover story” that is an “interview”, a “profile” or even a photo essay.

- abstract (refines article)
- acknowledgements (refines bookChapter)
- adaptation (refines article)
- advertorial (refines advertisement)
- analysis (refines article)
- answers (refines bookChapter or contentBlock)
- appendix (refines bookChapter)
- authorBio (refines bookChapter)
- autobiography (refines navigationAid)
- backCover (refines cover)
- bibliography (refines bookChapter)
- biography (refines article)
- box (refines contentBlock)
- calendar (refines article)
- cartoon (refines contentBlock)
- chapter (refines bookChapter)
- chart (refines contentBlock)
- chronology (refines article)
- clarification (refines article or blogEntry)
- classifiedAd (refines contentBlock)
- column (refines article or blogEntry)
- correction (refines article or blogEntry)
- coverPackageArticle (refines article)
- coverStory (refines article)
- dedication (refines bookChapter)
- department (refines article)
- diagram (refines contentBlock)
- electionResults (refines article)
- essay (refines article)
- excerpt (refines article)
- faq (refines article)
- fashionShoot (refines article)
- feature (refines article)
- featurePackageArticle (refines article)
- fiction (refines article)
- financialStatement (refines article)
- foreward (refines bookChapter)
- frontInsideCover (refines otherCover)
- glossary (refines bookChapter)
- horoscope (refines contentBlock)
- insideBackCover (refines otherCover)
- insideFrontCover (refines otherCover)
- interactiveContent (refines article)
- interview (refines article)
- jumpPage (refines article)
- layer (refines contentBlock)
- legalDocument (refines contentBlock)
- letters (refines article)
- list (refines article)
- map (refines contentBlock)
- newsBulletin (refines article)
- notice (refines article)
- obituary (refines article)
- opinion (refines article)
- other (refines any content type)
- photoEssay (refines article)
- poem (refines contentBlock)

- poll (refines contentBlock)
- postscript (refines bookChapter)
- preface (refines bookChapter)
- pressRelease (refines article)
- productDescription (refines article)
- profile (refines article)
- puzzle (refines contentBlock)
- qAndA (refines article)
- quiz (refines contentBlock)
- quotation (refines article)
- ranking (refines article)
- recipe (refines contentBlock)
- references (refines bookChapter)
- reprint (refines article)
- resources (refines article)
- response (refines article)
- review (refines article)
- schedule (refines article)
- scrubber (refines navigationAid)
- sectionList (refines navigationAid)
- sectionTableOfContents (refines navigationAid)
- sidebar (refines contentBlock)
- stockQuote (refines contentBlock)
- supplementAdvertisement (refines advertisement)
- supplementArticle (refines article)
- supplementBackCover (refines otherCover)
- supplementFrontCover (refines otherCover)
- tableOfContents (refines navigationalAid)
- transcript (refines article)
- userComments (refines article)
- userGeneratedContent (refines contentBlock)
- userReview (refines article)
- wireStory (refines article)

### 3.4 Unique Identification Metadata

The unique identifier metadata block provides one identification mechanism for articles, chapters, blog entries, etc. and a second identification mechanism that is specifically designed for advertisements. See Figure 3.3.

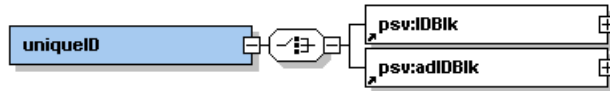


Figure 3.3 Unique Identifier Structure

#### 3.4.1 Identification of Articles

At a minimum, each non-advertising unit of content must have a unique identifier specified using dc:identifier and a title. In addition some other options have been included. See Figure 2.4.

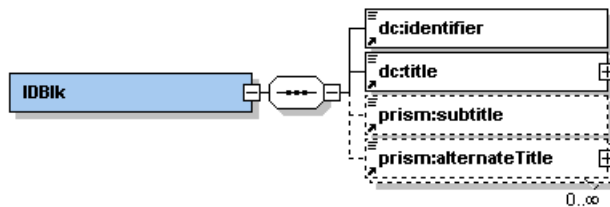


Figure 3.4 PSV Identification Metadata

#### Identification of Advertisements

At a minimum, each non-advertising unit of content must have a unique identifier and a title. Because specifications from AdSMIL ([www.adsmil.org](http://www.adsmil.org)), the Ghent Work Group ([www.gwg.org](http://www.gwg.org)) Ad-ID ([www.ad-id.org](http://www.ad-id.org)) and exist today for identifying ad material, nextPub has adopted those metadata fields for the unique identification of ads. See Figure 3.5.

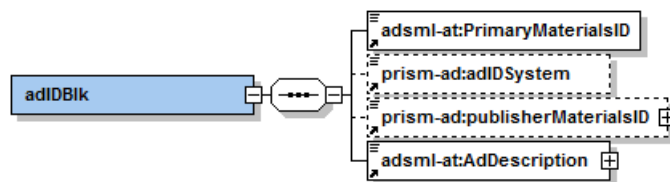


Figure 3.5 Unique Identification for Ad Materials

#### 3.4.2 Description Metadata

PSV description metadata provides descriptive information about the content. This block is based on PRISM descriptive metadata fields along with some additional fields for describing advertising. See Figure 3.6.

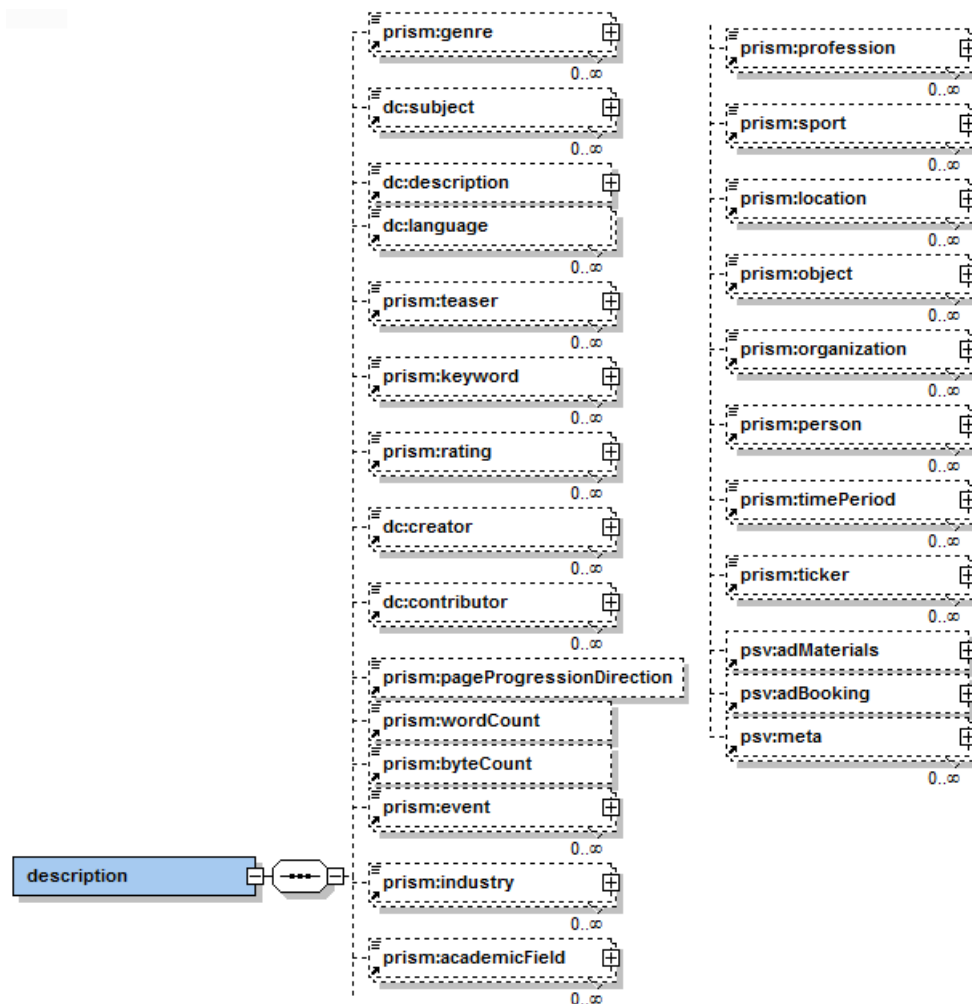


Figure 3.6 PSV Descriptive Metadata Structure

### 3.4.3 Descriptive Metadata for Advertising

Any of the PRISM descriptive metadata may be used to describe an advertisement. For example, we might want to specify a prism:industry or prism:organization featured in an advertisement. But again other specifications, focusing specifically on describing advertisements already exist. So those fields are also allowed as options for describing advertising materials. See Figure 3.5.

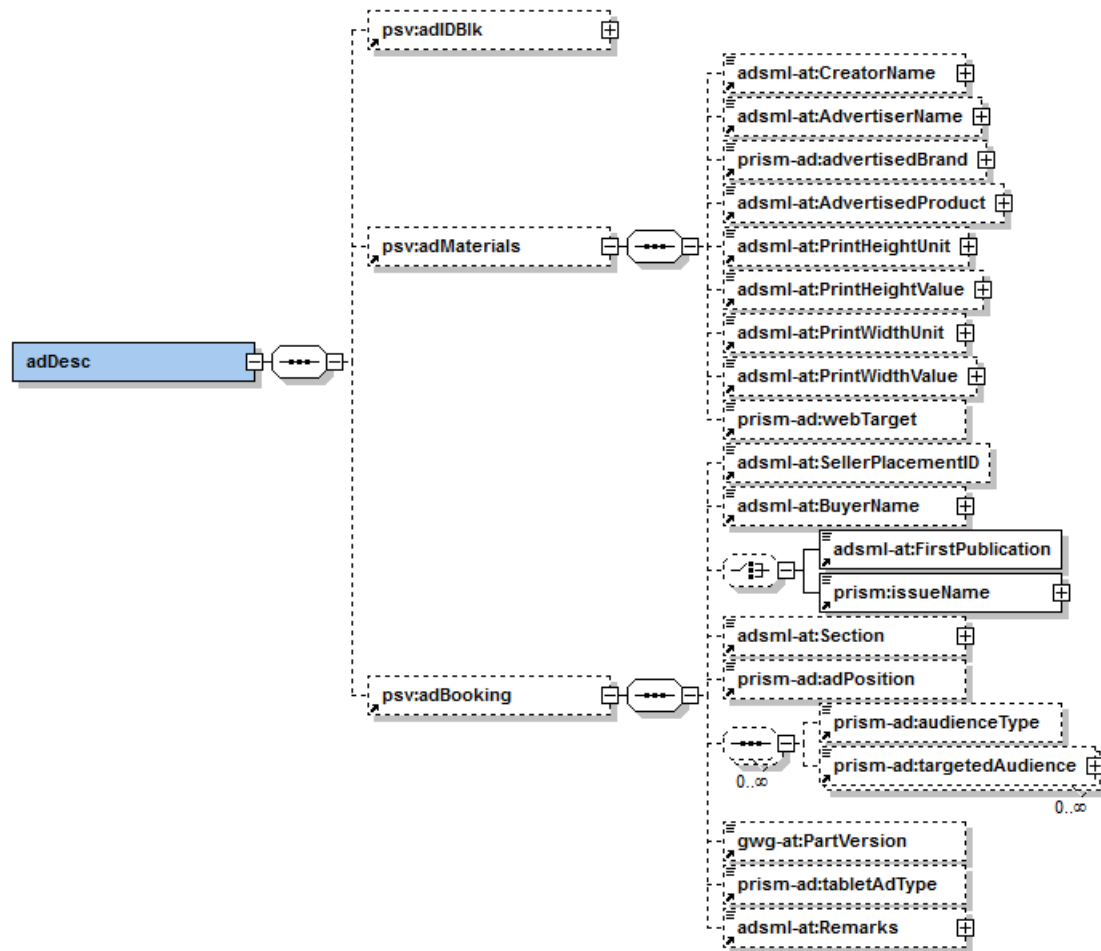


Figure 3.7 PSV Advertising Description Metadata

### 3.4.4 Descriptive Metadata from Other Specifications

Because nextPub seeks to define source content for publication categories far broader than just magazines, it is entirely possible that the source content may have originally been encoded to another existing XML tagging specification such as TEI or DocBook. A new, generic metadata element has been added to support this use case. The `<psv:meta` tag has three attributes to capture the outside metadata semantics:

- **prefix=** specifies the namespace, or prefix from the source metadata schema
- **name=** specifies the name of the metadata field
- **content=** specifies the value for that field

See Figure 3.8.

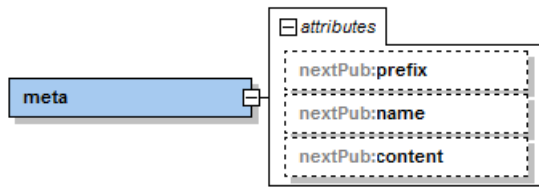


Figure 3.8 PSV <meta Element

**Note:** Reference the *PRISM Dublin Core Metadata Specification V3.0* and the *PRISM Metadata Specification V3.0* and the *PRISM Ad Materials Metadata Specification v3.0* for definitions of the metadata fields for the description metadata block.

### 3.4.5 Relations Metadata

This metadata provides information about how the content is related to other content. See Figure 3.9.

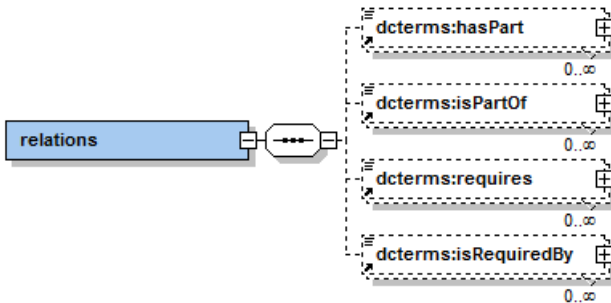


Figure 3.9 PSV Relations Metadata

Reference the *PRISM Subset of Dublin Core Metadata Specification V3.0* for definitions of the PRISM metadata fields for the relations metadata block.

### 3.4.6 Usage Rights Metadata

This metadata provides information about the usage rights for the content. See Figure 3.10.



Figure 3.10 PSV Usage Rights Metadata

Reference the *PRISM Usage Rights Metadata Specification V3.0* for definitions of the PRISM metadata fields for the usageRights metadata block.

## 3.4.7 Components Metadata

PSV is made up of the text of an article or chapter along with objects that are often created independently. For purposes of encoding, PSV identifies these objects by the generic term *Components*. A photo, a video, a recipe and even the sidebar of an article may be considered to be a component. Components often have their own descriptive metadata that must be captured in the source and that may even be delivered when content is packaged to be delivered to a distributor or device.

PSV has developed a mechanism for including component metadata in the metadata block and linking that metadata back to the component in the text. This mechanism is described in detail in Section 9 of this Specification.

## 3.4.8 PSV Where Used Metadata

The concept behind PSV is that the source must be platform agnostic so that it can be selected from a CMS, styled and transformed into the format for the delivery channel. In many cases, content will go to a variety of delivery channels at the same time. So we can't really track the platform of origin as we did with PRISM 2.1. Instead we must track usage of each unit of content by the publication, platform and device. We have also developed blocks to track the usage

information based on a publication issue, article, website, supplement and information about other usage such as in a book. See Figure3.11.

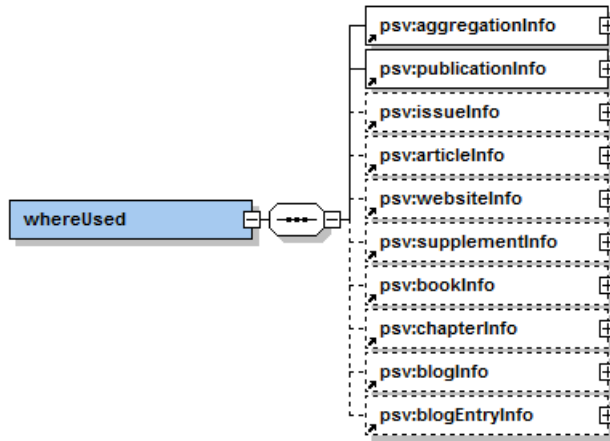


Figure 3.11 Where Used Metadata

## 3.4.8.1 Issue Information

The <psv:issueInfo block contains information about an issue of a magazine. See Figure 3.12.

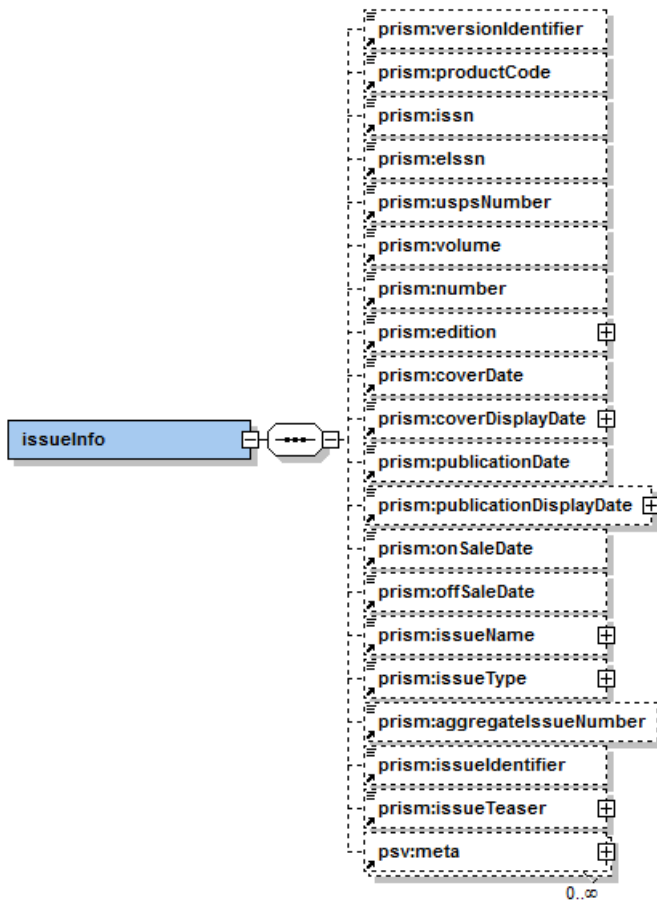
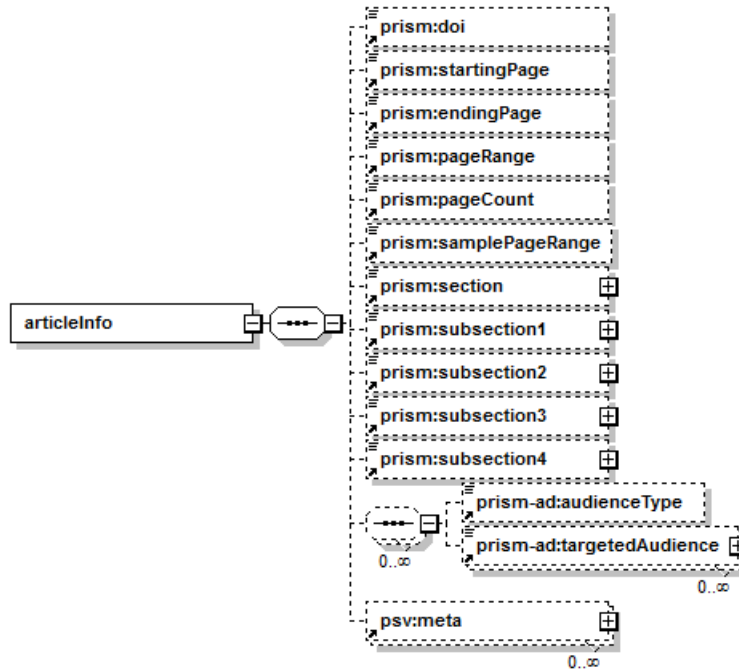


Figure 3.12 Issue Information Structure

## 3.4.8.2 Article Information

The <psv:articleInfo block contains information about an article within an issue. This metadata should be used in conjunction with issue information or with website information in the case where the article was only published online. See Figure 3.13.



3.13 PSV Article Information Structure

## 3.4.8.3 Website Information

The <psv:websiteInfo block contains information about the website where the content was used. See Figure 3.14.

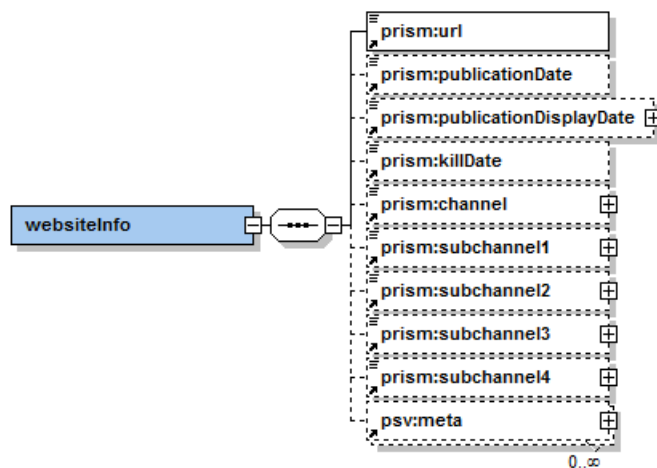


Figure 3.14 PSV Website Information Structure

**Note:** If a magazine article only appears online you must at a minimum provide the websiteInfo to specify the URL and the publication date.

#### 3.4.8.4 Supplement Information

The <psv:supplementInfo block contains information about a supplement where the content was used. See Figure 3.15.

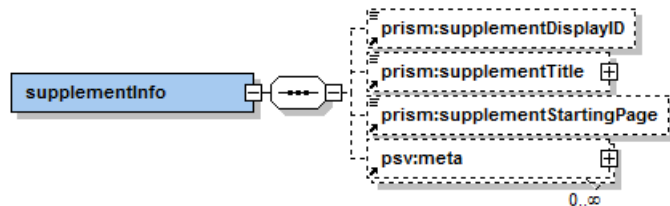


Figure 3.15 Supplement Information Structure

#### 3.4.8.5 Book Information

The <psv:bookInfo block contains information about a book where the content was used. See Figure 3.16.

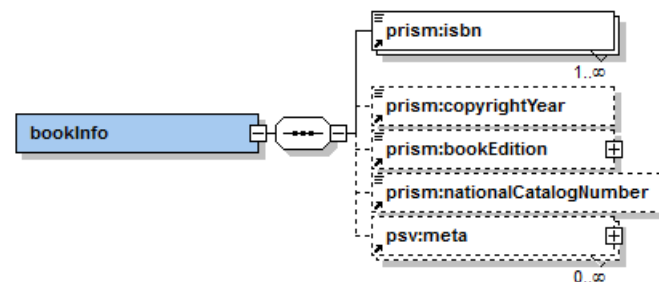


Figure 3.16 Book Information Structure

#### 3.4.8.6 Chapter Information

The <psv:chapterInfo block contains information about the chapter of a book where the content was used. This metadata should be used in conjunction with book information metadata. See Figure 3.17.

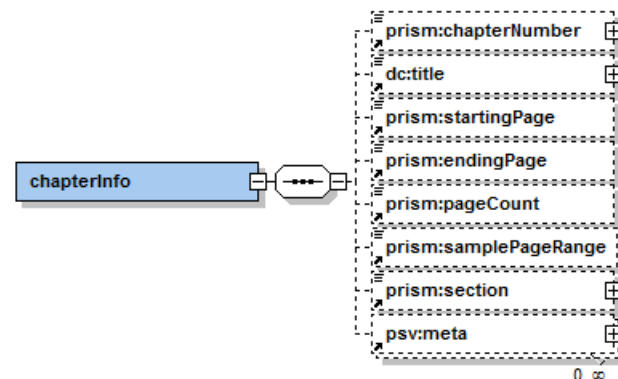


Figure 3.17 Chapter Information Structure

### 3.4.8.7 Blog Information

The <psv:blogInfo block contains information about a blog where the content was used. See Figure 3.18.

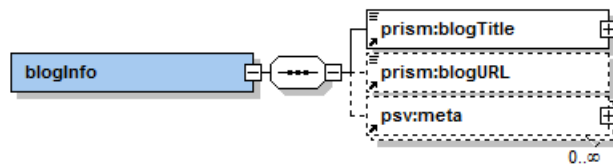


Figure 3.18 Blog Information Structure

### 3.4.8.8 Blog Entry Information

The <psv:blogEntryInfo block contains information about an entry of a blog where the content was used. This metadata should be used in conjunction with blog information metadata. See Figure 3.19.

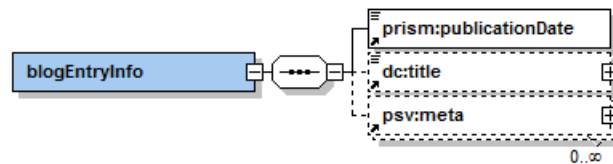


Figure 3.19 Blog Entry Information Structure

## 3.5 PSV Article HTML5 Head Encoding

The specification for the PSV includes an HTML5-compliant <head structure in addition the <psv:metadata block that contains the metadata for the article. This decision was made because the HTML5 <head structure contains elements that add functionality required for proper rendering and display of the elements in the body.

The HTML5 <head structure includes the title, base, link, script and style elements. See Figure 3.20.

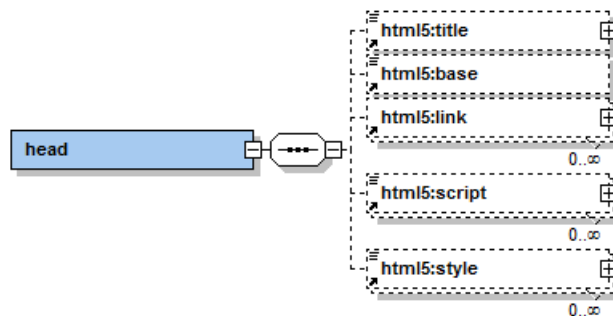


Figure 3.20 HTML5 Head Structure

### 3.5.1 HTML5 Head Elements

The following HTML5 Head elements provide functionality to support display of the body of the article.

### 3.5.1.1 Title

The HTML5 `<title>` tag specifies the title for a Web page:

```
<head>
<title>IDEAlliance Bulletin, September 9, 2011</title>
</head>
```

### 3.5.1.2 Base

The HTML5 `<base>` tag specifies a default URL and a default target for all links

```
<head>
<base href="http://www.idealliance.org/bulletin/issue09092011" target="_blank"
/>
</head>
```

### 3.5.1.3 Link

The HTML5 `<link>` tag defines the relationship between a document and an external resource, often a stylesheet.

```
<head>
  <link rel="stylesheet" type="text/css" href="SI_style.css" />
  <link rel="alternate" type="application/pdf" href="Article44.pdf" />
</head>
```

### 3.5.1.4 Script

The HTML5 `<script>` tag is used in the head when you want a script to be executed before the browser renders the page.

```
<head>
  <script src="js/scripts.js" type="text/javascript"/>
</head>
```

### 3.5.1.5 Style

The HTML5 `<style>` tag is used in the head when you want a style applied before the browser renders a page.

```
<head>
<style type="text/css">
h1 {color:red}
p {color:blue}
</style>
</head>
```

## 3.5.2 Recommendation Against Using the HTML5 `<meta>` tag

It is the intent that all PSV metadata in the Source be captured within the `<psv:metadata>` block using the `<psv:meta>` tag and that it *not* be duplicated or replaced using the HTML5 `<meta>` tag. The HTML5 `<meta>` tag has therefore not been included in the model for HTML5 `<head>` in this PSV Specification.

### 3.6 PSV Article HTML5 Body Encoding

---

This section provides summary of elements used for PSV XML source article content encoding. In moving away from the PRISM/PAM XML model to an HTML5-compliant model for coding the body of an article, we must take advantage of the new HTML5 elements that provide semantics that are useful in coding an article. HTML5 Working Draft describes the new `<article` tag as:

“The `<article` element represents a section of a page that consists of a composition that forms an independent part of a document, page, or site. This could be a forum post, a magazine or newspaper article, a Web log entry, a user-submitted comment, or any other independent item of content.”

#### 3.6.1 Required Use of HTML5 `<article` Tag

---

The HTML5 coding for the body of the article should begin with the new HTML5 element `<article`. The W3C definition of `<article` is quite broad. In concept `<article` can easily be applied to identify any independent unit of published content from an article to a blog entry or even the chapter of a book. See Figure 3.21.

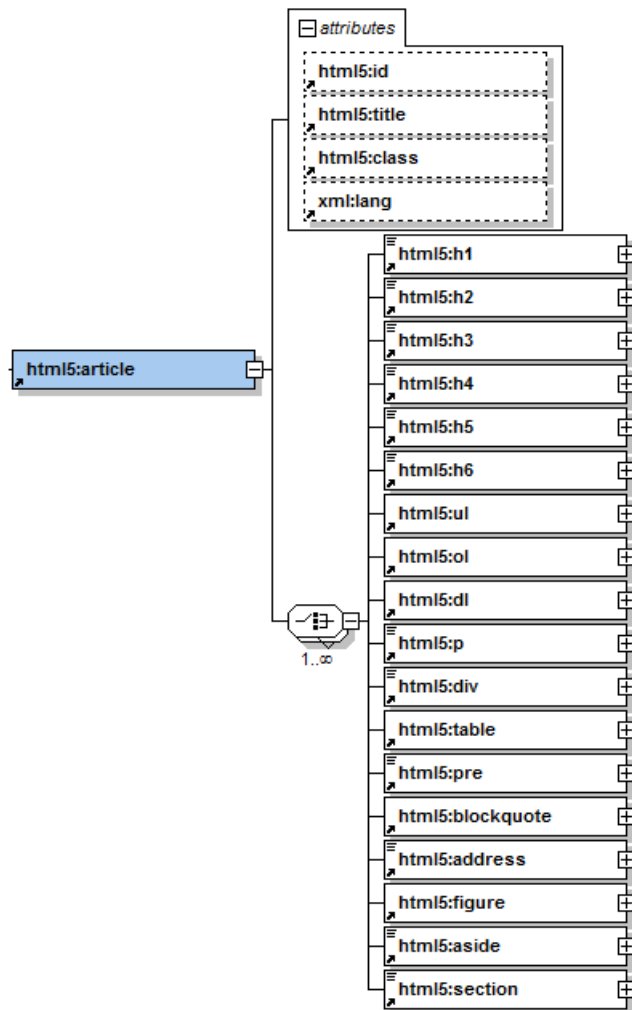


Figure 3.21 HTML5 Article Model

While all HTML5 tags are available for coding an article, several best practices are recommended to capture the nextPub/PRISM semantics. Those recommendations are outlined in the following sections.

**Note:** Currently no schema is available for the HTML5 Draft. Images in this Specification were generated from a Draft HTML5 schema developed especially to illustrate the PSV Recommendations.

### 3.6.2 Using the HTML5 `<aside` Element

We recommend the use of the new HTML5 `<aside` tag for those structures where the content is “aside” from the content of the article. These structures include box, sidebar, footnotes and pull quote.

The HTML5 Working Draft describes `<aside` as:

“The aside element represents a section of a page that consists of content that is tangentially related to the content around the aside element, and which could be considered separate from that content. Such sections are often represented as sidebars in printed typography.”

### 3.6.3 Semantic class= Attributes

The following chart provides the semantic class values for HTML5 tags and a suggestion about where the use of the class attributes is appropriate. Reference the PRISM Controlled Vocabularies Specification V3.0 [PRISMCVS] for complete documentation about the PSV Class Controlled Vocabulary.

Value	Definition	Elements Where Used
prism:box	Ancillary content that cannot stand alone and is presented with an article.	Aside (<aside>)
prism:caption	Text identifying or explaining, and printed in close proximity to, illustrations or other images. [AAT]	Heading Content (<h1-<h6>) or Paragraph (<p>)
prism:credit	An acknowledgement, appearing in the style of a caption.	Heading Content (<h1-<h6>) or Paragraph (<p>)
prism:byline	The byline (author) of the story.	Heading Content (<h1-<h6>) or Paragraph (<p>)
prism:dateline	The geographical location where the story was filed, e.g., city, state, and/or country where the story originated.	Heading Content (<h1-<h6>) or Paragraph (<p>)
prism:deck	A sub-head or secondary headline that generally is preceded by the article headline and precedes the body of the story.	Heading Content (<h1-<h6>)
prism:footnotes	Note above the footer of the page made up of the note and the reference to the note.	Aside (<aside>)
prism:lead-in	Eye-catching beginning to a caption.	Heading Content (<h1-<h6>) or Paragraph (<p>)
prism:layer**	Marks a layer of content to be presented in interactive displays on digital devices or browsers.	Division (<div>) within an Aside (<aside>) or Division (<div>) or Section (<section>)
prism:pullQuote	Eye-catching quote pulled from the text of the body of an article.	Aside (<aside>)
prism:recipe**	A recipe that is included in the text of the body of an article.	Aside (<aside>) or Division (<div>) or Section (<section>)
prism:sidebar	A substantive piece of content that can stand alone and is presented as part of an article.	Aside (<aside>)
prism:subtitle	The subtitle of a unit of content	Heading Content (<h1-<h6>) or Paragraph (<p>)
prism:teaser	A short description of the resource.	Heading Content (<h1-<h6>) or Paragraph (<p>)
prism:title**	The title of the unit of content.	Heading Content (<h1-<h6>)

\*\* indicates a new class in PRISM 3.0

**Note:** the PSV content class CV terms have a prism: prefix to indicate the namespace from which the value was taken. This is informational only and does not imply XML namespace processing will occur.

### 3.6.4 Semantic Inline Class= Markup

Some of the semantic richness provided by PRISM is captured by applying inline class attributes. The recommended approach is to use the <span element with a class attribute with values from a PSV Inline Class Controlled Vocabulary. Reference the PRISM Controlled Vocabularies Specification V3.0 [PRISMCVS] for complete documentation about the PSV Inline Class Controlled Vocabulary.

#### 3.6.4.1 Inline Classes

Value	Definition	Elements Where Used
prism:academicField	Refines dc:subject by specifying an academic speciality.	Span (<span)
prism:event	Refines dc:subject by specifying an event such as the "Kentucky Derby," "Grammy Awards" or "4 <sup>th</sup> of July Parade" within the content of an article.	Span (<span)
prism:industry	Refines dc:subject by specifying an industry sector such as Automotive, Publishing or Aerospace within the content of an article.	Span (<span)
prism:keyword	Identifies a word or words to be used for search within the content of an article.	Span (<span)
prism:link**	A link to other information such as a URL, email or twitter hash tag.	Span (<span)
prism:location	Refines dc:subject by specifying a geographic locations such as "New York City," "Georgetown," or "Canada" within the content of an article.	Span (<span)
prism:object	Refines dc:subject by specifying a physical object such as a book, a horse, or a house within the content of an article.	Span (<span)
prism:organization	Refines dc:subject by specifying the name of any organization, such as a government, department, ministry, corporation, charity, private company, or club within the content of an article.	Span (<span)
prism:person	Refines dc:subject by specifying the name of a human individual (real or imaginary) within the content of an article.	Span (<span)
prism:profession	Refines dc:subject by specifying a profession.	Span (<span)
prism:sport	Refines dc:subject by specifying a sport.	Span (<span)
prism:subtitle	Identifies a subtitle.	Span (<span)
prism:ticker	Identifies mentions of the appearance of stock ticker symbols within the content of an article.	Span (<span)
prism:title	Identifies a title.	Span (<span)

Value	Definition	Elements Where Used
prism:timePeriod	Identifies mentions of a temporal time frame such as "Dark Ages," "Roaring Twenties," or "Golden Age" within the content of an article.	Span (<span>)

\*\* indicates a new inline class

**Note:** The PSV inline content class CV terms have a prism: prefix to indicate the namespace from which the value was taken. This is informational only and does not imply XML namespace processing will occur.

### 3.6.5 Using the HTML5 Nav Element

The <nav> element should contain a set of navigation links, either to other pages or fragment identifiers in the current page. Referencing it with semantic class names is simple.

### 3.6.6 Sample Coding for Body Content

Here is some sample content coded in HTML5:

```
<body>
  <article class="opinion" id="xyz">
    <h1 class="prism:articleTitle">Oh, The Places They&apos;ll Go</h1>
    <p class="prism:deck">Why are fans so aglow in Colorado? Because Tulo,
    CarGo and Ubaldo—and a park that no longer plays like the game&apos;s highest
    plateau—are making the Rockies&apos; title hopes grow</p>
    <p>It seemed like a good idea to Troy Tulowitzki when he allowed fans to
    choose his walk-up music—the song played over the <span
    class="prism:location">Coors Field</span> public-address system as he
    approaches the batter&apos;s box—in an online poll before the season. But after
    the Rockies&apos; prolific shortstop followed his standout 2010 (.315 average,
    27 home runs and a fifth-place finish in the National League MVP voting) by
    going hitless in his first eight at bats of this year, he quickly dumped the
    people&apos;s choice, <span class="prism:person">Katy Perry</span>&apos;s <span
    class="prism:title">Firework,</span> for something more in his comfort zone—
    <span class="prism:title">Baby,</span> by <span class="prism:person">Justin
    Bieber</span>.</p>
    <aside class="prism:pullQuote">
      <p>&quot;WE TALK ALL THE TIME ABOUT HOW TO SET THE RIGHT TONE,&quot;
      CARGO SAYS OF TULO. &quot;WHAT CAN WE DO TODAY TO MAKE THIS TEAM
      BETTER?&quot;</p>
    </aside>
```



### 3.7 Media Blocks or Figures

This section provides documentation and guidelines for encoding PSV media blocks. The media block concept was initially based on the `pam:media` element currently used in the existing PRISM Aggregator Message. A media block presents *one or more media objects along with ancillary text content* so it is what HTML5 calls a “grouping” structure.

After studying HTML5, we believe the `<figure>` element contains richness required to express the wide variety of media blocks that we require for tablet editions. See Figure 3.13.

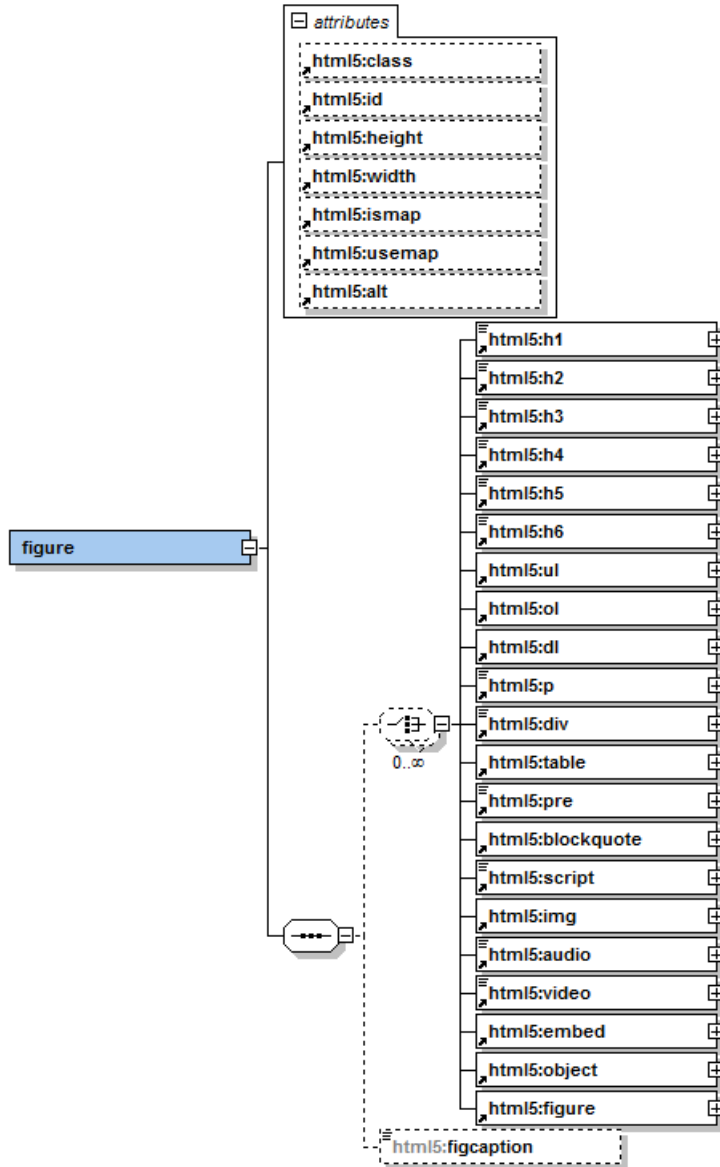


Figure 5.1 Figure Model

### 3.7.1 About the HTML5 Figure

An HTML5 figure is a media block typically presenting *one or more media objects along with ancillary text content*. This means that the figure is what HTML5 calls a “grouping structure.”

A `<figure` is not a required to embed rich media objects in an article. If you wish to link a rich media object right into the content stream you may use an `<a` tag to link to the object, just as you do on a Web page. You can also use `<img`, `<audio`, or `<video` directly in the content stream. If you want to include other content associated with the media, such as a caption, or if you need to include more than a single media object, then you should use the HTML5 `<figure` to do so.

### 3.7.2 Figure class= Attribute

Semantics (presentation types) have been developed to express the intended type of media block being specified with the HTML5 `<figure` element.

Reference the *PRISM Controlled Vocabulary Specification V3.0* for complete documentation about the PRISM Presentation Type Controlled Vocabulary.

Some of presentation type classes include:

Value	Definition	Elements Where Used
prism:animation	A media block, or figure, that contains animation	Figure (<figure
prism:audio	A media block, or figure, that presents an audio	Figure (<figure
prism:codeBlock	A media block, or figure, that contains computer code	Figure (<figure
prism:complexBlock	A media block, or figure, that contains other figures	Figure (<figure
prism:gallery	A media block, or figure, that presents a gallery of photos and or text and or video that swap or are activated by a touch of an icon or map point.	Figure (<figure
prism:interactive	A media block, or figure, that contains interactive content	Figure (<figure
prism:photo	A media block, or figure, that contains a single photograph	Figure (<figure
prism:slideShow	A media block, or figure, that presents a series of photos and/or text blocks in a sequential order that appear, in order, with a ***	Figure (<figure)
prism:video	A media block, or figure, that presents a video	Figure (<figure

**Note:** the PSV Presentation Type CV terms have a prism: prefix to indicate the namespace from which the value was taken. This is informational only and does not imply XML namespace processing will occur.

### 3.7.3 Figure Content class= Attributes

The following chart provides the class values for figure content (text) and a suggestion about where the use of these class attributes is appropriate.

Value	Definition	Elements Where Used
prism:credit	An acknowledgement, appearing in the style of a caption.	Heading Content (<h1-<h6) or Paragraph (<p)
prism:mediaTitle	The title of the media block or figure	Heading Content (<h1-<h6)

### 3.7.4 Sample Coding

Here is a simple media block tagged with HTML5:

```
<figure class="prism:photo">
  
  <p class="prism:mediaTitle">PEAK PERFORMERS</p>
  <p class="prism:credit">ROBERT BECK</p>
  <figcaption>Gonzalez, Tulowitzki and Jimenez are all entering their
primes and locked up through at least 2014, giving the Rockies the game's
best young core.</figcaption>
</figure>
```

**Note:** As well as providing semantic meaning to an HTML5 structure, the value of the class= attribute can be used to link in a formatting style from a CSS style sheet.

### 3.7.5 About HTML5 Event Attributes

HTML5 introduces new features that are designed to make it easy to include and handle multimedia and graphical content on the web without having to resort to proprietary plug-ins and APIs. One of these features is a robust set of “Event” attributes.

When someone visits a website or uses an app on a tablet, they do things like click on text or an image, touch, swipe or tap. These are examples of what JavaScript calls an event. HTML5 has added a broad range of specifications for event handlers expressed as a value of an event attribute. These attributes can be used to trigger a JavaScript or VBScript code to give action to the display.

At one time, the PSV Media Object team sought to develop a set of “display hint” attributes to record intention for the functionality of any multimedia object in a publication. However, PSV has opted to go directly to HTML5 multimedia functionality and use the HTML5 events attributes to serve the same purpose without adding an additional coding layer to be interpreted by the application.

HTML5 Event Attributes can trigger scripts for the following:

- Window Events
- Forms Events
- Mouse Events
- Keyboard Events
- Touch Events

Of particular interest to PSV is the W3C work to define touch events, as tablets have a touch interface. Apple introduced their [touch events API](#) in iOS 2.0 and this has become a de-facto

standard with Android adding adoption in their OS. Recently a W3C working group has come together to work on this [Touch Events Specification](#) to become part of HTML5.

Three event types are being developed by the W3C Touch Events Working Group:

- ***touchstart* Event:** This event can trigger a script when the user places a touch point on the touch surface.
- ***touchmove* Event:** This event can trigger a script when the user moves a touch point along the touch surface.
- ***touchend* Event:** This event can trigger a script when the user removes a touch point from the touch surface.

By using HTML5 as an encoding base, PSV will access the power within HTML5 to create dynamic, multimedia displays.

### 3.7.6 About Media Metadata

---

In PSV, the figure as well as each media object (such as a photo or a video) is considered to be a *Component*. Metadata for each component is encoded using the PSV component metadata encoding model. See Section 9.

### 3.7.7 About Complex Media Models

---

Sometimes media models are complex, that is, made up of more than one rich media object. An example of this is a slideshow. In this case one must code a `<figure>` within a `<figure>`. See the following example coding for a slideshow:

```
<figure class="prism:slideshow">
  <p class="prism:mediaTitle">SLIDESHOW: SEE THE VISITING PITCHERS WHO
  PERFORM BEST AT COORS FIELD</p>
  <figure class="prism:photo" id="110540ss1">
    
    <p class="prism:mediaTitle">TIM LINCECUM</p>
    <p class="prism:credit">ROBERT BECK</p>
    <figcaption>TIM LINCECUM In nine career starts at Coors Field, the
    Freak has a 3.49 ERA, the best among all hurlers who have thrown at least 40
    innings there and never played for the Rockies.</figcaption>
  </figure>
  <figure class="prism:photo">
    
    <p class="prism:mediaTitle">TOM GLAVINE</p>
    <p class="prism:credit">ROBERT BECK</p>
    <figcaption>The Braves lefty made 13 starts at Coors (including eight
    in the prehumidor days) and had a 3.68 ERA there, second best among
    visitors.</figcaption>
  </figure>
  <figure class="prism:photo">
    
    <p class="prism:mediaTitle">DAN HAREN</p>
    <p class="prism:credit">GARRETT W. ELLWOOD/GETTY IMAGES</p>
    <figcaption>The righthander (now with the Angels) has made seven
    starts at Coors and gone with a 3.80 ERA there, third best among visiting
    pitchers.</figcaption>
  </figure>
  <figure class="prism:photo">
```

```

<p class="prism:mediaTitle">BRETT MYERS</p>
<p class="prism:credit">DUSTIN BRADFORD/ICON SMI</p>
<figcaption>The righty (now with the Astros) has a career ERA of 4.18
but that figure drops to 3.92 (with a 5â€"0 record) in his six starts at
Coors.</figcaption>
</figure>
<figure class="prism:photo">
  
  <p class="prism:mediaTitle">BRAD PENNY</p>
  <p class="prism:credit">ROBERT BECK</p>
  <figcaption>In 11 starts at Coors, the righty (now with the Tigers)
is 6.1 with a 3.92 ERA, tying him with Myers for the fourth-best mark there
among visitors.</figcaption>
</figure>
</figure>
```



### 3.8 PSV Recipes

This section provides documentation and guidelines for encoding PSV recipes. The PSV recipe is a structure within an article that has special recipe semantics. In addition, a recipe has unique metadata that should be captured in the source.

After studying HTML5, we believe that a recipe will be either a `<div>`, a `<section>`, or even an `<aside>` with the `class="recipe"`.

**Note:** Recipes contained within an article are not required to be coded in the stream of article content. Recipes may also be coded as a standalone article type and pulled into the article using an `<a>` tag.

#### 3.8.1 Class Attributes in Recipes

When a recipe appears in a magazine article, it has its own unique semantics to be captured. Like the semantics of the general article, the recommendation of PSV is to capture the semantics using the `class=` attribute of HTML. The following chart provides some of the class values for recipe text and a suggestion about where the use of the recipe class attributes is appropriate.

Value	Definition	Elements Where Used
prm:duration	The total amount of time required to prepare the recipe	Paragraph ( <code>&lt;p&gt;</code> )
prm:ingredients	A division of a recipe that contains the ingredients	Division ( <code>&lt;div&gt;</code> )
prm:instructions	A division of a recipe that contains the step-by-step directions for a recipe	Division ( <code>&lt;div&gt;</code> )
prm:nutrition	A division of a recipe that contains nutritional information for the recipe	Paragraph ( <code>&lt;p&gt;</code> )
prm:recipeNote	A division of a recipe that contains a special note about this recipe. Looks like a "box" of an article. May contain content such as "Serving Suggestions," "Tips" or "How to Decorate"	Division ( <code>&lt;div&gt;</code> ) or Aside ( <code>&lt;aside&gt;</code> )
prm:recipeTitle	The title of a recipe	Heading Content ( <code>&lt;h1&gt;-&lt;h6&gt;</code> )
prm:recipeDescription	Text providing a brief description of the recipe. May look like an article teaser, but for a recipe	Paragraph ( <code>&lt;p&gt;</code> )
prm:servingSize	The size of an individual portion of the recipe	Paragraph ( <code>&lt;p&gt;</code> )
prm:yield	The number of servings the recipe makes based on the serving size	Paragraph ( <code>&lt;p&gt;</code> )

Reference the PRISM Recipe Metadata Specification V3.0 [PRISMRMS] and PRISM Controlled Vocabulary Specification V3.0 [PRISMCVS] for complete documentation about the recipe class CV.

**Note:** the PSV Recipe Class CV terms have a `prm:` prefix to indicate the namespace from which the value was taken. This is informational only and does not imply XML namespace processing will occur.

### 3.8.2 Sample Coding

Here is the recipe coded in the `<body>` with HTML5:

```
<section class="prism:recipe" id="1060759302">
  <p class="prm:recipeTitle">
    PIM'S SUPER-QUICK AND FANTASTIC TOMATO SAUCE</p>
  <p class="yield">SERVES 2 TO 4 (ENOUGH FOR 8 TO 10 OZ. PASTA) | 30
MINUTES</p>
  <p class="prm:recipeDescription">This sauce, adapted from chez
pim.com, can be made in the time it takes to boil pasta. You can also use it on
homemade pizza, or spoon cold out of the fridge onto a slice of toasted crusty
bread.</p>
  <div class="prm:ingredients">
    <p>About 2 lbs. Early Girl tomatoes</p>
    <p>About 4 cup olive oil</p>
    <p>1 to 2 garlic cloves (optional), peeled and minced</p>
    <p>Salt</p>
    <p>2 tsp. balsamic or sherry vinegar (optional)</p>
    <p>Red chile flakes (optional)</p>
    <p>Handful of basil leaves (optional)</p>
  </div>
  <div class="prm:instructions">
    <p>1. BRING a large pot of water to a boil. Cut a cross on bottom
of each tomato. Remove pot from heat, plunge tomatoes in water, and let sit for
1 to 2 minutes, until skins loosen at cross mark. Spoon tomatoes into a
colander and rinse
with cold water.</p> . . .
    <p>4. SIMMER juice until thick enough to leave a mark when you
scrape bottom of pan, 2 to 3 minutes. Check seasoning. If your tomatoes are not
very tasty, add vinegar and a bit more salt, and chile flakes if you want a
kick. Stir pulp and basil into sauce.</p>
  </div>
  <p class="prm:recipeNote">Make ahead: 1 week, chilled.</p>
  <p class="nutrition">PER SERVING 157 CAL., 78% (123 CAL.) FROM FAT;
1.9 G PROTEIN; 14 G FAT (1.9 G SAT.); 8.1 G CARBO (2.5 G FIBER); 86 MG SODIUM;
0 MG CHOL.</p>
</section>
```

### 3.8.3 About Recipe Metadata

In the previous example we were able to bring the content of the recipe into HTML5 tagging quite easily. However the metadata for the recipe was lost. In nextPub, each recipe is considered to be a *Component*. Metadata for each recipe, or component, is encoded using the PSV component metadata encoding model. See Section 9.

### 3.9 Advertising Materials

One consideration of a nextPub model is the inclusion of Ad Materials. It is most likely that Ads will not be stored in the source XML database. However this model provides us with a starting point for including Ad Material with source content for delivering it to devices.

#### 3.9.1 About Advertising Metadata

If the PSV content unit is advertising material, it is expected that prism:contentType will be given a value of “advertisement.” In addition each advertisement needs to have identification within the ad identification block of article identification metadata.

**Note:** For PSV Version 1.0, it is assumed that only full page advertisements are within scope of the specification.

Two workflows are required to support ad placement in any publication, print or on a tablet. The first is the transaction or ad booking workflow and the second is the materials production workflow. Metadata from each of these workflows is appropriate for inclusion in the XML Source and for materials delivered to distributors and devices. Both are represented in the PSV advertising description model.

**Note:** Many advertising metadata fields have been defined by AdsML/GWG, Ad-ID or both. PSV b is also using some fields from the new PRISM Advertising Metadata Namespace (prism-ad:) when appropriate fields from established namespaces are not available.

#### 3.9.2 Ad Identification

Just as any article needs a unique identifier, so does an advertisement. PSV requires the AdsML PrimaryMaterialsID and allows an optional ID Type field to specify the type of identifier that is used for this ad. One type of unique identifier is the Ad-ID. In addition, a human readable title for the advertisement is also required. See Figure 3.22.

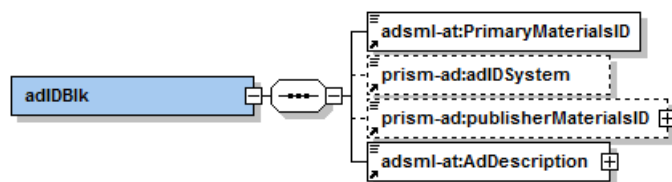


Figure 3.22 Ad Identification Block Structure

Reference the PRISM Advertising Metadata Specification V 3.0 0 [PRISMAMS] and the PRISM Basic Metadata Specification V3.0 [PRISMBMS] for definitions of the metadata fields for the PSV ad identification block.

### 3.9.3 Ad Description Metadata

Two workflows are required to support ad placement in any publication, print or on a tablet. One workflow is the transaction or ad booking workflow and another is the materials production workflow. Both are represented within the PSV Ad Description metadata block.

#### 3.9.3.1 Ad Materials

Metadata from the materials production workflow is found in the Ad Materials block. See Figure 3.23.

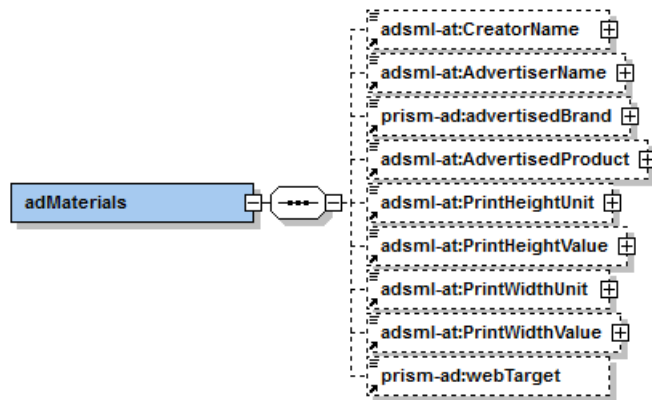


Figure 3.23 Ad Materials Structure

Reference the PRISM Advertising Metadata Specification V 3.0 0 [PRISMAMS] and the PRISM Basic Metadata Specification V3.0 0 [PRISMBMS] for definitions of the metadata fields for the PSV ad materials block. Contents of this metadata block were designed to be compatible with required fields from Ad-ID.

#### 3.9.3.2 Ad Booking

Two workflows are required to support ad placement in any publication, print or on a tablet. One workflow is the transaction or ad booking workflow and another is the materials production workflow. Metadata from the ad booking workflow is found in the Ad Booking block. See Figure 3.24.

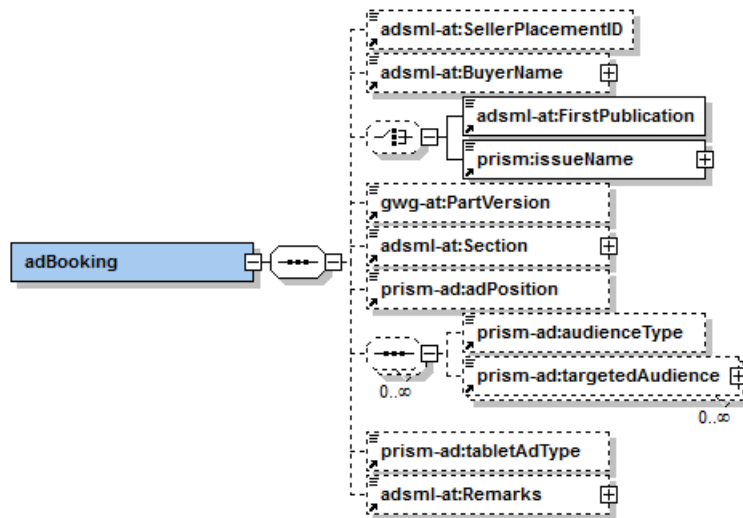


Figure 3.24 Ad Booking Structure

Reference the *PRISM Ad Materials Metadata Specification V 3.0* for definitions of the metadata fields for the PSV ad booking block. Contents of this metadata block were designed to be compatible with required fields from Ad-ID.

### 3.9.4 PSV Ad Example

This example shows how an advertisement would be encoded for PSV XML Source.

```
<?xml version='1.0' encoding='UTF-8'?>
  <psv:psv>
    <psv:metadata>
      <psv:contentType>advertisement</psv:contentType>
      <psv:uniqueID>
        <psv:adIDBlk>
          <adsm1-at:PrimaryMaterialsID>wek2231490</adsm1-at:PrimaryMaterialsID>
          <prism-ad:adTitle> Mac & Cheese is for adults too!</prism-
ad:adTitle>
        </psv:adIDBlk>
      </psv:uniqueID>
      <psv:description>
        <psv:adMaterials>
          <adsm1-at:CreatorName>Pipeline</adsm1-at:CreatorName >
          <adsm1-at:AdvertiserName>Kraft</adsm1-at:AdvertiserName>
          <adsm1-at:AdvertisedProduct>Mac & Cheese</adsm1-
at:AdvertisedProduct>
        </psv:adMaterials>
      </psv:description>
      <psv:whereUsed>
        <psv:aggregationInfo>
          <prism:aggregationType>magazine</prism:aggregationType>
          <prism:platform>print</prism:platform>
        </psv:aggregationInfo>
        <psv:publicationInfo>
          <dc:publisher>Hearst</dc:publisher>
          <prism:publicationName>Esquire</prism:publicationName>
        </psv:publicationInfo>
        <psv:issueInfo>
          <prism:coverDate>11-01-2011</coverDate>
        </psv:issueInfo>
      </psv:whereUsed>
    </psv:metadata>
  </psv:psv>
</xml>
```

```
<prism:issueName>November 2011</prism:issueName>
</psv:issueInfo>
<psv:articleInfo>
  <prism:section>Life Style</prism:section>
  <prism:startingPage>46</prism:startingPage>
</psv:articleInfo>
</psv:whereUsed>
</psv:metadata>
```

Here is an example of how an ad might be coded with HTML5 in the body. Note that because we set the prism:contentType to “advertisement” we know that the article is an advertisement.

```
<body>
<article>
  <figure class="prism:complexBlock">
    <figure class="prism:photo">
      
    </figure>
    <figure class="prism:video">
      <embed width="320" height="240"
src="http://mlb.com/video/play.jsp?content_id=2586034"/>
    </figure>
  </figure>
</article>
</body>
```

### 3.10 PSV Components

---

The PRISM Source Vocabulary Specification defines rich semantic encoding for source content so that it can be aggregated, transformed and served to a wide variety of output devices including print, eReaders, mobile tablet devices and beyond. The XML Source is made up of the text of the article along with objects that are created independently of the article text and can stand on their own. For purposes of encoding, PSV identifies these objects by the generic term *Components*. A photo, a video, a recipe and even a sidebar may be considered to be an article component.

#### 3.10.1 About Component Metadata

---

Because components within a PSV article are independent or can stand alone, these components often have their own descriptive metadata that must be captured in the source and that may even be delivered when content is packaged to be delivered to a distributor or device. HTML5 technically only allows for metadata in the <head but not in the body where article components occur. If the user wishes to include component-level metadata in the XML content source, the metadata for each component must be placed in the <psv:metadata block and linked to the component in the HTML5-compliant body by matching the id= in the body to a refines= attribute in the components block. Note that the refines= syntax matches that used in EPUB 3 where refines= is a “URI”. This means that the value is preceded by a # sign to indicate the path for the link being specified.

If, for example, a photo has metadata such as the name of the photographer or the person pictured in the photograph, this metadata should be encoded as part of the PSV in the components metadata block and linked to the photo by referencing the ID of the photograph. Likewise, metadata about a recipe such as the name of the chef that created the recipe or the type of cuisine should be encoded as part of the PSV components metadata block and linked to the recipe.

#### 3.10.2 The Components Block

---

Metadata for any PSV component should be captured in the <psv:components block of the <psv:metadata element. This block provides a generic approach for encoding component metadata from any PRISM vocabulary metadata or even outside metadata domains. See Figure 3.25.

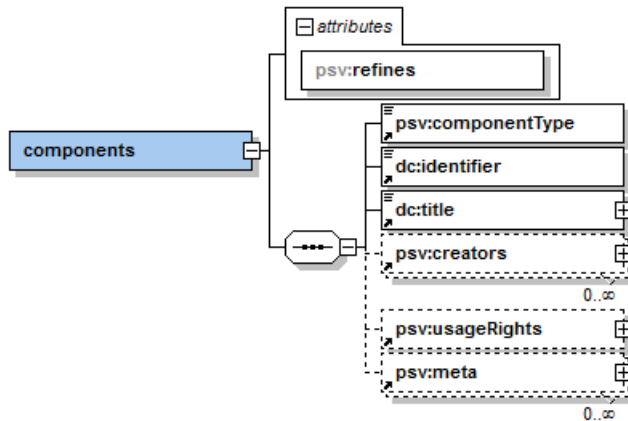


Figure 3.25 Components Metadata Structure

### 3.10.2.1 Linking a Component to Its Metadata

Metadata for any component is linked by matching the `id=` attribute on the component as it appears in the body to the components metadata block using a `refines=` attribute. This means that if an entity such as an image, video or recipe has metadata, it must have a unique identifier (`id=`) specified so the link can be made.

### 3.10.3 Image Component Metadata Example

Here is an image coded in HTML5. Note that an `id` has been assigned to the image so it can be linked to component metadata for that image in the `<psv:metadata>` element:

```
<figure class="prism:photo">
  
  <p class="prism:mediaTitle">PEAK PERFORMERS</p>
  <p class="prism:credit">ROBERT BECK</p>
  <figcaption>Gonzalez, Tulowitzki and Jimenez are all entering their
  primes and locked up through at least 2014, giving the Rockies the game's
  best young core.</figcaption>
</figure>
```

Here is how the metadata is coded in the `<psv:metadata>` element. Note that the `refines=` attribute on the `<components>` element links this metadata to the image in the body:

```
<?xml version='1.0' encoding='UTF-8'?>
<psv:psv>
  <psv:metadata>
    <prism:contentType>article</prism:contentType>
    . . .
    <psv:components refines="#10540_opy6-95787">
      <psv:componentType>image</psv:componentType>
      <dc:identifier>10540</dc:identifier>
      <dc:title>PEAK PERFORMERS</dc:title>
      <psv:creators>
        <dc:creator class="photographer">Robert Beck</dc:creator/>
      </psv:creators>
      <psv:usageRights>
        <pur:reuseProhibited>no</pur:reuseProhibited/>
      </psv:usageRights>
      <psv:meta prefix="dc:" name="identifier" content="kk12012.jpg"/>
    </psv:components>
  </psv:metadata>
</psv:psv>
```

```

<psv:meta prefix="dc:" name="format" content="image/jpeg"/>
<psv:meta prefix="dc:" name="subject" content="Photo of two Rockies
players that are prime performers"/>
</psv:mediaComponent>
</psv:components>
</psv:metadata>

```

### 3.10.4 Recipe Metadata Example

Here is the recipe coded with HTML5. Note the id= attribute has been specified in order to link the recipe with the metadata in the <psv:metadata element.

```

<section class="prism:recipe" id="1060759302">
  <p class="prm:recipeTitle">
    PIM'S SUPER-QUICK AND FANTASTIC TOMATO SAUCE</p>
  <p class="prm:yield">SERVES 2 TO 4 (ENOUGH FOR 8 TO 10 OZ. PASTA) |
30 MINUTES</p>
  <p class="prm:recipeDescription">This sauce, adapted from chez
pim.com, can be made in the time it takes to boil pasta. You can also use it on
homemade pizza, or spoon cold out of the fridge onto a slice of toasted crusty
bread.</p>
  <div class="prm:ingredients">
    <p>About 2 lbs. Early Girl tomatoes</p>
    <p>About 4 cup olive oil</p>
    <p>1 to 2 garlic cloves (optional), peeled and minced</p>
    <p>Salt</p>
    <p>2 tsp. balsamic or sherry vinegar (optional)</p>
    <p>Red chile flakes (optional)</p>
  </div>
  <div class="prm:instructions">
    <p>1. BRING a large pot of water to a boil. Cut a cross on bottom
of each tomato. Remove pot from heat, plunge tomatoes in water, and let sit for
1 to 2 minutes, until skins loosen at cross mark. Spoon tomatoes into a
colander and rinse with cold water.</p> . . .
    <p>4. SIMMER juice until thick enough to leave a mark when you
scrape bottom of pan, 2 to 3 minutes. Check seasoning. If your tomatoes are not
very tasty, add vinegar and a bit more salt, and chile flakes if you want a
kick. Stir pulp and basil into sauce.</p>
  </div>
  <p class="prm:recipeNote">Make ahead: 1 week, chilled.</p>
  <p class="nutrition">PER SERVING 157 CAL., 78% (123 CAL.) FROM FAT;
1.9 G PROTEIN; 14 G FAT (1.9 G SAT.); 8.1 G CARBO (2.5 G FIBER); 86 MG SODIUM;
0 MG CHOL.</p>
</section>

```

Here is how the metadata would be pulled into the head. Note that the idref on the recipe metadata block links this metadata to the recipe section in the body:

```

<?xml version='1.0' encoding='UTF-8'?>
  <psv:nextPub>
    <psv:metadata>
<psv:metadata>
  <prism:contentType>article</prism:contentType>
  . . .
  <psv:components refines="#1060759302">
    <dc:identifier>R1060759302AB</dc:identifier>
    <dc:title>PIM'S SUPER-QUICK AND FANTASTIC TOMATO SAUCE</dc:title>
    <psv:creators>
      <dc:creator role="prm:chef">PIM TECHAMUANVIVIT</dc:creator>
    </psv:creators>

```

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```
<psv:meta prefix="prm:" name="recipeSource" content="chef"/>
<psv:meta prefix="prm:" name="recipeSource" content="tvShow"/>
<psv:meta prefix="prm:" name="dishType" content="sauceOrCondiment"/>
</psv:components>
</head>
```

## Appendix A SAMPLE TAGGING WITHOUT COMPONENTS

```
<?xml version='1.0' encoding='UTF-8'?>
  <psv:psv>
    <psv:metadata>
      <prism:contentType>article</prism:contentType>
      <psv:uniqueID>
        <psv:IDBlk>
          <dc:identifier>20110502044</dc:identifier>
          <dc:title> Oh, The Places They&apos;ll Go</dc:title>
        </psv:IDBlk>
      </psv:uniqueID>
      <psv:description>
        <prism:genre>feature</prism:genre>
        <prism:genre>opinion</prism:genre>
        <dc:creator prism:role="author">Phil Taylor</dc:creator>
        <prism:wordcount>2175</prism:wordcount>
        <prism:organization>Colorado Rockies</prism:organization>
      </psv:description>
      <psv:whereUsed>
        <psv:aggregationInfo>
          <prism:aggregationType>magazine</prism:aggregationType>
          <prism:platform>tablet</prism:platform>
          <prism:device>iPad 1</prism:device>
        </psv:aggregationInfo>
        <psv:publicationInfo>
          <prism:publisher>IDEAlliance</prism:publisher>
          <prism:publicationName>Spectrum</prism:publicationName>
        </psv:publicationInfo>
        <psv:issueInfo>
          <prism:issueIdentifier>SP20110502</prism:issueIdentifier>
          <prism:coverDate>2011-05-02</prism:coverDate>
          <prism:coverDisplayDate>May 2, 2011</prism:coverDisplayDate>
          <prism:volume>114</prism:volume>
          <prism:number>18</prism:number>
          <prism:issn>0038-822X</prism:issn>
        </psv:issueInfo>
        <psv:articleInfo>
          <prism:startingPage>44</prism:startingPage>
          <prism:section>BASEBALL</prism:section>
          <prism:subsection1>THE ROCKIES</prism:subsection1>
        </psv:articleInfo>
      </psv:whereUsed>
    </psv:metadata>
    <head>
      <base href="http://www.idealliance.org/SP/SP20110502" target="_blank" />
      <link rel="stylesheet" type="text/css" href="SI_style.css" />
      <link rel="alternate" type="application/pdf" href="Article44.pdf" />
      <script src="js/scripts.js" type="text/javascript"/>
    </head>
    <body>
      <article>
        <p class="prism:deck">Why are fans so aglow in Colorado? Because Tulo, CarGo and Ubaldo and a park that no longer plays like the game&apos;s highest plateau are making the Rockies&apos; title hopes grow!</p>

        <figure class="prism:photo">
          
          <p class="prism:mediaTitle">PEAK PERFORMERS</p>
          <p class="prism:credit">ROBERT BECK</p>
        </figure>
      </article>
    </body>
  </psv:psv>
</xml>
```

```

    <figcaption>Gonzalez, Tulowitzki and Jimenez are all entering their
    primes and locked up through at least 2014, giving the Rockies the game's
    best young core.</figcaption>
  </figure>

  <p><span class="strong">It seemed</span> like a good idea to Troy
  Tulowitzki when he allowed fans to choose his walk-up music, the song played
  over the <span class="prism:location">Coors Field</span> public-address system
  as he approaches the batter's box" in an online poll before the season. But
  after the Rockies' prolific shortstop followed his standout 2010 (.315
  average, 27 home runs and a fifth-place finish in the National League MVP
  voting) by going hitless in his first eight at bats of this year, he quickly
  dumped the people's choice, Katy Perry's <span
  class="prism:title">Firework,</span> for something more in his comfort
  zone" <span class="prism:title">Baby,</span> by <span
  class="prism:person">Justin Bieber</span>.</p>

  <p>It might be a stretch to say that Tulo, as he's widely known, has
  Bieber fever, but he is partial to the teen pop star's music and
  doesn't care who knows it. He and teammate <span
  class="prism:person">Jason Giambi</span> took in a Bieber concert during spring
  training, and Tulo is willing to put up with the inevitable ribbing from the
  rest of the Rockies, who keep his locker at Coors stocked with Bieber-abilia.
  Last week his space was adorned with a glittery backpack and a T-shirt bearing
  the singer's likeness that most middle school girls would surely be proud
  to own. "Lots of comedians in this clubhouse," Tulowitzki says.
  "I just go with the flow."</p>

  <figure class="prism:photo">
    
    <p class="prism:mediaTitle">DOUBLE THREAD</p>
    <p class="prism:credit">ROBERT BECK</p>
    <figcaption>Tulowitzki and Gonzalez have a thriving partnership in
    the lineup, in the clubhouse and in the NL MVP balloting, where both finished
    in the top five last year.</figcaption>
  </figure>

  <p>Even though they might not want to trade iPods with Tulowitzki, 26,
  none of the Rockies would dream of suggesting he change his tune. He went on
  one of his familiar Tulo tears shortly after the sound track switch, almost
  single-handedly demolishing the Mets with home runs in four straight games, and
  through Sunday he was hitting .333 with seven homers, tying him with the
  Cardinals' <span class="prism:person">Albert Pujols</span> and <span
  class="prism:person">Ryan Braun</span> of the Brewers for the National League
  home run lead. Besides, although his new signature song isn't exactly a
  lyrical masterpiece, it does have one line—in fact, it's repeated so
  much it seems like the only lines that's especially appropriate for the
  Rockies: <span class="prism:lead-in">Baby, baby, baby, oh.</span></p>

  <figure class="prism:video">
    <embed width="320" height="240"
    src="http://mlb.com/video/play.jsp?content_id=2586034"/>
    <p class="prism:mediaTitle">A HUMOROUS LOOK AT THE COORS HUMIDOR</p>
  </figure>

  <p>Put the emphasis on the <span class="prism:lead-in">oh.</span>
  That's a joyful sound in Colorado these days, thanks not just to Tulo, but
  to CarGo and Ubaldo. CarGo is otherwise known as leftfielder Carlos Gonzalez,
  25, last year's NL batting champ. The linchpin of the Rockies' staff
  is Ubaldo Jimenez, 27, who finished third in the NL Cy Young Award voting in
  2010. Due mostly to a thumb injury that forced him to miss two starts, Jimenez
  has started slowly, but the Rockies haven't. Tulowitzki's
  performance, both with bat and glove, and solid pitching from starters Jhoulys
  Chacin and Jorge De La Rosa, as well as the entire bullpen, helped put Colorado

```

atop the NL West with a 147 record through Sunday. The Rockies appear set to contend not just this year but for the foreseeable future, and it's largely, as the Biebs might say, because of their O's, baby.

It's also because of a long-term philosophy that ensures the O trio won't be leaving anytime soon. Back in the '90s, when the Rockies were playing something closer to pinball than baseball because of the way the ball carried in the mile-high altitude of their home park, finding one of baseball's most sensible organizational blueprints in Colorado would have seemed as likely as discovering a gourmet meal in an Easy-Bake Oven. But just as the introduction of a humidifier at Coors in 2002 "baseballs stored in it don't carry like golf balls" has normalized the game in Denver, the Rockies have devised a smart, down-to-earth approach.

```
<figure class="prism:slideshow>
  <p class="prism:mediaTitle">SLIDESHOW: SEE THE VISITING PITCHERS WHO
PERFORM BEST AT COORS FIELD</p>
  <figure class="prism:photo">
    
    <p class="prism:mediaTitle">TIM LINCECUM</p>
    <p class="prism:credit">ROBERT BECK</p>
    <figcaption>TIM LINCECUM In nine career starts at Coors Field, the
Freak has a 3.49 ERA, the best among all hurlers who have thrown at least 40
innings there and never played for the Rockies.</figcaption>
  </figure>
  <figure class="prism:photo">
    
    <p class="prism:mediaTitle">TOM GLAVINE</p>
    <p class="prism:credit">ROBERT BECK</p>
    <figcaption>The Braves lefty made 13 starts at Coors (including eight
in the prehumidifier days) and had a 3.68 ERA there, second best among
visitors.</figcaption>
  </figure>
  <figure class="photo">
    
    <p class="prism:mediaTitle">DAN HAREN</p>
    <p class="prism:credit">GARRETT W. ELLWOOD/GETTY IMAGES</p>
    <figcaption>The righthander (now with the Angels) has made seven
starts at Coors and gone 4 - 2 with a 3.80 ERA there, third best among visiting
pitchers.</figcaption>
  </figure>
  <figure class="prism:photo">
    
    <p class="prism:mediaTitle">BRETT MYERS</p>
    <p class="prism:credit">DUSTIN BRADFORD/ICON SMI</p>
    <figcaption>The righty (now with the Astros) has a career ERA of 4.18
- but that figure drops to 3.92 (with a 5 - 0 record) in his six starts at
Coors.</figcaption>
  </figure>
  <figure class="prism:photo">
    
    <p class="prism:mediaTitle">BRAD PENNY</p>
    <p class="prism:credit">ROBERT BECK</p>
    <figcaption>In 11 starts at Coors, the righty (now with the Tigers)
is 6 - 1 with a 3.92 ERA, tying him with Myers for the fourth-best mark there
among visitors.</figcaption>
  </figure>
</figure>
```

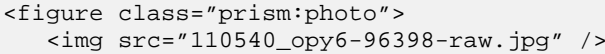
Having been burned in the past by throwing big bucks at older free agents who failed miserably on the field and sometimes embarrassed the franchise away from it, Colorado's front office has become more selective about making major financial commitments. They focus on retaining players who appear to be entering their prime rather than signing older, more established

stars, and before the Rockies offer a long-term deal, they have to be satisfied not just with a player's skills but also with the content of his character. "We found that talent that isn't also accompanied by other qualities, such as humility, accountability and integrity, really didn't work for us," says general manager Dan O'Dowd. "We've tried to build this team not just with a certain kind of player but a certain quality of person."

Gonzalez, Jimenez and Tulowitzki are perfect templates for the Rockies' visionary young, gifted, industrious and squeaky-clean. That's why Colorado locked up CarGo with a seven-year, \$80 million contract extension in January, two months after it extended Tulowitzki's contract to make it a 10-year deal worth \$157.75 million. They got in on the ground floor with Jimenez as well, signing him to a four-year deal in 2009 (with team options for '13 and '14) that could earn him \$22.75 million and keep him in Denver two years after he would have been eligible for free agency.

CarGo and Tulo in particular have formed a thriving partnership, not just in the middle of the order, where they bat third and fourth, but in the clubhouse. "We talk all the time about how to set the right tone," Gonzalez says. "We do our running in the outfield, and we're talking about how we can help our teammates. Is somebody in a slump? What can we do for him? What can we do today to make this team better?"

The pair complement each other so well that when Gonzalez bought a new Ferrari after his contract extension, he chose red instead of his preferred black because Tulowitzki already owns a black one. "Got to keep things balanced out," CarGo says. They work together as team leaders just as well. "Obviously the Latin guys on this team and in the minors look up to Carlos," Tulowitzki says. "Some of the other young guys come up to me and ask me questions, so that part of it works out real well."



PRECIOUS CARGO

ROBERT BECK

After being traded twice in 11 months as a minor leaguer, Gonzalez showed last year why he was so sought after: He finished in the top four in the NL in every Triple Crown category.

**The Rockies** have had several incarnations and strategies in their 19-year history. In their infancy they stocked the team with veteran sluggers like Dante Bichette, Vinny Castilla and Larry Walker, and ran up huge run totals in the thin Denver air. In the late 1990s and 2000s they began spending heavily on free-agent pitchers who had been successful elsewhere, such as Darryl Kile, Mike Hampton and Denny Neagle, all of whom found that pitching at high altitude is hazardous to the ERA. It was the disastrous results of spending \$172 million on Hampton and Neagle in 2000 that prompted the current shift in philosophy. Hampton was ineffective until the Rockies traded him two years later. Neagle was not only a bust but also was cited for patronizing a prostitute in 2004, causing the Rockies to void the last year of his contract. (The Rockies reached a \$16 million settlement with him in '05, and eight months later he pleaded guilty and was sentenced to 40 hours of community service.)

The greater emphasis on personal character post-Neagle was at first seen as a religious-based movement - a 2006 *USA Today* article described the organization as following a "Christian-based code of conduct" - but O'Dowd says that decisions about players have never been based on the nature of their faith. "Do we like players with character? Yes. With strong moral values? Yes," he says. "It is not required that a player be deeply religious to have those qualities."

The approach is less about religion than about an intelligent design. The effort to pay a little more to lock up promising players before they can

break the bank in free agency makes good financial sense, and the ability to retain budding stars is especially appreciated by Colorado fans, who have seen some of the market's most prominent athletes, like Carmelo Anthony of the Nuggets, the Broncos' Jay Cutler and the Rockies' Matt Holliday, leave town in the last three years.

Tulowitzki is already filling some of the void left by those departures, and Gonzalez isn't far behind. With his smooth lefthanded swing and the way he glides effortlessly in the outfield, the gifted CarGo - his slow start (a .228 average and one home run through Sunday) notwithstanding - is one of those players who make even their peers marvel. "One of the best things about my job is I get to watch him for free," says Tulowitzki.

Gonzalez developed his graceful style on the diamonds of Maracaibo, Venezuela, where his older brother Euro Jr. introduced him to the sport by taking him to a Venezuelan Winter League game when Carlos was eight. "I saw Bobby Abreu play, and I went home and started trying to make my stance like his," Gonzalez says, referring to the veteran outfielder now with the Angels. "After that all I wanted to do was play baseball." He and Euro would take tree branches, carve them into makeshift bats and use rolled-up socks for balls until Carlos's talent earned him a spot on youth traveling teams.

Signed at 16 by the Diamondbacks, he spent four years in the minors as a highly valued prospect until he was dealt in 2007 to Oakland with a package of players for pitcher Dan Haren. Despite showing flashes of his prodigious talent in Oakland, Gonzalez lasted only 11 months there before the A's traded him to Colorado with pitchers Huston Street and Greg Smith for Holliday.

"It feels like it took a long time," Gonzalez says, "and then it came all at once." The Rockies sent him to Triple A Colorado Springs when they first acquired him, and after they brought him up, he scuffled along, batting around .200 for a long stretch. But once he got settled in Colorado, stardom did come in a rush. He hit .284 in 89 games in 2009 before tearing through the league last year with a .336 average, 34 homers, 117 RBIs and 26 stolen bases. The key to his breakout? "Being comfortable," he says. "Getting traded twice was hard; it kind of shakes you up. Once I knew I was going to be here for good, that they really wanted me here, everything fell into place."

The one quality that Gonzalez hasn't yet developed is patience at the plate, where he shows off that sweet swing a little too often. "When he got here, his strike zone was from the bill of his cap to the top of his spikes," says manager Jim Tracy. "He still needs to be more selective, but he's getting better." According to Fangraphs.com, 37% of Gonzalez's swings last season were at pitches outside the strike zone. Only 14 hitters chased bad balls more often. So far this season he has reduced that number to 30.9%.

"I am trying to be patient and make the pitchers throw strikes, but at the same time I don't want to lose my aggressiveness," Gonzalez says. "It takes time. You have to learn from your mistakes, and in time you figure it out." That's as true for a franchise as it is for a ballplayer. In fact, the Rockies' trio of O's are the perfect symbols of their franchise - young, learning, on the cusp of something special. You get the feeling it won't be long now. They're just about to figure it out.

<div>

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    <p>&quot;WE TALK ALL THE TIME ABOUT HOW TO SET THE RIGHT TONE,&quot;
CARGO SAYS OF TULO. &quot;WHAT CAN WE DO TODAY TO MAKE THIS TEAM
BETTER?&quot;</p>
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    <p><span class="prism:lead-in">In their first nine seasons, the
Rockies&apos; home ERA was a lofty 6.07. But since &apos;02, when they began
using a humidior at Coors Field to make balls behave more like they do at sea
level, <span class="prism:person">Ubaldo Jimenez</span> and the team&apos;s
other pitchers have had that mark in free fall.</span>
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