PBMD
Metadata Dictionary

for Test Implementation Tasks

WELCOME TO THE PBMD Metadata Dictionary

The Need for Public Broadcasting Metadata

As public broadcasting endeavors to maintain value and values in a dramatically altered media environment, we know we must do three things: develop and deliver content across multiple platforms, strengthen our editorial and service partnerships, and engage in more efficient methods of conducting our new and legacy activities.

The recent convergence of IT capabilities with those of radio and television broadcasting has caused us and our constituents to appreciate that our prized editorial output (video clips, audio interviews, transcripts, etc.) can be understood as a series of digital assets, that can be identified, exchanged and distributed using an advanced digital infrastructure. Our ability to network – to exchange rich media content – within and across our newsrooms, production suites, satellite and terrestrial distribution systems, etc., and even with our educational and community partners (schools, libraries, museums) has never been greater. We have been afforded a tremendous opportunity for cultural relevance and operational efficiency.

In a public broadcasting system made up of hundreds of independent licensees, the challenges of organizing universal processes for asset appraisal, digitization, rights clearance, preservation, etc. are myriad, perhaps overwhelming. We did understand, however, that the foundation of any future effort in this direction would be a single, shared protocol for identifying and describing our rich media assets.

The **PBMD: Public Broadcasting Metadata Dictionary Project** is a cross-organizational, multi-disciplined effort to establish a standard for all public broadcasting content (radio and television), in order that metadata might be more easily exchanged between colleagues, software systems, institutions, community partners, individual citizens, etc. The Project will be a “touchstone,” a single, streamlined standard to which other database structures, including those of PBS, NPR, major producing stations, and other asset/content management systems will be “mapped.” It can also be used as a guide for the onset of an archival or asset management process at an individual station or institution.

The PBMD is in Draft Form

The PBMD Metadata Elements are currently in a preliminary version. They should be considered in transition, well-formed but incomplete, and will be frequently updated and corrected.

This document, describing the PBMD Metadata Elements, is made available so that potential users and other interested parties can get a preliminary look at the PBMD in order to make comments and recommendations.

Test implementations of the PBMD are underway in order to determine how understandable and useful the metadata elements are in selected applications and implementations. The results will be published through the home website for the **Public Broadcasting Metadata Dictionary Project (http://www.utah.edu/cpbmetadata)**.

The PBMD Metadata Elements

The PBMD Metadata Descriptors are called "Elements." Currently we have 58 Elements, many of which are "Refined Elements" or "Elements with Qualifiers." Qualified Elements are recognized by a ".extension" (for example, "Title.Alternative").

We have gathered the PBMD Elements into three clusters; each cluster houses elements of a similar nature...

1. **CONTENT...**
   20 elements describing the actual intellectual content or subject matter of a media asset or resource.
2. **INTELLECTUAL PROPERTY...**
   9 elements related to the creation, creators and usage of a media asset or resource.
3. **INSTANTIATION...**
   29 elements that identify the instantiation, format and technical specifications of a media asset as it exists either in physical form or in a digital derivative.

To review definitions, use guidelines, and examples about each PBMD Metadata Descriptor, click on its name from the list of descriptors to the left of this page.

The 58 PBMD Descriptors

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about each PBMD Metadata Descriptor,
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left of this page.

Descriptions about a media asset's CONTENT (20)...	***Descriptions related to INTELLECTUAL PROPERTY (9)...***	***Descriptions identifying a media asset's INSTANTIATION (29)...***
01.00 **Title**	02.00 **Creator**	07.01 **Date.Created**
01.01 **Title.Alternative**	02.01 **Creator.Role**	07.02 **Date.Issued**
01.02 **Title.Series**	05.00 **Publisher**	07.03 **Date.AvailableStart**
01.03 **Title.Program**	05.01 **Publisher. Role**	07.04 **Date.AvailableEnd**
01.04 **Title.Episode**	06.00 **Contributor**	09.01 **Format.Physical**
03.00 **Subject**	06.01 **Contributor. Role**	09.02 **Format.Digital**
04.00 **Description**	15.01 **Rights.Usage**	09.03 **Format.Identifier**
04.01 **Description.Abstract**	15.02 **Rights. Reproduction**	09.04 **Format.FileSize**
04.02 **Description. TableOfContents**	15.03 **Rights. Access**	09.05 **Format.AudioBitDepth**
04.03 **Description. ProgramRelatedText**		09.06 **Format. AudioChannelConfiguration**
08.00 **Type**		09.07 **Format.AudioDataRate**
08.01 **Type.Form**		09.08 **Format.AudioSamplingRate**
08.02 **Type.Genre**		09.09 **Format.ImageAspectRatio**
11.00 **Source**		09.10 **Format.ImageBitDepth**
13.01 **Relation.Type**		09.11 **Format. ImageChannelConfiguration**
13.02 **Relation.Identifier**		09.12 **Format.ImageColorCode**
14.01 **Coverage.Spatial**		09.13 **Format.ImageDataRate**
14.02 **Coverage.Temporal**		09.14 **Format.ImageFrameRate**
16.01 **Audience.Level**		09.15 **Format.ImageFrameSize**
16.02 **Audience.Rating**		09.16 **Format.TimeStart**
		09.17 **Format.Duration**
		09.18 **Format.Standard**
		09.19 **Format.Type**
		09.20 **Format.Encoding**
		10.00 **Identifier**

		12.00 **Language** 12.01 **Language.Usage** 18.00 **Annotation** 19.00 **Location**
Descriptions beyond the PBMD Metadata...		
99.00 **Special Extensions**		

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QuickStart Guide to Understand the PBMD Metadata

What is Metadata, Anyway?

“Metadata” is descriptive information about a resource. The resource may be video or audio, an image or graphic, a text-based document, or any other informational item whether electronic or not.

The primary purpose of metadata is sharing...the ability to describe a resource and allow someone to discover, review, select, and retrieve an item.

Examples of metadata include the name of an item; descriptions or abstracts about its content; keywords or subject classifications; file formats; authors; producers; distributors; publishers; copyright and usage restrictions; etc.

Metadata needs to be structured in some way. The descriptions available through metadata cannot be created in a random or ad hoc manner. In other words, metadata should follow a well-

documented, formalized scheme.

By the way, the "descriptions" are called "metadata." However, the "thing" being described is often referred to as the "essence." Essence + Metadata yields a media asset that has value to various end-user communities.

For additional background information on why we should be using the same metadata standards, link to these references:

1. Mary Jane McKinven's article "**The Case for Shared Metadata Standards**" in the May 13, 2002, issue of "Current."
2. The project background paper and "**PBMD Project Progress Report**" submitted to the 2003 Dublin Core Conference by the Public Broadcasting Metadata Working Group

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What is a Metadata Dictionary?

It's all about definitions. When creating a systematic method for describing media resources, you have to start by creating metadata categories. Whether created from scratch or harvested from other sources, metadata categories must be defined...thus a metadata dictionary.

In defining a dictionary,...

- The metadata categories are called ELEMENTS (see **What is a Metadata Element?**).
- An ELEMENT may stand alone, or be further refined by creating a QUALIFIED ELEMENT (see **What is a Qualified or Refined Element?**)
- Each ELEMENT has a carefully defined set of qualities or ATTRIBUTES (see **What are Element Attributes?**)
- And finally, the defined elements are combined into an APPLICATION PROFILE that is specific to the needs of a particular community or type of user (see **What is an Application Profile?**)

What is a Metadata Element?

The Periodic Table of Elements contains a carefully structured visualization of the **chemical** building blocks of the universe as we know it. Metadata Elements are the **descriptive** building blocks used to verbally or visually describe the world of resources, assets, media, or "essence."

End of metaphor (our apologies to chemists everywhere). The Public Broadcasting Core consists of dozens of Metadata Elements. Currently we have 58 Elements which can be accessed from the table on the left side of this web page.

What is a Qualified or Refined Element?

We're talking about drilling down to the descriptive core of a media essence or resource. If the descriptors attached to a specific element aren't specific or expressive enough to fully identify an item, then that element may be further refined or qualified.

The reason to use qualified elements is to achieve a detailed level of description that best suits a community of users (such as Public Broadcasting) without going overboard. After all, at some point in the process, a real, live person must describe an asset using the elements provided. An overly simplistic set of elements fails to capture the nature of that resource. An overly compulsive set of elements may capture every aspect of a resource, but be too difficult to use, too time consuming to implement, and too confusing to understand by most humans. One needs a set of elements and qualified elements that is "just right." Currently the PBMD has 58 Elements, many of which are "Refined Elements" or "Elements with Qualifiers." Qualified Elements are recognized by a ". extension" (for example, "Title.Alternative").

In addition to refining an element by creating "Qualified" Elements, refinement can be achieved by using a restricted set of descriptors (see **What is a Controlled Vocabulary?**).

Refinement is also achieved if the grammar of a descriptor is controlled. A good example of this type of refinement is the order in which a person's name is displayed, e.g., LastName, FirstName MiddleName, Credentials (for a very interesting discussion on the complexities of displaying names, see "**Representing People's Names in Dublin Core**").

Another example is the manner in which dates are represented, whether you order the data by Month/Day/Year, Day/Month/Year or Year/Month/Day (for a discussion of the representation variables in displaying dates and times, see the W3C report on "**Date and Time Formats**").

What is a Controlled Vocabulary?

By controlling the vocabulary or the descriptors associated with a metadata element, we can improve the discovery of media resources and their retrieval. For some elements, like TITLE, there are few restrictions on the words and terms that are used. For many other elements, the possible descriptors may be limited or controlled in order to insure consistency. Basically, a controlled vocabulary consists of a carefully predefined set of values that are permissable. Without the use of controlled vocabularies, users may enter their search criteria only to find a limited number of "hits" or, in other situations, an explosive number of irrelevant results.

Some controlled vocabularies are very short and simple lists of allowable Terms. In other situations, the number of authorized terms may be large and more complex. These vocabularies are referred to as Authority Files and are carefully crafted compilations of the appropriate manner and form in which to describe something. If the relationships of meaning that exist between terms need to be expressed, then a Thesaurus may be employed. A Thesaurus shows all allowable terms and the relationships between them.

The PBMD uses Controlled Vocabularies wherever precision is needed and ambiguity is to be avoided.

What are Element Attributes?

Once again the topic focuses on specificity and standardization. There are many specifications on how to define data elements. If one hopes to share metadata descriptions with other organizations and entities (interoperability), then it's best to follow an established set of guidelines in setting up and defining metadata elements. A commonly understood framework allows diverse groups to appreciate, even harvest, data from each other.

The PBMD has used a modified standard for describing data elements used in databases and documents. It is called **ISO 11179: Specification and Standardization of Data Elements**. In using this standard, each metadata element is identified by numerous attributes. By defining each attribute in the set of attributes for a metadata element, that element receives a carefully honed statement of meaning.

To review definitions, use guidelines, and examples about each PBMD Metadata Descriptor, click on its name from the list of descriptors to the left of this page. Below are listed all the attributes we've used in the PBMD Metadata Elements.

Attributes of core interest...	
Name	The actual name of the element, including qualified elements.
Definition	A brief definition of the element. Guidelines for entering values and actually applying an element are described under the attribute Guidelines for Usage.

Refinements and Encoding Schemes	If a particular controlled vocabulary is to be used with an element, then a URL reference is included, as well as a pull-down list of the allowable values if the Term List is short and manageable. Otherwise a reference or link to an authority file and its originating organization is provided. If a particular syntax, punctuation or grammar is used to guide the form in which descriptions are entered, then either the rules are presented or a URL link to the rules is provided.
Guidelines for Usage	Statements about the appropriate way in which to apply a metadata element. The Guidelines are a brief appoximation of a user's guide to understanding and applying a particular metadata element.
Obligation to Use	A metadata element does not have to be employed when describing a media resource. Typically this attribute indicates if the use of an element is MANDATORY, OPTIONAL, or RECOMMENDED. This attribute may also be referred to as Obligation or Status.
Repeatable Element	Some metadata schemes, such as the Dublin Core, suggest if you need to apply more than one value to a single element, you can repeat the presence of an element and its associated value. This attribute may use such terms as REPEATABLE, UNBOUNDED, or actually use a number.
Type of Data Entry	Any database designer must indicate what type of data is permissible for a field as a value is typed or entered. Typically, this attribute indicates if the value is a TEXT STRING, NUMBER, or DATE.
Examples	Definitions of an element are often enhanced by using real world examples. The PBMD provides these examples as an aid to understanding.

Other Attributes of side interest....

Element Label	Usually the attribute Name and the attribute Label are the same. The Label is used indicate the exact manner in which an element is referenced.
Element Version	While developing metadata, several versions of elements or the meaning attached to them will emerge over time. Like software editions that are released, Element Version indicates the version you are viewing (hopefully, the most recent version).

Namespace Identifier	**http://library.csun.edu/mwoodley/dublincoreglossary.html** A unique name that identifies an organization that has developed an XML schema. A namespace is identified via a Uniform Resource Identifier (a URL or URN). For example, the namespace for Dublin Core elements and qualifiers would be expressed respectively in XML as: xmlns:dc = "http://dublincore.org/elements/1.0/" xmlns:dcq = "http://dublincore.org/qualifiers/1.0/" > The use of namespaces allows the definition of an element to be unambiguously identified with a URI, even though the label "title" alone might occur in many metadata sets. In more general terms, one can think of any closed set of names as a namespace. Thus, a controlled vocabulary such as the Library of Congress Subject Headings, a set of metadata elements such as DC, or the set of all URLs in a given domain can be thought of as a namespace that is managed by the authority that is in charge of that particular set of terms.
Registration Authority	**http://library.csun.edu/mwoodley/dublincoreglossary.html** A system to provide management of metadata elements. Metadata registries are formal systems that provide authoritative information about the semantics and structure of data elements. Each element will include the definition of the element, the qualifiers associated with it, mappings to multilingual versions and elements in other schema. A registration authority facilitates the consistent use of a metadata element by all parties and communities. It also contributes to the longevity of a metadata element as it maintains its integrity over time.
Language of the Element	Depending on the Registration Authority for a metadata element or its country of origination and usage, the language used for the element is indicated. For the PBMD, the Language is expected to be English and uses the designation "eng". Standards exist to express languages in either two-letter or three-letter codes. ISO-639-2: Codes for the representation of names of languages as a 3-letter code. **http://www.loc.gov/standards/iso639-2**

What is an Application Profile?

http://library.csun.edu/mwoodley/dublincoreglossary.html

> An Application Profile is a set of metadata elements, policies, and guidelines defined for a particular application. The elements may be from one or more element sets, thus allowing a given application to meet its functional requirements by using metadata from several element sets including locally defined sets. For example, a given application might choose a subset of the Dublin Core that meets its needs, or may include elements from the Dublin Core, another element set, and several locally defined elements, all combined in a single schema. An Application Profile is not complete without documentation that defines the policies and best practices appropriate to the application.

For the Public Broadcasting Core of Metadata, we have drawn metadata elements, policies and guidelines from the **Dublin Core Metadata Dictionary Project**, from the **Video Development Project (ViDE)**, from many digital asset management projects underway at various public broadcasting stations, producers and developers, and other entities. Thus we are building an Application Profile for the PBMD.

With the presentation of version 1.0 of the PBMD, are we finished? Probably not. As the PBMD is used by various communities, we will undoubtedly add extensions to the existing set of metadata elements to accommodate specials needs (see **PBMD Extensions**).

For example, extensions that we know are important to Public Broadcasting are those related to the use of their media resources in educational venues. The Dublin Core has a draft proposal for metadata elements being assembled by its **Education Working Group**. The element Audience has already been folded into the PBMD. Other educationally oriented elements include Standard (academic/curriculum), Mediator, InteractivityType, InteractivityLevel, and TypicalLearningTime. These elements are under consideration and may be folded in the PBMD or treated as special extensions for use by certain Public Broadcasting communities.

What is the Dublin Core (DCMI)?

http://www.dublincore.org

The Dublin Core Metadata Dictionary Project is an open forum engaged in the development of interoperable online metadata standards that support a broad range of purposes and business models. DCMI's activities include consensus-driven working groups, global workshops, conferences, standards liaison, and educational efforts to promote widespread acceptance of metadata standards and practices.

The Dublin Core is a 15-element metadata element set intended to facilitate discovery of electronic resources. The Dublin Core has been in development since 1995 through a series of focused invitational workshops that gather experts from the library world, the networking and digital library research communities, and a variety of content specialties. See Section 1 of this guide or the Dublin Core Web Site.

The Dublin Core Metadata Dictionary Project is the body responsible for the ongoing maintenance of Dublin Core. DCMI is currently hosted by the **OCLC Online Computer Library Center, Inc.**, a not-for-profit international library consortium. The work of DCMI is done by contributors from many institutions in many countries. DCMI is a consensus-driven organization organized into working groups to address particular problems and tasks. DCMI working groups are open to all interested parties. Instructions for joining can be found at the DCMI web site under Working Groups.

What is the Public Broadcasting Core (PBMD Project)?

On its surface, “metadata” appears to be an arcane topic reserved for librarians or systems engineers. In fact, in a rapidly evolving and deeply challenging media environment, a well-formed Metadata Dictionary directly addresses our core mission of serving the people of the United States, and may, to a great extent, determine our future relevance. By working hard to sensibly describe our content, and to facilitate easy access and use by teachers, scholars, lifelong learners, engaged citizens and community partners, we will reaffirm our national and local value as providers of media of the highest editorial integrity, offered for the public good.

It is our fervent hope that the Metadata Dictionary Project (or Public Broadcasting Metadata Dictionary Project, PBMD Project) also models a process of cross-disciplinary consensus within our "industry" around critical standards – a template that will serve us in good stead as we meet the many data challenges of the future.

Within public broadcasting, the application of a shared metadata dictionary will facilitate the exchange and delivery of content and data (including both program elements and completed programs) throughout our multiplatform production teams, our system of interconnected licensees and out to our broadcast and Internet constituents. It is a critical first step as PBS, NPR, PRI,

individual stations, and others begin to acquire and use asset management systems to organize their content.

The project has been extant since January of 2002, and during its first two phases of CPB Future Fund support, a team of individuals representing public broadcasting's key institutions and endeavors, along with subject matter experts has worked to:

- Develop consensus regarding project objectives and timeline;
- Recognize and codify the way our constituents use our content and content information. (Developed use cases based on interviews with producers, broadcast operation staff, educators, website creators, etc.);
- Examine relevant metadata standards in the media and library communities, to ascertain their applicability to our content and constituencies;
- Make information about the PBMD Project available via numerous conference presentations and a project website;
- Contribute and combine the substantial metadata work already performed at key institutions in public broadcasting (PBS, NPR, WGBH, KUED, MPR);
- Form a preliminary consensus regarding a single set of metadata protocols - the Public Broadcasting Core (PB Core) Metadata, Preliminary Version 1.0.

For more information on the Project, please see the project background paper and "**PBMD Project Progress Report**" submitted to the 2003 Dublin Core Conference by the Public Broadcasting Metadata Working Group.

How do I Review the Metadata Elements of the PBMD?

The PBMD Metadata Descriptors are called "Elements." Currently we have 58 Elements, many of which are "Refined Elements" or "Elements with Qualifiers." Qualified Elements are recognized by a ".extension" (for example, "Title.Alternative").

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More Resources for the Curious and Compulsive

For additional background on Digital Asset Management and Metadata, please refer to our two websites that provide numerous links to presentations, papers and additional resources.

CPB Asset Management
http://www.utah.edu/cpbasset

Public Broadcasting Metadata Dictionary Project
http://www.utah.edu/cpbmetadata

PBMD
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01.00 Title

Describe this Element

Name	Title
Definition	The element TITLE contains a name given to a media item or resource, often referred to as a formal or proper title. A media item may be a complete work or may consist of a segment excerpted from a complete work. The Title should identify an item in a clear and meaningful way in order to facilitate searching in catalogs and databases, leading to a successful discovery and retrieval by a variety of stakeholders, agencies, communities, and users. **[see the DCMI Definition]**
Refinements and Encoding Schemes	Use natural language to enter data.
Guidelines for Usage	PBMD recommends that Titles be expressed in "Natural Language" or "Human Readable/Understandable Form." Given today's sophisticated search engines and search techniques, there is less concern about expressing Titles in strict, non-intuitive syntaxes prescribed by rule-based authorities. Titles typically are not searched as part of complex semantic interpretations, but instead employ simple matches to keywords and text strings. Consequently, PBMD encourages producers, stations, and catalogers to assign accurate, consistent Titles to items, using more of a natural language grammar. It is acceptable to: • Use leading articles (A, An, The) • Use upper and lower case • Use punctuation Titles are typically "proper" or "given" titles supplied by the resource's creator. However, in situations where no proper

	title is available, e.g., photographs or segments harvested from a longer work or program, a "supplied title" may be generated. A "supplied title" must be distinctive, authoritative, descriptive and assist searching databases and catalogs, leading to successful discovery and retrieval of items.
Obligation to Use	Recommended
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

Geography of Utah
National Parks in the State of Utah
Delicate Arch Olympic Flame Ceremony
American Experience
Frontline

PBMD
Metadata Dictionary

for Test Implementation Tasks

01.01 Title.Alternative

Describe this Element

Name	Title.Alternative
Definition	An Alternative Title is any form of a title used as a substitute or alternative to the formal title of a media item as expressed by the element TITLE. Examples include a title in a different language, or shortform titles commonly used instead of a longer, more formal title. **[see the DCMI Definition]**
Refinements and Encoding Schemes	Use natural language to enter data.
Guidelines for Usage	An Alternative Title is an alias that complements a proper or official title. Examples include: • Where the original item is in a foreign langauge and a translated version is easier to search • To spell out numbers appearing in the first five words of a title • To express a shorter title where the original, proper title includes an author or creator's name • For commonly used titles which differ from the official, proper title PBMD recommends that Titles be expressed in "Natural Language" or "Human Readable/Understandable Form." Given today's sophisticated search engines and search techniques, there is less concern about expressing Titles in strict, non-intuitive syntaxes prescribed by rule-based authorities. Titles typically are not searched as part of complex semantic interpretations, but instead employ simple matches to keywords and text strings. Consequently, PBMD encourages producers, stations, and catalogers to assign accurate, consistent Titles to items, using more of a natural language grammar. It is acceptable

to:

- Use leading articles (A, An, The)
- Use upper and lower case
- Use punctuation

Titles are typically "proper" or "given" titles supplied by the resource's creator. However, in situations where no proper title is available, e.g., photographs or segments harvested from a longer work or program, a "supplied title" may be generated. A "supplied title" must be distinctive, authoritative, descriptive and assist searching databases and catalogs, leading to successful discovery and retrieval of items.

Obligation to Use	Optional
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

Utah Geography
[where the proper TITLE is actually "The Geography of Utah")

The Geography of Utah. Program 16
[where the proper TITLE is actually "National Parks in the State of Utah"]

Twelve Monkeys
[where the proper TITLE is actually "12 Monkeys"]

The Boat
[where the original, proper German film TITLE is "Das Boot"]

Farnsworth
[where the original TITLE is "Amercian Experience. Big Dream, Small Screen"]

Dark Sun
[where the original TITLE is "American Experience. Race for the Superbomb"]

Ascent of Man
[where the original TITLE is "Jacob Bronowski's Ascent of Man"]

PBMD
Metadata Dictionary

for Test Implementation Tasks

01.02 Title.Series

Describe this Element

Name	Title.Series
Definition	The name used in TITLE.SERIES refers to a group of separate works (each with their own proper titles) that are related to one another. Together, the works bear a series title that applies to the group as a whole. The individual works may or may not be numbered.
Refinements and Encoding Schemes	Use natural language to enter data.
Guidelines for Usage	PBMD recommends that Titles be expressed in "Natural Language" or "Human Readable/Understandable Form." Given today's sophisticated search engines and search techniques, there is less concern about expressing Titles in strict, non-intuitive syntaxes prescribed by rule-based authorities. Titles typically are not searched as part of complex semantic interpretations, but instead employ simple matches to keywords and text strings. Consequently, PBMD encourages producers, stations, and catalogers to assign accurate, consistent Titles to items, using more of a natural language grammar. It is acceptable to: • Use leading articles (A, An, The) • Use upper and lower case • Use punctuation Titles are typically "proper" or "given" titles supplied by the resource's creator. However, in situations where no proper title is available, e.g., photographs or segments harvested from a longer work or program, a "supplied title" may be generated. A "supplied title" must be distinctive,

	authoritative, descriptive and assist searching databases and catalogs, leading to successful discovery and retrieval of items.
Obligation to Use	Optional
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

Geography of Utah
Nova
Prairie Home Companion
Car Talk
Barney

PBMD
Metadata Dictionary

for Test Implementation Tasks

01.03 Title.Program

Describe this Element

Name	Title.Program
Definition	A Program Title is assigned to an individual program which may or may not be part of a series. TITLE.PROGRAM is intended to accurately reflect how an item's title fits into a hierarchy of proper titles that are used to describe it (e.g., Title.Series; Title.Program; Title.Episode; Title.Segment; Title.Excerpt; Title.Working).
Refinements and Encoding Schemes	Use natural language to enter data.
Guidelines for Usage	PBMD recommends that Titles be expressed in "Natural Language" or "Human Readable/Understandable Form." Given today's sophisticated search engines and search techniques, there is less concern about expressing Titles in strict, non-intuitive syntaxes prescribed by rule-based authorities. Titles typically are not searched as part of complex semantic interpretations, but instead employ simple matches to keywords and text strings. Consequently, PBMD encourages producers, stations, and catalogers to assign accurate, consistent Titles to items, using more of a natural language grammar. It is acceptable to: • Use leading articles (A, An, The) • Use upper and lower case • Use punctuation Titles are typically "proper" or "given" titles supplied by the resource's creator. However, in situations where no proper title is available, e.g., photographs or segments harvested from a longer work or program, a "supplied title" may be

generated. A "supplied title" must be distinctive, authoritative, descriptive and assist searching databases and catalogs, leading to successful discovery and retrieval of items.

Obligation to Use	Optional
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

Peter, Paul and Mommy Too
Francis Ouimet: The First American Golf Hero
Godspell goes to Plimoth Plantation
Monet : Legacy of Light

PBMD
Metadata Dictionary

for Test Implementation Tasks

01.04 Title.Episode

Describe this Element

Name	Title.Episode
Definition	An Episode Title is assigned to an individual portion of a series or program. An Episode Title is one specifically identified by the media production agency or group and exists in order to facilitate discovery and retrieval. TITLE. EPISODE is intended to accurately reflect how an item's title fits into a hierarchy of proper titles that are used to describe it (e.g., Title.Series; Title.Program; Title.Episode; Title. Segment; Title.Excerpt;Title.Working).
Refinements and Encoding Schemes	Use natural language to enter data.
Guidelines for Usage	PBMD recommends that Titles be expressed in "Natural Language" or "Human Readable/Understandable Form." Given today's sophisticated search engines and search techniques, there is less concern about expressing Titles in strict, non-intuitive syntaxes prescribed by rule-based authorities. Titles typically are not searched as part of complex semantic interpretations, but instead employ simple matches to keywords and text strings. Consequently, PBMD encourages producers, stations, and catalogers to assign accurate, consistent Titles to items, using more of a natural language grammar. It is acceptable to: • Use leading articles (A, An, The) • Use upper and lower case • Use punctuation Titles are typically "proper" or "given" titles supplied by the resource's creator. However, in situations where no proper

	title is available, e.g., photographs or segments harvested from a longer work or program, a "supplied title" may be generated. A "supplied title" must be distinctive, authoritative, descriptive and assist searching databases and catalogs, leading to successful discovery and retrieval of items.
Obligation to Use	Optional
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

I Claudius: Family Affairs
I Claudius: Waiting in the Wings
I Claudius: A Touch of Murder

PBMD
Metadata Dictionary

for Test Implementation Tasks

03.00 Subject

LATE BREAKING UPDATE

After recent discussion, the PBMD Metadata Dictionary Team recommends that a new, qualified element be added. It may be named Subject. ClassificationSchemeUsed.

PBMD does not recommend a single authority from which to select keywords, topics and terms. Dozens of authorities, schemes, and vocabularies have been developed. Some are useful for assigning general keywords. Others are highly specific to certain disciplines, fields of study, and industries.

If a particular authority is used, the specific scheme employed should be identified in your metadata.

PBMD is considering adding an element, possibly named Subject. ClassificationSchemeUsed, in which a specific subject authority that is used can be identified.

Describe this Element

Name	Subject
Definition	When describing an item or resource, the element SUBJECT is considered to be the topic for the content of the resource. Typically, a Subject is expressed by a limited number of keywords, key phrases, or classification codes. Controlled vocabularies or formal classification schemes may be employed. **[see the DCMI Definition]**
Refinements and Encoding Schemes	PBMD does not recommend a single subject authority from which to select keywords, topics, and terms.

Guidelines for Usage	Typically, the keywords or topics used in the Subject are harvested from information in either the Title or Description. Focus on what the resource is about, not on a description of the type or format of the resource. In general, choose the most significant and unique words for keywords and topics, avoiding those too general to describe a particular item. If the term used in the Subject has variations or alternative forms, include them as well, even though some sophisticated Asset Management Systems have the ability to search a thesaurus of related terms or suggest possible alternatives. If the subject of the item is a person or an organization, use the same form of the name that is used by the element Creator. Use the element Description when entering free-form text descriptions of a resource. PBMD does not recommend a single authority from which to select keywords, topics and terms. Dozens of authorities, schemes, and vocabularies have been developed. Some are useful for assigning general keywords. Others are highly specific to certain disciplines, fields of study, and industries. If you have the interest or expertise to exploit such authorities, a short sample list follows. If a particular authority is used, the specific scheme employed should be identified in your metadata. PBMD is considering adding an element, possibly named Subject.ClassificationSchemeUsed, in which a specific subject authority that is used can be identified. World Wide Web Consortium Thesauri and Controlled Vocabularies Available for the Choice of Controlled Subject Terms • **http://www.lub.lu.se/metadata/subject-help.html** Library of Congress Authorities http://authorities.loc.gov/ • **http://lcweb.loc.gov/catdir/cpso/lcco/lcco.html** • **http://authorities.loc.gov/cgi-bin/Pwebrecon.cgi?DB=local&PAGE=First** • **http://authorities.loc.gov/help/subj-auth.htm**

DDC: Dewey Decimal Classification

- **http://www.oclc.org/dewey/index.htm**

IPTC: International Press Telecommunications Council

- **http://www.iptc.org/pages/index.php**
- **http://www.iptc.org/metadata/**

GEM: Gateway to Educational Materials Subject Element Controlled Vocabulary

- **http://www.geminfo.org/**
- **http://www.geminfo.org/Workbench/Metadata/Vocab_Subject.html**

MESH: Medical Subject Headings of the National Library of Medicine

- **http://www.nlm.nih.gov/mesh/meshhome.html**

Getty Art & Architecture Thesaurus

- **http://www.getty.edu/research/conducting_research/vocabularies/aat/**

Obligation to Use	Mandatory
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

National Parks. Natural Bridges. Delicate Arch; Arches National Park; Grand County; Utah.

Afro-American artists - Boston - Massachusetts

Afro-American authors

United States - Relations - Cuba

United States - History

PBMD
Metadata Dictionary

for Test Implementation Tasks

04.00 Description

Describe this Element

Name	Description
Definition	The element DESCRIPTION contains an account of the intellectual content of the resource. Descriptions are more free-form text entries when compared to the controlled vocabularies, keywords, and terms selected from authority files associated with the subject of an item. **[see the DCMI Definition]**
Refinements and Encoding Schemes	Use natural language to enter data.
Guidelines for Usage	Use the element Description for general notes about a resource, including descriptions that are not found in the element Format or Subject. Use Description for general purposes and include important information that needs to be keyword-searchable and does not fit into any other elements of the PBMD or the three qualified elements for Description: 1. Description.Abstract 2. Description.TableOfContents 3. Description.ProgramRelatedText.
Obligation to Use	Mandatory
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

Narrated by Ken Burns.

Recorded from the live web broadcast 2000-01-28.

An animated tutorial on School, Parent & Community Involvement in Pupil Development

---

In this film, a gangster, a 7-year-old, an astronomer and other real life characters ponder, among other topics: creation, identity, sex, crime, madness, and love. (P.O.V. The Big Bang)

PBMD
Metadata Dictionary

for Test Implementation Tasks

04.01 Description.Abstract

Describe this Element

Name	Description.Abstract
Definition	As an account of the intellectual content for a resource, DESCRIPTION.ABSTRACT is a short narrative summary of the topic or topics found in the resource. It provides additional supplied text by experts that adds anecdotal comments, color or insight to the description of the resource or asset that is not otherwise identified in the more specific content-related elements. **[see the DCMI Definition]**
Refinements and Encoding Schemes	Use natural language for data entry.
Guidelines for Usage	Use the element DESCRIPTION.ABSTRACT for brief statements about a resource, including descriptions that are not found in the element FORMAT. Anecdotal comments may be added to DESCRIPTION. ABSTRACT to enrich the description of an asset. Often these informal, free text, anecdotal comments come from a content expert, contributor, or academic associated with a project. Anecdotal comments often answer the question as to "why an asset or media file is important at all or within certain contexts." Anecdotals enrich the context in which an asset may be understood and appreciated, once it is searched and viewed.
Obligation to Use	Optional
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

Program Eighteen of the Geography of Utah series is a video tour of Utah's spectacular national parks and recreation areas. Zion National Park, Bryce National Park, Capitol Reef, Canyonlands, Arches National Park, Flaming Gorge National Recreation Area, Dinosaur National Monument, and the Glen Canyon National Recreation Area are all visited. The controversy of land use and environmental preservation is considered in interviews with San Juan County Commissioner Cal Black and Benjamin Zerbey of the National Park Service. Rainbow Bridge National Monument and Canyonlands National Park are only two examples of the land use debate.

The Museum Without Walls Billboard Art Project was first conceived by Professor Roger Des Rosiers, Chairman of the Department of Art at the University of Utah in the early 1970s. The idea was to invite twenty-one Utah Artists to participate in the exhibition of their works on existing outdoor bilboards in the Salt Lake Valley. Called "Museum Without Walls" by Lukman Glasgow, Project Director, he stated that "such works of art in an outdoor setting must compete with the whole environment." Further, "It was an experiment with public art works designed to be understood by a much broader and more general art audience than is normal to the museum of gallery environment. Such a project then should be seen, hopefully, as a beginning and not simply an isolated event. Too long have the works of contemporary artists been regarded as a set of experiences for the eyes of only small or even elitist groups. Therefore, 'public art,' because it properly speaks to a majority in our society, is perhaps the most vital art movement occurring today."

PBMD
Metadata Dictionary

for Test Implementation Tasks

04.02 Description.TableOfContents

Describe this Element

Name	Description.TableOfContents
Definition	As an account of the content of the resource, DESCRIPTION. TABLEOFCONTENTS is used for partial or full listings of subunits of the resource. Use the Table of Contents element to identify other descriptive information such as: Composers and Works contained in a program; Cue Sheets; Play Lists; Rundowns; EDLs (unformatted); Content Flags; Indexes of Sections or Segments; or a Formal Table of Contents. **[see the DCMI Definition]**
Refinements and Encoding Schemes	Use natural language for data entry.
Guidelines for Usage	Use the element DESCRIPTION.TABLEOFCONTENTS to identify structured information about a resource. Some examples include: • Composers and Works contained in a program; • Cue Sheets; • Play Lists; • Rundowns; • EDLs (unformatted); • Content Flags for questionable language or scenes; • Indexes of Sections or Segments; • Formal Table of Contents
Obligation to Use	Optional
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

Aliens -- Making of Aliens -- Interview with Ridley Scott

01;23;14;10 - 01;30;15;29 Introduction
01;30;16;00 - 01;34;18;05 The Meaning of Life
01;34;18;06 - 01;40;00;00 The Meaning of Work
01;40;00;01 - 01;45;20;00 The Meaning of Play
01;45;20;01 - 01;50;16;13 Conclusions

PBMD
Metadata Dictionary

for Test Implementation Tasks

04.03 Description.ProgramRelatedText

Describe this Element

Name	Description.ProgramRelatedText
Definition	As an account of the content of a resource, the DESCRIPTION.PROGRAMRELATEDTEXT contains other audio or textual representations of the main audio for a resource or asset. Program Related Text may include: 1. Actual Transcripts 2. Speech-to-Text Transcripts 3. CC1-CC4: Closed Captions 4. Open Captions 5. Subtitles (multiple depending on the medium) 6. DVI: Descriptive Video Information presented as audio 7. SAP1 or SAP2: Other Languages presented as audio
Refinements and Encoding Schemes	Use natural language for data entry.
Guidelines for Usage	Actual types of Program Related Text are identified in the element LANGUAGE.USAGE. The element DESCRIPTION.PROGRAMRELATEDTEXT contains either the actual text (if of limited length) or indicates a separate, distinct, related file containing that text or a separate audio track. Many Digital Asset Management Systems will associate files that are cataloged separately, but related to an item. Use the element RELATION.TYPE and RELATION.IDENTIFIER to refer to the presence and identification of these other related formats and forms of the primary audio presentation for a resource. Use the element LANGUAGE to identify the language

represented in alternative audio.

The various permutations of Program Related Text may include the following:

1. A transcript may exist as a text document.
2. Speech-to-Text conversions may exist as (a) a text document or (b) an electronic file with timecode synchronization data.
3. Closed Captions may exist as (a) a text document, (b) an electronic file with timecode synchronization data, (c) as a video program or broadcast with captioning encoded on SMPTE line 21 of the video signal (NTSC standard), or (d) as data encoded within the "picture user_data" portion of the video stream in DTV (ATSC standard).
4. Open Captions may exist as (a) a text document, (b) an electronic file with timecode synchronization data, (c) as a video program or broadcast with captioning encoded on SMPTE line 21 of the video signal (NTSC standard), (d) as data encoded within the "picture user_data" portion of the video stream in DTV (ATSC standard), or (e) as a completely separate track of text or its graphical representation (DVD-Videodisc standard specification or QuickTime tracks specification).
5. Subtitles may exist as (a) a text document, (b) an electronic file with timecode synchronization data, (c) as a video program or broadcast with captioning encoded on SMPTE line 21 of the video signal (NTSC standard), (d) as data encoded within the "picture user_data" portion of the video stream in DTV (ATSC standard), or (e) as a completely separate track of text or its graphical representation (DVD-Videodisc standard specification or QuickTime tracks specification).

NOTE: Including transcript-related content in DESCRIPTION. PROGRAMRELATEDTEXT is not intended to interfere with related businesses who sell transcripts for finished programs. If such for-sale-transcripts are available, the PBMD may or may not refer to that source and will not provide the same content as a uniquely catalogued asset.

Obligation to Use	Optional
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

PBMD
Metadata Dictionary

for Test Implementation Tasks

08.00 Type

Describe this Element

Name	Type
Definition	The element TYPE describes the nature of the content of a resource. It uses categories related to the manner in which content is presented, viewed or heard by a user. The qualified elements TYPE.FORM and TYPE.GENRE further refine the descriptions. To describe the physical or digital manifestation or instantiation of a resource, use the element FORMAT. **[see the DCMI Definition]**
Refinements and Encoding Schemes	PBMD Aggregate Picklist View PBMD Type List
Guidelines for Usage	The element TYPE, in its unqualified state, uses categories related to the manner in which **content is presented, viewed or heard by a user**. There is an implied hierarchy when using the elements TYPE, TYPE.FORM and TYPE.GENRE. TYPE is the manner in which content is presented, viewed or heard by a user. TYPE.FORM is the manner in which the content is structured for presentation. TYPE.GENRE is the topical nature of the content. Examples are the best way to present the differences:

1. TYPE = Moving Image
   TYPE.FORM = Documentary
   TYPE.GENRE = Environment
2. TYPE = Interactive Resource
   TYPE.FORM = Tutorial
   TYPE.GENRE = Oceanography

Multiple terms can and should be applied to fully describe a media resource.

The recommended best practice is to select descriptors for the elements TYPE, TYPE.FORM and TYPE.GENRE from controlled vocabularies. There are many available to reference when assigning metadata to a media resource. PBMD has combined descriptors from several lists, including the Tribune Media Services, the Library of Congress, the International Press Telecommunications Council, Minnesota Public Radio, WGBH, and Media Solutions/University of Utah.

Obligation to Use	Recommended
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

Moving Image
Static Image
Text
Sound

PBMD
Metadata Dictionary

for Test Implementation Tasks

08.01 Type.Form

LATE BREAKING UPDATE

After recent discussion, the PBMD Metadata Dictionary Team recommends that the element Type.Form be deleted.

Its definition and picklist of descriptors will be folded into the element Type.Genre.

This decision is based on the difficulties in generating a unique vocabulary list of descriptive categories for each original element. The structure for the presentation of a media item (Type.Form) and the topical nature of its intellectual content (Type. Genre) often overlap.

A single Genre description proves to be easier to understand, both when entering data about a media item and when conducting searches for particular types of content.

At the present time, the web page displays a picklist of descriptors for Type.Form drawn from PBS Program Categories, Tribune Media Services, the Library of Congress, the International Press Telecommunications Council, Minnesota Public Radio, WGBH, and Media Solutions/University of Utah. You may choose to ignore this list.

For the element Type.Genre, the web page displays a new picklist of descriptors that combines terms from the original elements Type.Form plus Type.Genre. A separate listing of Sports related categories is also displayed.

Describe this Element

Name	Type.Form
Definition	The element TYPE.FORM describes the manner in which the content of a resource is **structured** for presentation, viewed or heard by a user. The companion elements, TYPE and TYPE. GENRE enhance the full description for a resource. To describe the physical or digital manifestation or instantiation of a resource, use the element FORMAT.

Refinements and Encoding Schemes

PBMD Aggregate List

View PBMD Form List

Guidelines for Usage

As a refinement of PBMD's element TYPE, TYPE.FORM is best used to aggregate resources into categories related to the **structure of the content** for the resource being decribed.

There is an implied hierarchy when using the elements TYPE, TYPE.FORM and TYPE.GENRE.

TYPE is the manner in which content is presented, viewed or heard by a user.
TYPE.FORM is the manner in which the content is structured for presentation.
TYPE.GENRE is the topical nature of the content.

Examples are the best way to present the differences:

1. TYPE = Moving Image
   TYPE.FORM = Documentary
   TYPE.GENRE = Environment
2. TYPE = Interactive Resource
   TYPE.FORM = Tutorial
   TYPE.GENRE = Oceanography

Multiple terms can and should be applied to fully describe a media resource.

The recommended best practice is to select descriptors for the elements TYPE, TYPE.FORM and TYPE.GENRE from controlled vocabularies. There are many available to reference when assigning metadata to a media resource. PBMD has combined descriptors from several lists, including the Tribune Media Services, PBS, the Library of Congress, the International Press Telecommunications Council, Minnesota Public Radio, WGBH, and Media Solutions/University of Utah.

Obligation to Use	Recommended
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

Debate
Inteview
Panel
Commentary
Documentary

PBMD
Metadata Dictionary

for Test Implementation Tasks

08.02 Type.Genre

LATE BREAKING UPDATE

After recent discussion, the PBMD Metadata Dictionary Team recommends that the element Type.Form be deleted.

Its definition and picklist of descriptors will be folded into the element Type.Genre.

This decision is based on the difficulties in generating a unique vocabulary list of descriptive categories for each original element. The structure for the presentation of a media item (Type.Form) and the topical nature of its intellectual content (Type. Genre) often overlap.

A single Genre description proves to be easier to understand, both when entering data about a media item and when conducting searches for particular types of content.

At the present time, the web page displays a picklist of descriptors for Type.Form drawn from PBS Program Categories, Tribune Media Services, the Library of Congress, the International Press Telecommunications Council, Minnesota Public Radio, WGBH, and Media Solutions/University of Utah. You may choose to ignore this list.

For the element Type.Genre, the web page displays a new picklist of descriptors that combines terms from the original elements Type.Form plus Type.Genre. A separate listing of Sports related categories is also displayed.

Describe this Element

Name	Type.Genre
Definition	The element TYPE.GENRE describes the topical nature of the content found in a media resource. The companion elements, TYPE and TYPE.FORM enhance the full description for a resource. To describe the physical or digital manifestation or instantiation of a resource, use the element FORMAT.

Refinements and Encoding Schemes

PBMD Aggregate Picklist

View PBMD Form+Genre List

View Tribune Sports Tags

Guidelines for Usage

As a refinement of PBMD's element TYPE, TYPE.GENRE is best used to aggregate resources into categories related to the **intellectual content or topical nature** for the resource being decribed.

There is an implied hierarchy when using the elements TYPE, TYPE.FORM and TYPE.GENRE.

TYPE is the manner in which content is presented, viewed or heard by a user.
TYPE.FORM is the manner in which the content is structured for presentation.
TYPE.GENRE is the topical nature of the content.

Examples are the best way to present the differences:

1. TYPE = Moving Image
   TYPE.FORM = Documentary
   TYPE.GENRE = Environment
2. TYPE = Interactive Resource
   TYPE.FORM = Tutorial
   TYPE.GENRE = Oceanography

Multiple terms can and should be applied to fully describe a media resource.

The recommended best practice is to select descriptors for the elements TYPE, TYPE.FORM and TYPE.GENRE from controlled vocabularies. There are many available to reference when assigning metadata to a media resource. PBMD has combined descriptors from several lists, including the Tribune Media Services, PBS, the Library of Congress, the International Press Telecommunications Council, Minnesota Public Radio, WGBH, and Media Solutions/

University of Utah.

Obligation to Use	Recommended
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

Adventure
Children
Collectibles
Cooking
Talk
Aerobics
Speed skating
Olympics

PBMD
Metadata Dictionary

for Test Implementation Tasks

11.00 Source

Describe this Element

Name	Source
Definition	The element SOURCE contains a reference to another resource from which the present resource is derived, either in whole or in part. **[see the DCMI Definition]**
Refinements and Encoding Schemes	Use free-form text entry.
Guidelines for Usage	The present resource may be derived from the Source resource in whole or in part. The Source is identified by an explanatory text string or by a number conforming to an established or formal identification system.
Obligation to Use	Optional
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

Derived from the program "The Number Line"

Based on the book "I Never Metadata I Didn't Like"

Conceptually derived from the short story "The Alan Smithee Affair"

PBMD
Metadata Dictionary

for Test Implementation Tasks

13.01 Relation.Type

Describe this Element

Name	Relation.Type
Definition	The element RELATION.TYPE identifies a secondary resource that is related to the primary resource being described. It defines the type of relationship between the second resource and the primary resource. While the primary resource is described using the descriptive fields of an asset management's database record, the second, related resource is identified through the RELATION.TYPE and RELATION.IDENTIFIER fields. The related resource may also have its own, separate record and descriptions in the database. **[see the DCMI Definition]**
Refinements and Encoding Schemes	Types of Relations View Relation Types
Guidelines for Usage	The RELATION.TYPE element identifies 12 ways in which the primary resource is related to a secondary resource. Once the type of relationship is identified, then the element RELATION.IDENTIFIER is used to provide a locator, accession, or identification for the related resource to be found. The various types of relations are defined as follows: 1. **Has Format**: The described resource pre-existed the referenced resource, which is essentially the same intellectual content presented in another format. 2. **Is Format Of**: The described resource is the same intellectual content of the referenced resource, but presented in another format. 3. **Has Part**: The described resource includes the

referenced resource either physically or logically.

4. **Is Part Of**: The described resource is a physical or logical part of the referenced resource
5. **Has Version**: The described resource has a version, edition, or adaptation, namely, the referenced resource.
6. **Is Version Of**: The described resource is a version, edition, or adaptation of the referenced resource. Changes in version imply substantive changes in content rather than differences in format.
7. **References**: The described resource references, cites, or otherwise points to the referenced resource.
8. **Is Referenced By**: The described resource is referenced, cited, or otherwise pointed to by the referenced resource.
9. **Replaces**: The described resource supplants, displaces, or supersedes the referenced resource.
10. **Is Replaced By**: The described resource is supplanted, displaced, or superseded by the referenced resource.
11. **Requires**: The described resource requires the referenced resource to support its function, delivery, or coherence of content.
12. **Is Required By**: The described resource is required by the referenced resource, either physically or logically.

If an alternative representation of the primary audio presentation for a resource exists (see Language.Usage and Description.ProgramRelatedText), then the actual instantiation of that alternative representation may use the RELATION.TYPE and RELATION.IDENTIFIER elements to identify itself.

Obligation to Use	Optional
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

Has Format
Is Format Of
Has Part
Is Part Of
Has Version
Is Version Of
References
Is Referenced By
Replaces
Is Replaced By
Requires
Is Required By

PBMD
Metadata Dictionary

for Test Implementation Tasks

13.02 Relation.Identifier

Describe this Element

Name	Relation.Identifier
Definition	RELATION.IDENTIFIER identifies a secondary resource related to the primary resource by using a specific numbering or labeling scheme to call out the related resource. It is used in combination with the RELATION.TYPE element to cross reference the type of relation with a unique identifier for that relation.
Refinements and Encoding Schemes	Use free-text for data entry.
Guidelines for Usage	Based on the Type of Relation that is specificed in RELATION.TYPE, a specific locator, accession, or identification is designated by using RELATION.IDENTIFIER. If an alternative representation of the primary audio presentation for a resource exists (see Language.Usage and Description.ProgramRelatedText), then the actual instantiation of that alternative representation may use the RELATION.TYPE and RELATION.IDENTIFIER elements to identify itself.
Obligation to Use	Optional
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

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http://www.utah.edu/cpbmetadata/public/
items/PBMD_DC03PaperFinal.pdf

Room 217: Section C: Shelf 5

ISBN 0-07-135026-8

Program ID number for PRSS catalog

Accession Number

PBMD
Metadata Dictionary

for Test Implementation Tasks

14.01 Coverage.Spatial

Describe this Element

Name	Coverage.Spatial
Definition	The element COVERAGE.SPATIAL is used to identify the geographic location of the intellectual content for a resource. Place names may be used or numeric coordinates and geo-spatial data may be useful. **[see the DCMI Definition]**
Refinements and Encoding Schemes	Without the benefit of a public domain geographic thesaurus or readily available and understood authority file, PBMD recommends that the element COVERAGE.SPATIAL use free-form text when entering data.
Guidelines for Usage	When entering place names, coordinates or geospatial data, care should be taken to provide consistent information that can be interpreted by users. Spatial coverage carries within it the concept of physical boundaries and logical jurisdictions. and should be used in order to support more precise searching than provided by the elements SUBJECT, TITLE, or DESCRIPTION. If spatial coverage is sufficiently indicated in the SUBJECT, TITLE, or DESCRIPTION elements, then use of the Coverage.Spatial element is not necessary.
Obligation to Use	Optional
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

Boston, MA
The Great Basin
Panguitch, Utah
Geospatial Data (as available)

14.02 Coverage.Temporal

Describe this Element

Name	Coverage.Temporal
Definition	The element COVERAGE.TEMPORAL is used for date, period, and time-based events. It identifies the extent or scope of the resource's content from the perspective of the temporal or time characteristics of the intellectual content of a resource. Time periods are preferred over numeric identifiers. **[see the DCMI Definition]**
Refinements and Encoding Schemes	Use free-form text entry.
Guidelines for Usage	When entering date and time data, care should be taken to provide consistent information that can be interpreted by users. Temporal coverage carries within it the concept of physical temporal boundaries and should provide additional information to identify the date/time period of the intellectual content of the resource if needed. If a date is approximate, add a question mark but separate the date from the question mark by a space so that the question mark is not interpreted as part of the date value by a search engine. This element should be used in order to support more precise searching than provided by the elements SUBJECT, TITLE, or DESCRIPTION. If temporal coverage is sufficiently indicated in the SUBJECT, TITLE, or DESCRIPTION elements, then use of the COVERAGE.TEMPORAL element is not necessary. PBMD does NOT recommend the use of specific date/time encoding rules as established by the ISO 8601 profile (http://www.w3.org/TR/NOTE-datetime).

Obligation to Use	Optional
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

1995-1996
17th century
1984 ?
US Civil War Era; 1861-1865

PBMD
Metadata Dictionary

for Test Implementation Tasks

16.01 Audience.Level

Describe this Element

Name	Audience.Level
Definition	The element AUDIENCE.LEVEL identifies type of user for whom a resource is designed, intended and appropriate given an age range or educational level. **[see the DCMI Definition]**
Refinements and Encoding Schemes	PBMD recommends a picklist using the Library of Congress identifiers. View LOC Educational Sectors
Guidelines for Usage	The capacity to designate the intended users of a resource being described is an important function in searching for, discovering, and appropriately using resources, especially in educational settings. Frequently, creators and publishers of resources explicitly state the type of user for whom a resource is designed, intended and appropriate by an age range or educational level. PBMD recommends selecting from a picklist of audience level identifiers.
Obligation to Use	Optional
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

K-12 (general)
Pre-school (kindergarten)
Primary (grades 1-6)
Intermediate (grades 7-9)
High School (grades 10-12)
College
Post Graduate
General Education
Educator
Vocational
Adult
Special Audiences
General
Male
Female
Other

PBMD
Metadata Dictionary

for Test Implementation Tasks

16.02 Audience.Rating

Describe this Element

Name	Audience.Rating
Definition	The element AUDIENCE.RATING designates categories of users for whom the resource is intended or judged appropriate. Standard ratings have been crafted by the broadcast television and film industries and are used as flags for age-appropriate materials.
Refinements and Encoding Schemes	TV Parental Guidelines **http://www.fcc.gov/vchip/#guidelines** **http://www.mpaa.org/tv/index.htm** View FCC Parental Guidelines MPAA Movie Ratings **http://www.mpaa.org/movieratings/index.htm** View MPAA Movie Ratings
Guidelines for Usage	PBMD recommends using either the Federal Communications Commission (FCC) TV Parental Guidelines or the Motion Picture Association of American (MPAA) audience ratings system, depending on whether the resource is intended for broadcast or movie theatre presentation. Below are extended explanations of these audience ratings systems.: **TV PARENTAL GUIDELINES:** The following categories apply to programs designed solely for children: The following categories apply to programs designed solely for children: 1. **TV-Y All Children** This program is designed to be appropriate for all children.

Whether animated or live-action, the themes and elements in this program are specifically designed for a very young audience, including children from ages 2-6. This program is not expected to frighten younger children.

2. **TV-Y7 Directed to Older Children**
   This program is designed for children age 7 and above. It may be more appropriate for children who have acquired the developmental skills needed to distinguish between make-believe and reality. Themes and elements in this program may include mild fantasy violence or comedic violence, or may frighten children under the age of 7. Therefore, parents may wish to consider the suitability of this program for their very young children. Note: For those programs where fantasy violence may be more intense or more combative than other programs in this category, such programs will be designated TV-Y7-FV.

The following categories apply to programs designed for the entire audience:

1. **TV-G General Audience**
   Most parents would find this program suitable for all ages. Although this rating does not signify a program designed specifically for children, most parents may let younger children watch this program unattended. It contains little or no violence, no strong language and little or no sexual dialogue or situations.
2. **TV-PG Parental Guidance Suggested**
   This program contains material that parents may find unsuitable for younger children. Many parents may want to watch it with their younger children. The theme itself may call for parental guidance and/or the program contains one or more of the following:
   (V) moderate violence
   (S) some sexual situations
   (L) infrequent coarse language
   (D) suggestive dialogue
3. **TV-14 Parents Strongly Cautioned**
   This program contains some material that many parents would find unsuitable for children under 14 years of age. Parents are strongly urged to exercise greater care in monitoring this program and are cautioned against letting children under the age of 14 watch unattended. This program contains one or more of the following:
   (V) intense violence
   (S) intense sexual situations
   (L) strong coarse language
   (D) intensely suggestive dialogue
4. **TV-MA Mature Audience Only**
   This program is specifically designed to be viewed by adults and therefore may be unsuitable for children under 17. This program contains one or more of the following:
   (V) graphic violence
   (S) explicit sexual activity
   (L) crude, indecent language

MPAA MOVIE RATINGS:

1. **G**
   Intended for general audiences. All ages are admitted.
2. **PG**
   Parental guidance is suggested. Some material may not be suitable for children.
3. **PG-13**
   Parents strongly cautioned. Some materials may be inappropriate for children under 13.
4. **R**
   Restricted. Under 17 requires accompanying parent or adult guardian.
5. 5. **NC-17**
   No one 17 and under admitted.

Obligation to Use	Optional
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

TV-Y (all children)
TV-Y7 (children 7 and up)
TV-Y7-FV (fantasy violence)
TV-G (general audience)
TV-PG (parental guidence suggested)
TV-PG (V) (moderate violence)
TV-PG (S) (some sexual situatons)
TV-PG (L) (infrequent coarse language)
TV-PG (D) (suggestive dialogue)
TV-PG (V) (intense violence)
TV-PG (D) (suggestive violence)
TV-14 (V) (intense violence)
TV-14 (S) (intense sexual situations)
TV-14 (L) (strong coarse language)

TV-14 (D) (intensely suggestive dialogue)
TV-MA (mature audience only)
TV-MA (V) (graphic violence)
TV-MA (S) (explicit sexual activity)
TV-MA (L) (crude, indecent language)
-
G (general audiences)
PG (parental guidance suggested)
PG-13 (parents strongly cautioned)
R (restricted)
NC-17 (age 18 and older)

PBMD
Metadata Dictionary

for Test Implementation Tasks

02.00 Creator

Describe this Element

Name	Creator
Definition	The element CREATOR is used to identify the primary entity or entities responsible for making the content of a resource or asset. The Creator or Author may be a person, business, organization, group, Project or service. Use the element CREATOR.ROLE to identify the specific role played by a creator. **[see the DCMI Definition]**
Refinements and Encoding Schemes	AACR2 Cataloging Rules (Anglo-American Cataloging Rules, 2nd edition) **http://www.library.cornell.edu/tsmanual/**

Guidelines for Usage

Use of an authority file to enter names and organizations is preferred. PBMD recommends the following rules:

FOR PERSONAL NAMES:
Enter personal names in inverted form using commas as indicated here:
LastName, FirstName MiddleName, Suffix.
Substitute a MiddleInitial for a MiddleName as appropriate, or ignore both if not available. The suffix is any type of academic credential (Ph.D., Ed.D.) or familial lineage (Smithee, Alan, III)

FOR CORPORATE OR ORGANIZATIONAL NAMES:
Enter corporate names in full direct form. Use the most specific and commonly used official name if it is distinctive enough to identify the organization. Otherwise use the higher, more encompassing organization name, followed by

	the unit or subdivision name. In the case of a corporate hierarchy (e.g. main division. subdivision), separate the components with <period space>, e.g., State of Utah. Film Commission. For a very enlightening discussion on the complexities of displaying names, see "**Representing People's Names in Dublin Core**."
Obligation to Use	Mandatory
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

Smith, Jedidiah
Minnesota Public Radio
KUED-TV
KUER-FM
Central Intelligence Agency
State of Utah. Film Commission
University of Utah. Department of Communication
Prostate Cancer Awareness Project
White Mountain Films
Simpson, Lisa, Ph.D.

PBMD
Metadata Dictionary

for Test Implementation Tasks

02.01 Creator.Role

Describe this Element

Name	Creator.Role
Definition	Unlike print resources, there is no single role, such as author, that is commonly understood to have primary responsibility for the creation of the intellectual content of media resources, such as audio, video, film assets, and their digital instantiations. In these situations, creators have many different roles, each deemed to have primary responsibility for the creation of the essence, such as the instructor for a video course, the interviewee from a video history program, or the director of a feature film.
Refinements and Encoding Schemes	Select from a picklist of creator roles. View Creator Roles
Guidelines for Usage	For each instance of the metadata element CREATOR, specify the role played by that individual or organization, choosing from a picklist of values.
Obligation to Use	Mandatory
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

Artist
Associate Producer
Cinematographer
Composer
Co-Producer
Creator
Director
Editor
Essayist
Executive Producer
Illustrator
Other
Photographer
Producer
Production Unit
Witness
Writer

PBMD
Metadata Dictionary

for Test Implementation Tasks

05.00 Publisher

Describe this Element

Name	Publisher
Definition	The element PUBLISHER identifies an entity responsible for distributing or making a resource available to other end-users and communities. A PUBLISHER may be a person, business, organization, group, Project or service. Some resources do not have a publisher or distributor, and thus would not have an entry under PUBLISHER. Use the element PUBLISHER.ROLE to identify the specific role played by a publisher/distributor. **[see the DCMI Definition]**
Refinements and Encoding Schemes	AACR2 Cataloging Rules (Anglo-American Cataloging Rules, 2nd edition) **http://www.library.cornell.edu/tsmanual/**
Guidelines for Usage	According to **Dublin Core**, the intent of specifying this field is to identify the entity that provides access to the resource. If the Creator and Publisher are the same, do not repeat the name in the Publisher area. If the nature of the responsibility is ambiguous, the recommended practice is to use Publisher for organizations, and Creator for individuals. In cases of lesser responsibility, other than creation, use Contributor. A distributor may be considered as a publisher. **AMIA** defines a distributor as "the person or corporate body which sells, leases, rents, or in some matter makes available moving image works." Use of an authority file to enter names and organizations is preferred. PBMD recommends the following rules:

FOR PERSONAL NAMES:
Enter personal names in inverted form using commas as indicated here:
LastName, FirstName MiddleName, Suffix.
Substitute a MiddleInitial for a MiddleName as appropriate, or ignore both if not available. The suffix is any type of academic credential (Ph.D., Ed.D.) or familial lineage (Smithee, Alan, III)

FOR CORPORATE OR ORGANIZATIONAL NAMES:
Enter corporate names in full direct form. Use the most specific and commonly used official name if it is distinctive enough to identify the organization. Otherwise use the higher, more encompassing organization name, followed by the unit or subdivision name. In the case of a corporate hierarchy (e.g. main division. subdivision), separate the components with <period space>, e.g., State of Utah. Film Commission.

For a very enlightening discussion on the complexities of displaying names, see "**Representing People's Names in Dublin Core**."

Obligation to Use	Mandatory
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

University of Utah Press
Minnesota Public Radio
KUED-TV
KUER-FM

University of Utah. Department of Communication

State of Utah. Film Commission

Prostate Cancer Awareness Project

White Mountain Films

PBMD
Metadata Dictionary

for Test Implementation Tasks

05.01 Publisher.Role

Describe this Element

Name	Publisher.Role
Definition	Use the element PUBLISHER.ROLE to identify the Role that is played by a specific Publisher or Publishing entity.
Refinements and Encoding Schemes	Select from a picklist of publisher roles. View Publisher Roles
Guidelines for Usage	For each instance of the metadata element PUBLISHER, specify the role played by that individual or organization. Preference is to use a pre-defined list of Publisher Roles rather than the use of informal, free-form text entires. A distributor may be considered as a publisher. **AMIA** defines a distributor as "the person or corporate body which sells, leases, rents, or in some matter makes available moving image works." Thus distributor is a role played by a publisher.
Obligation to Use	Mandatory
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

Copyright Holder
Distributor
Presenter
Publisher
Release Agent

PBMD
Metadata Dictionary

for Test Implementation Tasks

06.00 Contributor

Describe this Element

Name	Contributor
Definition	An entity responsible for making contributions to the content of the Resource, but whose contribution is secondary to any entity specified in the CREATOR element (for example, film editor, screenwriter, narrator). Examples of CONTRIBUTOR include a person, an organization, or a service. Use the element CONTRIBUTOR.ROLE to identify the specific role played by a contributor.**[see the DCMI Definition]**
Refinements and Encoding Schemes	AACR2 Cataloging Rules (Anglo-American Cataloging Rules, 2nd edition) **http://www.library.cornell.edu/tsmanual/**
Guidelines for Usage	Use of an authority file to enter names and organizations is preferred. PBMD recommends the following rules: **FOR PERSONAL NAMES:** Enter personal names in inverted form using commas as indicated here: LastName, FirstName MiddleName, Suffix. Substitute a MiddleInitial for a MiddleName as appropriate, or ignore both if not available. The suffix is any type of academic credential (Ph.D., Ed.D.) or familial lineage (Smithee, Alan, III) **FOR CORPORATE OR ORGANIZATIONAL NAMES:** Enter corporate names in full direct form. Use the most specific and commonly used official name if it is distinctive enough to identify the organization. Otherwise use the

	higher, more encompassing organization name, followed by the unit or subdivision name. In the case of a corporate hierarchy (e.g. main division. subdivision), separate the components with <period space>, e.g., State of Utah. Film Commission. For a very enlightening discussion on the complexities of displaying names, see "**Representing People's Names in Dublin Core**."
Obligation to Use	Recommended
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

Smith, Jedidiah
Minnesota Public Radio
KUED-TV
KUER-FM
Central Intelligence Agency
State of Utah. Film Commission
University of Utah. Department of Communication
Prostate Cancer Awareness Project
White Mountain Films
Simpson, Lisa, Ph.D.

PBMD
Metadata Dictionary

for Test Implementation Tasks

06.01 Contributor.Role

Describe this Element

Name	Contributor.Role
Definition	Use the element CONTRIBUTOR.ROLE to identify the role which an individual Contributor plays. Include important production credits for a resource, e.g., producer, director, writer, special thanks, funding agencies, programmers, designers, graphics, instructional design, etc.
Refinements and Encoding Schemes	Select from a picklist of contributor roles. View Contributor Roles
Guidelines for Usage	For each instance of the metadata element CONTRIBUTOR, specify the role played by that individual or organization. Preference is to use a pre-defined list of Contributor Roles rather than the use of informal, free-form text entires. However, novel entires are probably justified. Use this element and qualifier to identify important production credits for a resource, e.g., producer, director, writer, special thanks, funding agencies, programmers, designers, graphics, instructional design, etc.
Obligation to Use	Recommended
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

Commentator
Conductor
Writer
Narrator
Host
Funder
Production Engineering

PBMD
Metadata Dictionary

for Test Implementation Tasks

15.01 Rights.Usage

Describe this Element

Name	Rights.Usage
Definition	Use the element RIGHTS.USAGE to identify information about rights held in and over a resource, particularly regarding how the resource may be used, played out, or distributed, eg., for broadcast, for World Wide Web, or for education/classroom use. Information held by this element should help answer questions about when, where and how a resource may be used. **[see the DCMI Definition]**
Refinements and Encoding Schemes	Use free-form text entry.
Guidelines for Usage	Typically, the RIGHTS.USAGE element will contain a rights management statement for the resource, or will reference a service providing such information. Rights information often encompasses Intellectual Property Rights (IPR), Copyright, and various Property Rights. If the Rights element is absent, no assumptions can be made about the status of these and other rights with respect to the resource. Information about Reproduction Rights and a general flag indicating if there are "open" or "restricted" rights are described in the elements RIGHTS.REPRODUCTION and RIGHTS.ACCESS, respectively.
Obligation to Use	Recommended
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

Broadcast
World Wide Web
Non-profit, educational use
For private, home viewing. No public performance allowed.
From each broadcast
Fair Use
Fixed Date
From Original Broadcast
In Perpetuity
Broadcast Rights: From First Broadcast: 5 plays in 6 years beginning 01/23/2004

PBMD
Metadata Dictionary

for Test Implementation Tasks

15.02 Rights.Reproduction

Describe this Element

Name	Rights.Reproduction
Definition	Use the element RIGHTS.REPRODUCTION to identify statements or references that highlight or indicate the rights held in and over a resource, specifically regarding the a third party's rights to reuse, repurpose or reproduce a resource.
Refinements and Encoding Schemes	Use free-form text entry.
Guidelines for Usage	Use a free-form text statement about the reproduction rights or enter a URI or other identifier that refers to a rights metadata record or statement held in another database or rights information repository. Information regarding the right to use, play out or distribute a resource is identified in the element RIGHTS.USAGE.
Obligation to Use	Recommended
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

This object may be copyright-protected. Permission to reuse, publish or reproduce the object must be obtained from the object publisher or copyright holder.

Reproduction rights restricted to non-profit, educational use.

PBMD
Metadata Dictionary

for Test Implementation Tasks

15.03 Rights.Access

Describe this Element

Name	Rights.Access
Definition	The element RIGHTS.ACCESS contains general information identifying the access rights held in and over a resource. There are two options for data entry which are used as flags to trigger certain actions or rights information for a resource. These flags are either "open access" or "restricted access."
Refinements and Encoding Schemes	PBMD Rights Access Flags View Suggested Rights Access Flags
Guidelines for Usage	Enter a simple statement about whether access rights for a resource is "open" or "restricted." Based on the statement, other actions may or may not be triggered. For example, if a metadata record for RIGHTS.ACCESS indicates "restricted access," then the Open Archives Project would not search or mine this resource.
Obligation to Use	Recommended
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

Open access
Restricted access

PBMD
Metadata Dictionary

for Test Implementation Tasks

07.01 Date.Created

Describe this Element

Name	Date.Created
Definition	Use the element DATE.CREATED to specify the creation date for a resource or program. **[see the DCMI Definition]**
Refinements and Encoding Schemes	W3C-DTF encoding rules for dates and times, a profile based on ISO 8601 **http://www.w3.org/TR/NOTE-datetime**
Guidelines for Usage	The element DATE.CREATED refers to the creation date of the resource in its life cycle. Dates associated with the creation of a metadata record itself should be handled by a Digital Asset Management system, not the PBMD. Do not confuse dates in this element with dates and time indicated in the element COVERAGE.TEMPORAL. The various qualified elements for DATE are for administrative events such as final creation of the resource or its issuance or last modification. DATE has to do with the physical instantiation of a resource, not the intellectual content found within a resource. A properly formatted date consists of an ASCII date string of 10 characters for the standard date format YYYY-MM-DD (1998-01-24), unless time stamps are included (T08:15:30-05:00). • Year (YYYY) is defined as 0000 to 9999. • Month (MM) is defined as 01 to 12. • Day (DD) is defined as 01 to 28, 29, 30 or 31 as applicable. • The separator between date fields isa hyphen, (-). If needed, the time stamp (Thh:mm:ssTZD) directly follows

the date designation. It begins with the letter "T" to flag that a time stamp is present.

The time format (hh:mm:ss) consists of two digit designations for hours, minutes and seconds (19:20:30) in a 24 hour clock mode. If necessary, the seconds may be further defined by a decimal fraction of a second (19:20:30.45).

The time zone designator (TZD)completes the statement and consists of a + or - sign and the number of hours a particular time zone deviates from Greenwich Mean Time.

If a date is approximate, add a question mark but separate the date from the question mark by a space so that the question mark is not interpreted as part of the date value by a search engine. Generally, year or year-month-day will provide enough precision.

If the full date is unknown, month and year (YYYY-MM) or just year (YYYY) may be used. Many other schema are possible, but if used, they may not be easily interpreted by users or software.

Obligation to Use	Mandatory
Repeatable Element	Apply once
Type of Data Entry	Text String

Show Me Examples

Year:
YYYY (eg 1997)

Year and month:
YYYY-MM (eg 1997-07)

Complete date:
YYYY-MM-DD (eg 1997-07-16)

Complete date plus hours and minutes:
YYYY-MM-DDThh:mmTZD (eg 1997-07-16T19:20+01:00)

Complete date plus hours, minutes and seconds:
YYYY-MM-DDThh:mm:ssTZD (eg 1997-07-16T19:20:30+01:00)

Complete date plus hours, minutes, seconds and a decimal fraction of a second:
YYYY-MM-DDThh:mm:ss.sTZD (eg 1997-07-16T19:20:30.45+01:00)

1994-11-05T08:15:30-05:00 corresponds to November 5, 1994, 8:15:30 am, US Eastern Standard Time

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1998 ?

PBMD
Metadata Dictionary

for Test Implementation Tasks

07.02 Date.Issued

Describe this Element

Name	Date.Issued
Definition	The element DATE.ISSUES specifies the date of formal issuance of a resource for consumption or distribution. **[see the DCMI Definition]**
Refinements and Encoding Schemes	W3C-DTF encoding rules for dates and times, a profile based on ISO 8601 **http://www.w3.org/TR/NOTE-datetime**
Guidelines for Usage	The element DATE.ISSUED refers to the date that the resource was officially released or issued for consumption or distribution. Dates associated with the creation of a metadata record itself should be handled by a Digital Asset Management system, not the PBMD. Do not confuse dates in this element with dates and time indicated in the element COVERAGE.TEMPORAL. The various qualified elements for DATE are for administrative events such as final creation of the resource or its issuance or last modification. DATE has to do with the physical instantiation of a resource, not the intellectual content found within a resource. A properly formatted date consists of an ASCII date string of 10 characters for the standard date format YYYY-MM-DD (1998-01-24), unless time stamps are included (T08:15:30-05:00). • Year (YYYY) is defined as 0000 to 9999. • Month (MM) is defined as 01 to 12. • Day (DD) is defined as 01 to 28, 29, 30 or 31 as applicable. • The separator between date fields isa hyphen, (-).

If needed, the time stamp (Thh:mm:ssTZD) directly follows the date designation. It begins with the letter "T" to flag that a time stamp is present.

The time format (hh:mm:ss) consists of two digit designations for hours, minutes and seconds (19:20:30) in a 24 hour clock mode. If necessary, the seconds may be further defined by a decimal fraction of a second (19:20:30.45).

The time zone designator (TZD)completes the statement and consists of a + or - sign and the number of hours a particular time zone deviates from Greenwich Mean Time.

If a date is approximate, add a question mark but separate the date from the question mark by a space so that the question mark is not interpreted as part of the date value by a search engine. Generally, year or year-month-day will provide enough precision.

If the full date is unknown, month and year (YYYY-MM) or just year (YYYY) may be used. Many other schema are possible, but if used, they may not be easily interpreted by users or software.

Obligation to Use	Mandatory
Repeatable Element	Apply once
Type of Data Entry	Text String

Show Me Examples

Year:
YYYY (eg 1997)

Year and month:
YYYY-MM (eg 1997-07)

Complete date:
YYYY-MM-DD (eg 1997-07-16)

Complete date plus hours and minutes:
YYYY-MM-DDThh:mmTZD (eg 1997-07-16T19:20+01:00)

Complete date plus hours, minutes and seconds:
YYYY-MM-DDThh:mm:ssTZD (eg 1997-07-16T19:20:30+01:00)

Complete date plus hours, minutes, seconds and a decimal fraction of a second:
YYYY-MM-DDThh:mm:ss.sTZD (eg 1997-07-16T19:20:30.45+01:00)

1994-11-05T08:15:30-05:00 corresponds to November 5, 1994, 8:15:30 am, US Eastern Standard Time

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1998 ?

PBMD
Metadata Dictionary

for Test Implementation Tasks

07.03 Date.AvailableStart

Describe this Element

Name	Date.AvailableStart
Definition	A specific start date for a resource's availability. May refer to start dates for the availability of a program that is broadcast locally, regionally, nationally or internationally. **[see the DCMI Definition]**
Refinements and Encoding Schemes	W3C-DTF encoding rules for dates and times, a profile based on ISO 8601 **http://www.w3.org/TR/NOTE-datetime**
Guidelines for Usage	The element DATE.AVAILABLESTART refers to the beginning date that the resource is officially available for publication, broadcast or distribution. Dates associated with the the creation of a metadata record itself should be handled by a Digital Asset Management system, not the PBMD. Do not confuse dates in this element with dates and time indicated in the element COVERAGE.TEMPORAL. The various qualified elements for DATE are for administrative events such as final creation of the resource or its issuance or last modification. DATE has to do with the physical instantiation of a resource, not the intellectual content found within a resource. A properly formatted date consists of an ASCII date string of 10 characters for the standard date format YYYY-MM-DD (1998-01-24), unless time stamps are included (T08:15:30-05:00). • Year (YYYY) is defined as 0000 to 9999. • Month (MM) is defined as 01 to 12. • Day (DD) is defined as 01 to 28, 29, 30 or 31 as applicable. • The separator between date fields isa hyphen, (-).

If needed, the time stamp (Thh:mm:ssTZD) directly follows the date designation. It begins with the letter "T" to flag that a time stamp is present.

The time format (hh:mm:ss) consists of two digit designations for hours, minutes and seconds (19:20:30) in a 24 hour clock mode. If necessary, the seconds may be further defined by a decimal fraction of a second (19:20:30.45).

The time zone designator (TZD)completes the statement and consists of a + or - sign and the number of hours a particular time zone deviates from Greenwich Mean Time.

If a date is approximate, add a question mark but separate the date from the question mark by a space so that the question mark is not interpreted as part of the date value by a search engine. Generally, year or year-month-day will provide enough precision.

If the full date is unknown, month and year (YYYY-MM) or just year (YYYY) may be used. Many other schema are possible, but if used, they may not be easily interpreted by users or software.

To avoid problems in indicating date ranges, PBMD has spawned two separate qualified dates to mark the availability of a resource:
Date.AvailableStart
Date.AvailableEnd

Obligation to Use	Optional
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

Year:
YYYY (eg 1997)

Year and month:
YYYY-MM (eg 1997-07)

Complete date:
YYYY-MM-DD (eg 1997-07-16)

Complete date plus hours and minutes:
YYYY-MM-DDThh:mmTZD (eg 1997-07-16T19:20+01:00)

Complete date plus hours, minutes and seconds:
YYYY-MM-DDThh:mm:ssTZD (eg 1997-07-16T19:20:30+01:00)

Complete date plus hours, minutes, seconds and a decimal fraction of a second:
YYYY-MM-DDThh:mm:ss.sTZD (eg 1997-07-16T19:20:30.45+01:00)

1994-11-05T08:15:30-05:00 corresponds to November 5, 1994, 8:15:30 am, US Eastern Standard Time

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1998 ?

PBMD
Metadata Dictionary

for Test Implementation Tasks

07.04 Date.AvailableEnd

Describe this Element

Name	Date.AvailableEnd
Definition	A specific end date for a resource's availability. May refer to end dates for the availability of a program that is broadcast locally, regionally, nationally or internationally. **[see the DCMI Definition]**
Refinements and Encoding Schemes	W3C-DTF encoding rules for dates and times, a profile based on ISO 8601 **http://www.w3.org/TR/NOTE-datetime**
Guidelines for Usage	The element DATE.AVAILABLEEND refers to the date that the resource is officially unavailable for publication, broadcast or distribution. Dates associated with the creation of a metadata record itself should be handled by a Digital Asset Management system, not the PBMD. Do not confuse dates in this element with dates and time indicated in the element COVERAGE.TEMPORAL. The various qualified elements for DATE are for administrative events such as final creation of the resource or its issuance or last modification. DATE has to do with the physical instantiation of a resource, not the intellectual content found within a resource. A properly formatted date consists of an ASCII date string of 10 characters for the standard date format YYYY-MM-DD (1998-01-24), unless time stamps are included (T08:15:30-05:00). • Year (YYYY) is defined as 0000 to 9999. • Month (MM) is defined as 01 to 12. • Day (DD) is defined as 01 to 28, 29, 30 or 31 as applicable. • The separator between date fields isa hyphen, (-).

If needed, the time stamp (Thh:mm:ssTZD) directly follows the date designation. It begins with the letter "T" to flag that a time stamp is present.

The time format (hh:mm:ss) consists of two digit designations for hours, minutes and seconds (19:20:30) in a 24 hour clock mode. If necessary, the seconds may be further defined by a decimal fraction of a second (19:20:30.45).

The time zone designator (TZD)completes the statement and consists of a + or - sign and the number of hours a particular time zone deviates from Greenwich Mean Time.

If a date is approximate, add a question mark but separate the date from the question mark by a space so that the question mark is not interpreted as part of the date value by a search engine. Generally, year or year-month-day will provide enough precision.

If the full date is unknown, month and year (YYYY-MM) or just year (YYYY) may be used. Many other schema are possible, but if used, they may not be easily interpreted by users or software.

To avoid problems in indicating date ranges, PBMD has spawned two separate qualified dates to mark the availability of a resource:
Date.AvailableStart
Date.AvailableEnd

Obligation to Use	Optional
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

Year:
YYYY (eg 1997)

Year and month:
YYYY-MM (eg 1997-07)

Complete date:
YYYY-MM-DD (eg 1997-07-16)

Complete date plus hours and minutes:
YYYY-MM-DDThh:mmTZD (eg 1997-07-16T19:20+01:00)

Complete date plus hours, minutes and seconds:
YYYY-MM-DDThh:mm:ssTZD (eg 1997-07-16T19:20:30+01:00)

Complete date plus hours, minutes, seconds and a decimal fraction of a second:
YYYY-MM-DDThh:mm:ss.sTZD (eg 1997-07-16T19:20:30.45+01:00)

1994-11-05T08:15:30-05:00 corresponds to November 5, 1994, 8:15:30 am, US Eastern Standard Time

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1998 ?

PBMD
Metadata Dictionary

for Test Implementation Tasks

09.01 Format.Physical

Describe this Element

Name	Format.Physical
Definition	Use the element FORMAT.PHYSICAL to identify the physical manifestation of a resource as it may exist in a format or carrier that occupies physical space dimensions. **[see the DCMI Definition]**
Refinements and Encoding Schemes	Select from picklists of physical formats. View Physical Formats: Video/Audio View Physical Formats: Images View Physical Formats: Text
Guidelines for Usage	Best practice is to select from a controlled vocabulary list.
Obligation to Use	Mandatory
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

1 inch videotape
DVC-Pro 50
DVD-Video Disc
Manuscript
Photograph

PBMD
Metadata Dictionary

for Test Implementation Tasks

09.02 Format.Digital

Describe this Element

Name	Format.Digital
Definition	Use the element FORMAT.DIGITAL to identify the digital instantiation of a resource that may or may not have existed originally in an analog, physical form. Digital media formats may be expressed with formal Internet MIME types. **[see the DCMI Definition]**
Refinements and Encoding Schemes	PBMD Aggregate Picklist View PBMD Digital Formats
Guidelines for Usage	Best practice is to select from a controlled vocabulary list. For a review of the meaning behind the digital formats and MIME types, consult these websites: IMT: Internet Media Types **http://www.isi.edu/in-notes/iana/assignments/media-types/media-types** Text and Text-Related Types **http://www.utoronto.ca/webdocs/HTMLdocs/Book/Book-3ed/appb/mimetype.html#text** HTML Stylesheet **http://www.utoronto.ca/webdocs/HTMLdocs/Book/Book-3ed/appb/mimetype.html#styl** Image **http://www.utoronto.ca/webdocs/HTMLdocs/Book/Book-3ed/appb/mimetype.html#imag**

Audio/Voice/Music
http://www.utoronto.ca/webdocs/HTMLdocs/Book/Book-3ed/appb/mimetype.html#audi

Video
http://www.utoronto.ca/webdocs/HTMLdocs/Book/Book-3ed/appb/mimetype.html#vide

2D/3D Data/Virtual reality
http://www.utoronto.ca/webdocs/HTMLdocs/Book/Book-3ed/appb/mimetype.html#vrml

Scientific/Math/CAD
http://www.utoronto.ca/webdocs/HTMLdocs/Book/Book-3ed/appb/mimetype.html#math

Special HTTP/Web Application
http://www.utoronto.ca/webdocs/HTMLdocs/Book/Book-3ed/appb/mimetype.html#spec

Application Type: Text-related
http://www.utoronto.ca/webdocs/HTMLdocs/Book/Book-3ed/appb/mimetype.html#trel

Application Type: Archive/Compressed Archives
http://www.utoronto.ca/webdocs/HTMLdocs/Book/Book-3ed/appb/mimetype.html#arch

Application Type: Program/Scripts
http://www.utoronto.ca/webdocs/HTMLdocs/Book/Book-3ed/appb/mimetype.html#prog

Application Type: Animation/Multimedia
http://www.utoronto.ca/webdocs/HTMLdocs/Book/Book-3ed/appb/mimetype.html#anim

Application Type: Presentation
http://www.utoronto.ca/webdocs/HTMLdocs/Book/Book-3ed/appb/mimetype.html#pres

Application Type: Special Embedded Object
http://www.utoronto.ca/webdocs/HTMLdocs/Book/Book-3ed/appb/mimetype.html#spece

Application Type: General Applications

http://www.utoronto.ca/webdocs/HTMLdocs/Book/Book-3ed/appb/mimetype.html#gene

Obligation to Use	Mandatory
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

application/vnd.ms-powerpoint
audio/x-aiff
image/jpeg
text/pdf
video/quicktime

PBMD
Metadata Dictionary

for Test Implementation Tasks

09.03 Format.Identifier

Describe this Element

Name	Format.Identifier
Definition	Use the element FORMAT.IDENTIFIER to provide an unambigious identifier that tells a user where the digital or physical format is located.
Refinements and Encoding Schemes	Use free-form text entry.
Guidelines for Usage	The data for FORMAT.IDENTIFIER may be a URL, URI, physical location ID, barcode, etc.
Obligation to Use	Mandatory
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

http://www.utah.edu/cpbmetadata/public/items/PBMD_DC03PaperFinal.pdf

Room 217: Section C: Shelf 5

PBMD
Metadata Dictionary

for Test Implementation Tasks

09.04 Format.FileSize

Describe this Element

Name	Format.FileSize
Definition	Use the element FORMAT.FILESIZE to indicate the storage requirements or file size of a digital resource. As a standard, express the file size in bytes.
Refinements and Encoding Schemes	Express the measurement in bytes. Do not use kilobytes, megabytes or gigabytes.
Guidelines for Usage	Express the measurement in bytes. Do not use kilobytes, megabytes or gigabytes. The exact conversion is as follows: 1 Byte = 8 Bit 1 Kilobyte = 1024 Bytes 1 Megabyte = 1048576 Bytes 1 Gigabyte = 1073741824 Bytes To convert a file size into bytes, PBMD suggests using an online byte calculator. For example: • **http://webdeveloper.earthweb.com/repository/javascripts/2001/04/41291/byteconverter.htm** • **http://www.techtutorials.com/reference/byteconverter.shtml**
Obligation to Use	Mandatory
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

4000 bytes
Use 409600 bytes for a 400 kilobyte file
Use 1258291.2 bytes for a 1.2 megabyte file
Use 4831838208 bytes for a 4.5 gigabyte file

PBMD
Metadata Dictionary

for Test Implementation Tasks

09.05 Format.AudioBitDepth

Describe this Element

Name	Format.AudioBitDepth
Definition	For a program or resource, the element FORMAT. AUDIOBITDEPTH measures an audio signal by the number of data bits assigned to a sample. Audio bit depth answers the question "How Much" data is allocated to a digital sampling of an audio signal. It provides information important for identifying retrieval and playback/display requirements for a resource. It is also an indicator of the perceived playback quality of the resource.
Refinements and Encoding Schemes	Select from a picklist of values. View Audio Bit Depths
Guidelines for Usage	Best practice is to select from a picklist of values.
Obligation to Use	Mandatory
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

8 bit
16 bit
20 bit
24 bit

PBMD
Metadata Dictionary

for Test Implementation Tasks

09.06 Format.AudioChannelConfiguration

Describe this Element

Name	Format.AudioChannelConfiguration
Definition	The element FORMAT.AUDIOCHANNELCONFIGURATION indicates the number and configuration of audio channels for a media item, file or stream.
Refinements and Encoding Schemes	Based on the circumstances associated with the audio item, file or stream, use free-form text entry.
Guidelines for Usage	Based on the circumstances associated with the audio item, file or stream, use free-form text entry. Given legacy and contemporary analog and digital media forms, there are too many variables to capture in a single picklist of values.
Obligation to Use	Mandatory
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

1 track-mono
2 track-stereo
5.1

PBMD
Metadata Dictionary

for Test Implementation Tasks

09.07 Format.AudioDataRate

Describe this Element

Name	Format.AudioDataRate
Definition	The element FORMAT.AUDIODATARATE should be expressed as an amount of data per second. It indicates the amount of data that is played out from a digital audio file for every second. Although optimal data rates are often dependent on the codec used to compress and encode a digital file, generally speaking, a larger data rate translates into a better quality playback.
Refinements and Encoding Schemes	Enter a number followed by the data rate expressed, as the measurement scale per second.
Guidelines for Usage	The measurement scale applied to a data rate is variable depending on the intended purpose of the file (editing, distribution over LAN or Internet, etc.) Enter a number followed by the measurement scale: • kilobits/second • bytes/second • kilobytes/second • megabits/second
Obligation to Use	Mandatory
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

32 kilobits/sec
200 kilobits/sec
300 kilobytes/sec
1.2 megabits/sec
8.0 megabits/sec

PBMD
Metadata Dictionary

for Test Implementation Tasks

09.08 Format.AudioSamplingRate

Describe this Element

Name	Format.AudioSamplingRate
Definition	For a program or resource, the element FORMAT. AUDIOSAMPLINGRATE measures an audio signal by the number of kiloHertz and answers the question "How Often" data is sampled for a digital audio signal. It provides information important for identifying retrieval and playback/display requirements for a resource. It is also an indicator of the perceived playback quality of the resource.
Refinements and Encoding Schemes	Select from a picklist of values. View Audio Sampling Rates
Guidelines for Usage	Best practice is to select from a picklist of values.
Obligation to Use	Mandatory
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

11 kHz
22.050 kHz
32 kHz
44.1 kHz
48 kHz
96 kHz

PBMD
Metadata Dictionary

for Test Implementation Tasks

09.09 Format.ImageAspectRatio

Describe this Element

Name	Format.ImageAspectRatio
Definition	The element FORMAT.IMAGEASPECTRATIO indicates the ratio of horizontal to vertical proportions in the display of an static image or moving image.
Refinements and Encoding Schemes	Select from a picklist of values. View Image/Video Aspect Ratios
Guidelines for Usage	Best practice is to select from a picklist of values.
Obligation to Use	Mandatory
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

4:3
4:3 (16:9 letterbox)
4:3 (16:9 anamorphic)
16:9
5.5:3
7:3 (Panavision or CinemaScope)
2.35:1
1.85:1

PBMD
Metadata Dictionary

for Test Implementation Tasks

09.10 Format.ImageBitDepth

Describe this Element

Name	Format.ImageBitDepth
Definition	For a program or resource, the element FORMAT. IMAGEBITDEPTH measures a still or moving image in terms of the number of bits in a sample, and answers the question "How Much" data is allocated to a digital sampling. Provides information important for identifying retrieval and playback/display requirements for a resource. Also is an indicator of the perceived quality of the playback
Refinements and Encoding Schemes	Select from a picklist of values. View Video/Image Bit Depths
Guidelines for Usage	Best practice is to select from a picklist of values.
Obligation to Use	Mandatory
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

---

8 bit
10 bit
16 bit
24 bit
32 bit

PBMD
Metadata Dictionary

for Test Implementation Tasks

09.11 Format.ImageChannelConfiguration

Describe this Element

Name	Format.ImageChannelConfiguration
Definition	The element FORMAT.IMAGECHANNELCONFIGURATION indicates the number of image or video channels (or layers) configured for the playback of a media item, file or stream.
Refinements and Encoding Schemes	Enter a number (positive integer).
Guidelines for Usage	Enter a number (positive integer) representing the quantity of channels.
Obligation to Use	Mandatory
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

1
2
3
4

PBMD
Metadata Dictionary

for Test Implementation Tasks

09.12 Format.ImageColorCode

Describe this Element

Name	Format.ImageColorCode
Definition	The element FORMAT.IMAGECOLORCODE indicates the color or lack of color in a resource. It does not measure the specific color metrics of a static image or moving image, but describes the asset in a more general way.
Refinements and Encoding Schemes	Select from a picklist of values. View Image Color Codes
Guidelines for Usage	Indicates if the resource is all color, black and white, or has a primary color scheme with other sequences embedded. Best practice is to select from a picklist of values.
Obligation to Use	Mandatory
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

B&W
B&W with color sequences
Color
Color with B&W sequences

PBMD
Metadata Dictionary

for Test Implementation Tasks

09.13 Format.ImageDataRate

Describe this Element

Name	Format.ImageDataRate
Definition	The element FORMAT.IMAGEDATARATE should be expressed as an amount of data per second. It indicates the amount of data that is played out from a digital video file for every second. Although optimal data rates are often dependent on the codec used to compress and encode a digital file, generally speaking, a larger data rate translates into a better quality playback.
Refinements and Encoding Schemes	Enter a number followed by the data rate, expressed as the measurement scale per second.
Guidelines for Usage	The measurement scale applied to a data rate is variable depending on the intended purpose of the file (editing, distribution over LAN or Internet, etc.) Enter a number followed by the measurement scale: • kilobits/second • bytes/second • kilobytes/second • megabits/second
Obligation to Use	Mandatory
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

32 kilobits/sec
200 kilobits/sec
300 kilobytes/sec
1.2 megabits/sec
8.0 megabits/sec

PBMD
Metadata Dictionary

for Test Implementation Tasks

09.14 Format.ImageFrameRate

Describe this Element

Name	Format.ImageFrameRate
Definition	The element FORMAT.IMAGEFRAMERATE indicates the frames per second found in a video or motion sequence's playback or display.
Refinements and Encoding Schemes	Select from a picklist of values. View Moving Image Frame Rates
Guidelines for Usage	Best practice is to select from picklist of values.
Obligation to Use	Mandatory
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

---

60 fields/sec
30 fps
29.97 fps
25 fps
24 fps
15 fps
12 fps
10 fps
7 fps
5 fps
2 fps
1 fps

PBMD
Metadata Dictionary

for Test Implementation Tasks

09.15 Format.ImageFrameSize

Describe this Element

Name	Format.ImageFrameSize
Definition	The element FORMAT.IMAGEFRAMESIZE indicates the horizontal and vertical resolution of a format type. It may be expressed in pixels, pixels per inch, or in the case of ATSC digital TV, a combination of pixels measured horizontally vs. the number of lines of image/resolution data stacked vertically (interlaced and progressive scan).
Refinements and Encoding Schemes	Select from a picklist of values. View Image/Video Frame Sizes ATSC Frame Size Variations View ATSC Frame Size Variations
Guidelines for Usage	Best practice is to select from a picklist of values.
Obligation to Use	Mandatory
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

352x240 (MPEG-1 NTSC)
720x480 (MPEG-1 NTSC & DV)
1280x720
1920x1080
720lineX1280pixel

PBMD
Metadata Dictionary

for Test Implementation Tasks

09.16 Format.TimeStart

Describe this Element

Name	Format.TimeStart
Definition	Indicates a time stamp representing the beginning point for the playback of a resource. Use in combination with FORMAT. DURATION to identify a sequence or segment of a resource that has a fixed start time and end time.
Refinements and Encoding Schemes	AES46-2002 **http://www.w3.org/TR/NOTE-datetime** SMPTE 12M-1999 Television, Audio and Film – Time and Control Code **http://www.smpte.org/smpte_store/standards/**
Guidelines for Usage	PBMD recommends flexibility in expressing time stamps. Radio producers often prefer the simple HH:MM:SS designation. Television producers prefer the SMPTE time code standards HH:MM:SS:FF. Some multimedia architectures express time in HH:MM:SS.mmm, where the mmm represents milliseconds. Consequently, the best practice is to match the time stamp designation to your preferred method: • HH:MM:SS • HH:MM:SS.mmm • HH:MM:SS:FF (SMPTE Timecode nondrop frame-NTSC) • HH;MM;SS;FF (SMPTE Timecode drop frame-NTSC)
Obligation to Use	Mandatory
Repeatable Element	Apply once

Type of Data Entry	Text String

Show Me Examples

01:23:45:09 (SMPTE Timecode nondrop frame-NTSC)
01;23;45;09 (SMPTE Timecode dropframe-NTSC)
01:23:45.365 (Milliseconds Timecode)
02:34:35 (HH:MM:SS)

PBMD
Metadata Dictionary

for Test Implementation Tasks

09.17 Format.Duration

Describe this Element

Name	Format.Duration
Definition	Describes the duration in time units for a resource, if that resource has an identifiable, linear start-to-end playback. FORMAT.DURATION does not describe the time required to utilize a resource in a setting (such as a classroom), but is rather a strict playback time, TimeStart to TimeEnd.
Refinements and Encoding Schemes	AES46-2002 **http://www.w3.org/TR/NOTE-datetime** SMPTE 12M-1999 Television, Audio and Film – Time and Control Code **http://www.smpte.org/smpte_store/standards/**
Guidelines for Usage	PBMD recommends flexibility in expressing time stamps. Radio producers often prefer the simple HH:MM:SS designation. Television producers prefer the SMPTE time code standards HH:MM:SS:FF. Some multimedia architectures express time in HH:MM:SS.mmm, where the mmm represents milliseconds. Consequently, the best practice is to match the time stamp designation to your preferred method: • HH:MM:SS • HH:MM:SS.mmm • HH:MM:SS:FF (SMPTE Timecode nondrop frame-NTSC) • HH;MM;SS;FF (SMPTE Timecode drop frame-NTSC)

Obligation to Use	Mandatory
Repeatable Element	Apply once
Type of Data Entry	Text String

Show Me Examples

01:23:45:09 (SMPTE Timecode nondrop frame-NTSC)
01;23;45;09 (SMPTE Timecode dropframe-NTSC)
01:23:45.365 (Milliseconds Timecode)
02:34:35 (HH:MM:SS)

PBMD
Metadata Dictionary

for Test Implementation Tasks

09.18 Format.Standard

Describe this Element

Name	Format.Standard
Definition	FORMAT.STANDARD identifies an overarching media architecture that circumscribes underlying media formats.
Refinements and Encoding Schemes	Video Format Technical Standards View Video/Film Format Standards Audio Format Technical Standards View Audio Format Standards
Guidelines for Usage	Best practice is to select from a picklist of values.
Obligation to Use	Mandatory
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

NTSC

PAL

Dolby Digital AC3 Audio

MPEG

PBMD
Metadata Dictionary

for Test Implementation Tasks

09.19 Format.Type

Describe this Element

Name	Format.Type
Definition	The element FORMAT.TYPE identifies the particular use or reason for an instance of a media format (moving image, audio, static image, text-based document or artifact). Typically it will indicate the intended purpose of that instance.
Refinements and Encoding Schemes	PBMD Aggregate Picklist View Format Types
Guidelines for Usage	Best practice is to select from a picklist of values.
Obligation to Use	Mandatory
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

Audio/Narration
Moving image/Promo
Static image/Postcard
Text/Cue sheet

PBMD
Metadata Dictionary

for Test Implementation Tasks

09.20 Format.Encoding

Describe this Element

Name	Format.Encoding
Definition	Encoding refers to the extent to which the information content of the document has been interpreted and encoded, rather than merely recorded. Such interpretation may be beneficial for a number of reasons, including as a means of achieving reversible compression; for the construction of document indices to facilitate searching and access; or for efficient distribution of the information across data networks.
Refinements and Encoding Schemes	Use free-form text entry.
Guidelines for Usage	Use free-form text entry to identify the specific encoding and parameters for the resource.
Obligation to Use	Mandatory
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

Sorenson 3
MPEG-1
MPEG-2
MPEG-2 4:2:2
MPEG-4
M-JPEG A
Real Media 9
Windows Media 9
MP3
AAC

PBMD
Metadata Dictionary

for Test Implementation Tasks

10.00 Identifier

Describe this Element

Name	Identifier
Definition	An unambiguous reference or identifier for a resource within a given context. Best practice is to identify a resource by means of a string or number corresponding to an established or formal identification system. **[see the DCMI Definition]**
Refinements and Encoding Schemes	Use free-form text entry.
Guidelines for Usage	Best practice is to identify the resource by means of a string or number corresponding to an established or formal identification system generated within an international standard or as a local identification scheme. Examples include analog location number (box, folder, shelf, desk drawer, etc), ISBN/ISSN (for published text) and URL s (which include the file name) for digital data.
Obligation to Use	Mandatory
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

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http://www.utah.edu/cpbmetadata/public/
items/PBMD_DC03PaperFinal.pdf

Room 217: Section C: Shelf 5

ISBN 0-07-135026-8

Program ID number for PRSS catalog

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Metadata Dictionary

for Test Implementation Tasks

12.00 Language

Describe this Element

Name	Language
Definition	The language or languages of the intellectual content of a resource, usually expressed by the primary audio track. However, alternative audio and textual representations of the main audio or language may exist, e.g., SAP, DVI, Subtitles, Transcripts, Closed Captions, Open Captions. The languages associated with these alternatives are also identified by the element LANGUAGE. **[see the DCMI Definition]**
Refinements and Encoding Schemes	Codes for the Representation of the Names of Languages **http://www.oasis-open.org/cover/iso639a.html** **http://www.loc.gov/standards/iso639-2/**
Guidelines for Usage	PBMD recommends using the three-letter language codes defined by ISO 639-2 instead of 2-letter codes. • **http://www.w3.org/WAI/ER/IG/ert/iso639.htm** • **http://www.oasis-open.org/cover/iso639a.html** If the content is in more than one language, the element may be repeated. If a type of alternative text or audio representation for the primary language of the resource is available (e.g., SAP, DVI, Subtitles, Transcripts, Closed Captions, Open Captions), and is identified by the element LANGUAGE.USAGE, then the language of that alternative form should be identified by the element LANGUAGE and repeated as needed.

See the Definitions and Guidelines for Usage for the elements LANGUAGE.USAGE and DESCRIPTION. PROGRAMRELATEDTEXT for additional information.

Obligation to Use	Mandatory
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

eng (for English)
fre (for French)
eng;fre
mas (for Masai)
yid (for Yiddish)
ara (for Arabic)

PBMD
Metadata Dictionary

for Test Implementation Tasks

12.01 Language.Usage

Describe this Element

Name	Language.Usage
Definition	LANGUAGE.USAGE identifies the existence and type of other audio and textual representations of the main audio or language presentation mode for a resource or asset. LANGUAGE.USAGE may mean the following alternative presentation types or their representations are available: 1. Actual Transcripts 2. Speech-to-Text Transcripts 3. CC1-CC4: Closed Captions 4. Open Captions 5. Subtitles (multiple depending on the medium) 6. DVI: Descriptive Video Information presented as audio 7. SAP1 or SAP2: Other Languages presented as audio
Refinements and Encoding Schemes	Select from a picklist of values. View Language Usage Options
Guidelines for Usage	Actual types of Program Related Text are identified by this element, LANGUAGE.USAGE, and should be selected from a picklist of options. A different element, DESCRIPTION.PROGRAMRELATEDTEXT, contains either the actual text (if of limited length) or indicates a separate, distinct, related file containing that text or a separate audio track. Many Digital Asset Management Systems will associate files that are cataloged separately, but related to an item. Use the element RELATION.TYPE and RELATION.IDENTIFIER to refer to the presence and identification of these other

related formats and forms of the primary audio presentation for a resource.

Use the element LANGUAGE to identify the actual language captured in alternative audio.

The various permutations of Program Related Text may include the following:

1. A transcript may exist as a text document.
2. Speech-to-Text conversions may exist as (a) a text document, or (b) an electronic file with timecodce synchronization data.
3. Closed Captions may exist as (a) a text document, (b) an electronic file with timecode synchronization data, (c) as a video program or broadcast with captioning encoded on SMPTE line 21 of the video signal (NTSC standard), or (d) as data encoded within the "picture user_data" portion of the video stream in DTV (ATSC standard).
4. Open Captions may exist as (a) a text document, (b) an electronic file with timecode synchronization data, (c) as a video program or broadcast with captioning encoded on SMPTE line 21 of the video signal (NTSC standard), (d) as data encoded within the "picture user_data" portion of the video stream in DTV (ATSC standard), or (e) as a completely separate track of text or its graphical representation (DVD-Videodisc standard specification or QuickTime tracks specification).
5. Subtitles may exist as (a) a text document, (b) an electronic file with timecode synchronization data, (c) as a video program or broadcast with captioning encoded on SMPTE line 21 of the video signal (NTSC standard), (d) as data encoded within the "picture user_data" portion of the video stream in DTV (ATSC standard), or (e) as a completely separate track of text or its graphical representation (DVD-Videodisc standard specification or QuickTime tracks specification).

Obligation to Use	Optional
Repeatable Element	Apply multiple times, as needed

Type of Data Entry	Text String

Show Me Examples

Primary audio
DVI
SAP1
SAP2
CC1
CC2
CC3
CC4
Open Caption
DVD Subtitle01
DVD Subtitle12
DVD Subtitle32
Transcript

PBMD
Metadata Dictionary

for Test Implementation Tasks

18.00 Annotation

Describe this Element

Name	Annotation
Definition	The ANNOTATION element is a stand-alone element housing supplementary information about the metadata used to describe a media resource. It clarifies element values and controlled vocabularies that may not be sufficient.
Refinements and Encoding Schemes	Use free-form text entry.
Guidelines for Usage	The ANNOTATION element is envisioned as a Post-it® Note containing comments that further explain or document the descriptions of a media resource through its metadata elements. If the pre-defined elements and qualified elements require further explanation, ANNOTATION should contain this information. Additionally, ANNOTATION is useful in cases where an established controlled vocabulary does not adequately represent certain qualities of an asset.
Obligation to Use	Optional
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

The subject headings for this media resource use entries from MeSH: Medical Subject Headings (http://www.nlm.nih.gov/mesh/meshhome.html).

Many segments of this program were made possible through the funding generosity of the John and Alma Hivner Educational Foundation.

The four parts of this history series are part of a larger collection of primary research resources found in the Lindemann Historical Archives, Bartlesville, Oklahoma.

PBMD
Metadata Dictionary

for Test Implementation Tasks

19.00 Location

Describe this Element

Name	Location
Definition	LOCATION is considered to be an "address for an asset." For an organization or producer acting as caretaker for a media resource, LOCATION may contain information about a specific shelf location for an asset, including an organization's name, departmental name, shelf ID and contact information. The LOCATION for a data file or webpage may include domain, path, filename or html page.
Refinements and Encoding Schemes	Use free-form text entry.
Guidelines for Usage	The LOCATION element is broader than the element IDENTIFIER, which by Dublin Core definition is an unambiguous reference or identifier for a resource within a given context. Best practice in using the element IDENTIFIER is to identify a resource by means of a string or number corresponding to an established or formal identification system. LOCATION, however can be thought of as HOLDINGS, and HOLDINGS should represent the Gatekeeper or Organization or Caretaker that has assumed responsibility for an asset, separate from the responsibilities of a PUBLISHER. The information found in the element LOCATION may contain data about the Holding's Organization, the Holding's Department, and a Holding's Location, whether physically or virtually defined.
Obligation to Use	Optional
Repeatable Element	Apply multiple times, as needed
Type of Data Entry	Text String

Show Me Examples

MPR News Archives

National Public Radio Cultural Programming

WGBH Media Library

Lindemann Historical Archives, Special Collections Department, Vault 235, Shelf 45

WGBH Design