PBCore
Public Broadcasting
Metadata Dictionary Project

Welcome! While you are awaiting the start of "The PBCore Elements," we ask that you please observe the following points:

- Mute your phone during the presentation except when you want to speak.
- Do not place the call on hold.
- Identify yourself when you speak.

Please note that you may download the presentation right now (PowerPoint slides or PDF) at http://www.pbcore.org; click the "PBCore Training" button.

Thank you!

Carl and Ruth Shapiro Family NCAM National Center for Accessible Media

PBCore 102: The PBCore Elements

The PBCore Project at the
Carl and Ruth Shapiro Family National Center
for Accessible Media at WGBH (NCAM)
http:www.pbcore.org
http://ncam.wgbh.org/pbcore

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What to expect from this presentation

- In this session you will learn...
  - where to find the PBCore element dictionary and how to read it
  - what the PBCore elements are, why they are useful and how to use them
  - what elements are mandatory
  - what elements are recommended
  - what elements are optional
  - what an actual PBCore record looks like
  - where to go for more information about PBCore and the elements

What is the PBCore project at NCAM?

- Project objectives:
  - Define, promote and advocate for the use of PBCore
  - Develop effective training materials and creating software tools to support the use of PBCore
  - Identify strategies for PBCore sustainability
- Project timeline: 3/2005-4/2007

What is PBCore?

- ...a metadata dictionary, used to describe many different types of media items;
- ...useful for locating, sharing and exchanging media items;
- ...available for free to anyone, not just public broadcasters.

The PBCore Web Site

- Your one-stop shop for all things PBCore: http://www.pbcore.org
  - user guide
  - list of elements in various representations
    - full documentation, quick index, alphabetical, cheat sheet, etc.
  - listserv sign-up, training info
  - training schedules and materials
  - many other resources (metadata primer, XML schema info, etc.)

What is the PBCore dictionary?

- The PBCore dictionary is comprised of 53 elements, each describing a different aspect of a media item.
- Three sample PBCore elements are:
  1. **title**: the media item's name
  2. **creator**: the person or organization responsible for creating the media item
  3. **publisher**: the person or organization responsible for distributing the media item

PBCore element obligations

- PBCore elements are designated by the following obligations:
  - Mandatory
  - Mandatory if Applicable
  - Recommended
  - Optional
- You do not need to use all 53 elements in a record.

What does it mean to be PBCore compliant?

1. Follow PBCore dictionary elements and rules:
   - ensure the underlying elements have matching meanings, even if their visible labels vary
   - follow the rules for expressing data
   - apply the elements and attributes consistently
   - document variances in implementation

What does it mean to be PBCore compliant?

- If you're going to share, follow the dictionary rules so others can locate your media items.
- If you don't follow the rules, others won't be able to find your resources.
- Tag your resources thoroughly so they can be found by others.

What does it mean to be PBCore compliant?

2. Comply with the PBCore XML XSD (XML Schema Definition) for data sharing.
   - XSD defines how elements and attributes can be represented in a XML document.
   - It describes the format and data type of the XML document.

What does it mean to be PBCore compliant?

- XSD is the rule book for transforming data from an information system into PBCore-compliant structures.
- Transformations will fail if the obligations specified (e.g., PBCore's seven mandatory elements) are ignored.
- If you ignore the XSD, then data cannot be properly exported or imported between information systems.

What does it mean to be PBCore compliant?

- If you're using PBCore to tag media items that you intend to share with the outside world, you must follow the dictionary rules and element obligations.
- If you're using PBCore for internal purposes only and don't plan to share your resources with the outside world, you can apply the dictionary rules as you see fit.

It's up to you to follow the dictionary rules, because...

...there are no PBCore police...

...and there is no PBCore jail.

A close look at the PBCore elements

- Elements are organized into four content classes of thematically-related elements:
  - **pbcoreIntellectualContent**
    - what the media item is
  - **pbcoreIntellectualProperty**
    - how the media item can be used
  - **pbcoreInstantiation**
    - the physical or digital nature of the media item
  - **pbcoreExtensions**
    - custom additions to the dictionary

pbcoreIntellectualContent (16)

identifier M	genre R
identifierSource M	genreAuthorityUsed R
title M	relationType O
titleType R	relationIdentifier O
subject R	coverage O
subjectAuthorityUsed R	coverageType O
description M	audienceLevel O
descriptionType R	audienceRating O

pbcoreIntellectualProperty (7)

- creator R
- creatorRole R
- contributor R
- contributorRole R
- publisher R
- publisherRole R
- rightsSummary R

pbcoreInstantiation (28)

- dateCreated O
- dateIssued O
- formatPhysical M/A
- formatDigital M/A
- formatLocation M
- formatMediaType R
- formatGenerations M/A
- formatStandard R
- formatEncoding R
- formatFileSize R
- formatTimeStart R
- formatDuration M/A
- formatDataRate R
- formatBitDepth R
- formatSamplingRate R
- formatFrameSize R
- formatAspectRatio R
- formatFrameRate R
- formatColors R
- formatTracks O
- formatChannelConfiguration O
- language R
- alternativeModes O
- dateAvailableStart O
- dateAvailableEnd O
- formatIdentifier M
- formatIdentifierSource M
- annotation O

pbcoreExtension (2)

- extension O
- extensionAuthorityUsed O

PBCore in action

- Media Library Online (http://wptmedialibrary.wpt.org/) at Wisconsin PTV
  - a catalog containing much of the media collection held by Wisconsin Public Television
- Based on CWIS (http://scout.wisc.edu/Projects/CWIS/; Collection Workflow Integration System)
  - software to assemble, organize, and share collections of data about resources
  - CWIS can be downloaded at http://scout.wisc.edu/Projects/CWIS/downloads.php

PBCore in action

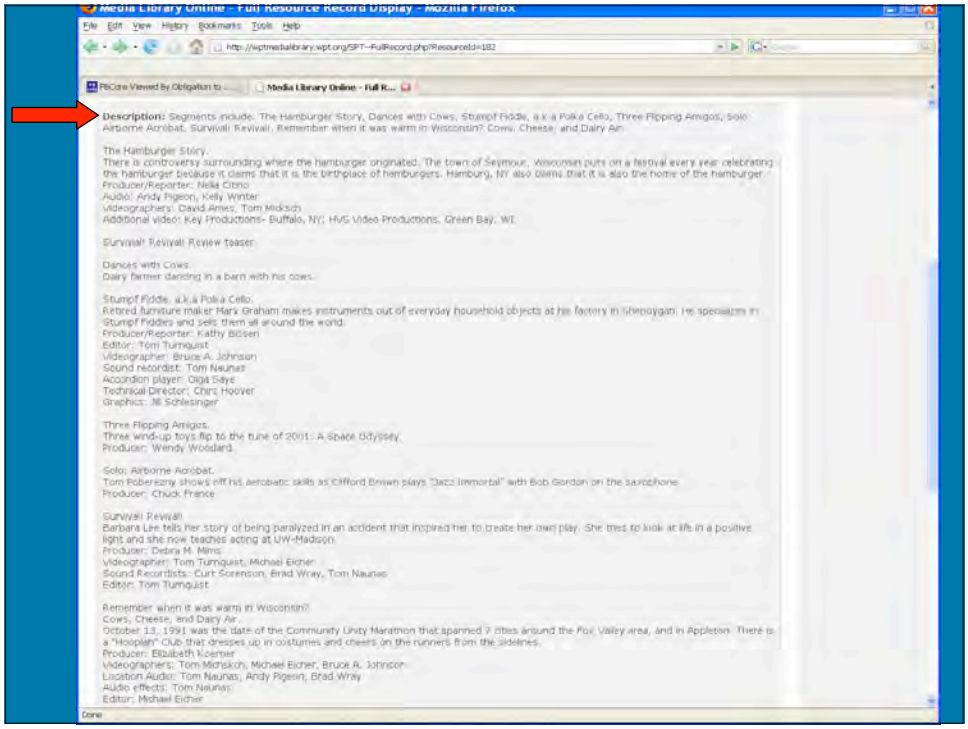
Note: The following slides illustrate a complete record.

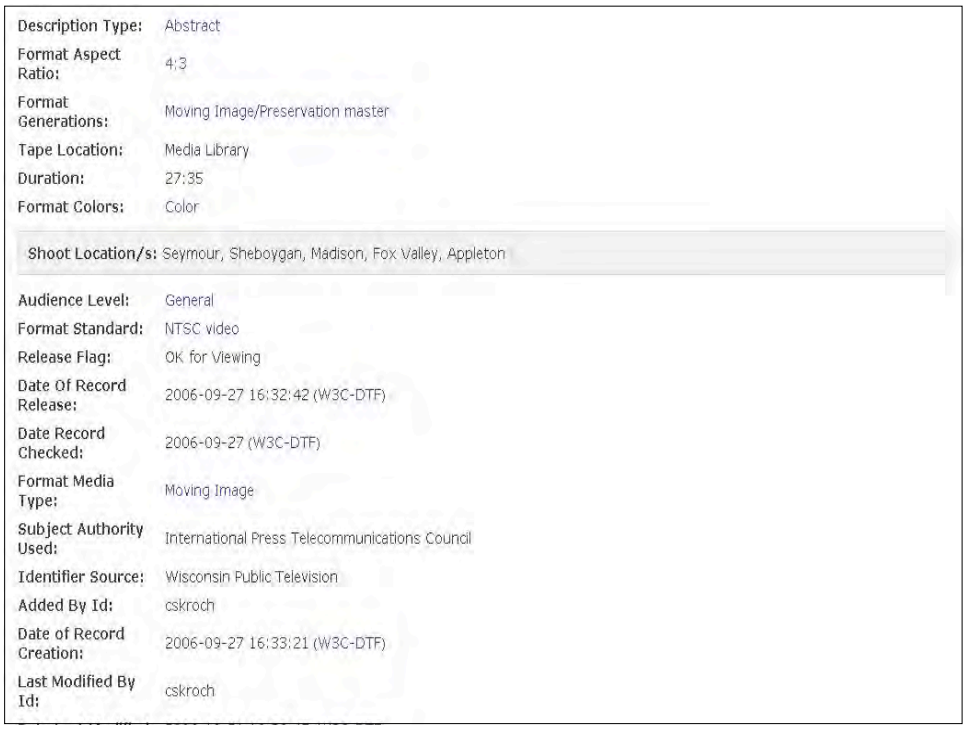
Media Library Online

Home | Browse Resources | Forums | About | Help

Edit This Resource

Tape Number:	OnTV 104.5
Title:	OnTV #104
Title Type:	Series/Program
Program, Series or Collection Title:	OnTV
Format:	VHS
Creator:	Long, Larry//Series Producer
Contributor:	Koerner, Elizabeth//Producer France, Chuck//Producer Woodard, Wendy//Producer Bissen, Kathy//Producer Citino, Nella//Producer Mims, Debra//Producer
Broadcast Date:	1992-01-23
Publisher:	Board of Regents UW//Copyright holder Education Communications Board//Copyright holder Wisconsin Public Television//Presenter
Subject:	other





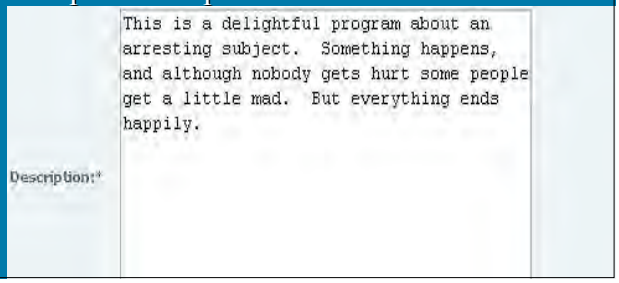
Description Type:	Abstract
Format Aspect Ratio:	4:3
Format Generations:	Moving Image/Preservation master
Tape Location:	Media Library
Duration:	27:35
Format Colors:	Color
Shoot Location/s:	Seymour, Sheboygan, Madison, Fox Valley, Appleton
Audience Level:	General
Format Standard:	NTSC video
Release Flag:	OK for Viewing
Date Of Record Release:	2006-09-27 16:32:42 (W3C-DTF)
Date Record Checked:	2006-09-27 (W3C-DTF)
Format Media Type:	Moving Image
Subject Authority Used:	International Press Telecommunications Council
Identifier Source:	Wisconsin Public Television
Added By Id:	cskroch
Date of Record Creation:	2006-09-27 16:33:21 (W3C-DTF)
Last Modified By Id:	cskroch

PBCore mandatory elements

- title
  - obligation to use: mandatory
  - type of data entry: text string
  - examples:
    - Geography of Utah, The
    - Landscape with Waitress
- title in use:

PBCore mandatory elements

- description
  - obligation to use: mandatory
  - type of data entry: text string
  - examples:
    - Narrated by Fred Flintstone
    - An animated tutorial on School, Parent & Community Involvement in Pupil Development
- description in use:



PBCore mandatory elements

- formatLocation
  - obligation to use: mandatory
  - type of data entry: text string
  - examples:
    - Utah Education Network Licensed PBS Media DAM System; http://www.uen.org/PBS
    - http://ncam.wgbh.org/richmedia/video
- formatLocation in use:

PBCore mandatory-if-applicable elements

- formatGenerations
  - obligation to use: mandatory if applicable
  - type of data entry: text string
  - examples:
    - audio/music
    - static image/contact sheet
    - text/caption file
- formatGenerations in use (via picklist):

PBCore mandatory-if-applicable elements

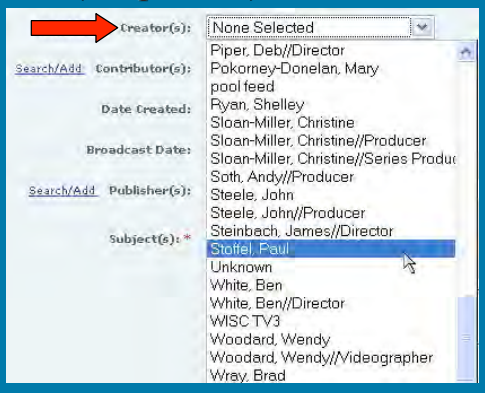
- formatDuration
  - obligation to use: mandatory if applicable (for time-based media items)
  - type of data entry: text string
  - examples:
    - HH:MM:SS
    - HH:MM:SS:FF (SMPTE timecode non-dropframe NTSC)
- formatDuration in use

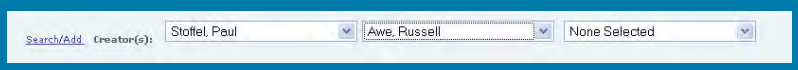
PBCore recommended elements

- creator
  - obligation to use: recommended
  - type of data entry: text string
  - examples:
    - Welles, George Orson
    - University of Utah
    - Minnesota Public Radio

PBCore recommended elements

- creator in use (via picklist):



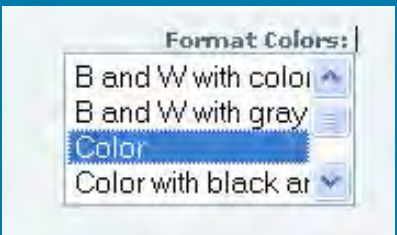


PBCore recommended elements

- formatStandard
  - obligation to use: recommended
  - type of data entry: text string
  - examples:
    - MPEG audio
    - PAL video
  - formatStandard in use (via picklist):

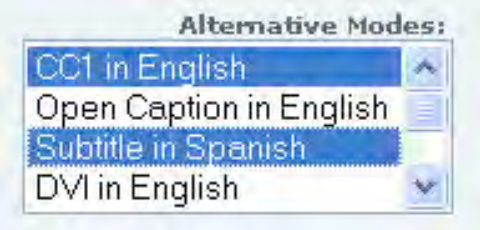
PBCore recommended elements

- formatColors
  - obligation to use: recommended
  - type of data entry: text string
  - examples:
    - Color with B&W sequences
    - Grayscale
- formatColors in use (via picklist):



PBCore optional elements

- alternativeModes
  - obligation to use: optional
  - type of data entry: text string
  - examples:
    - Transcript
    - Dubbed
  - alternativeModes in use (via picklist):



PBCore optional elements

- dateCreated
  - obligation to use: optional
  - type of data entry: text string
  - examples:
    - YYYY
    - YYYY-MM-DD
    - YYYY-MM-DDThh:mmTZD (e.g., 1997-07-16T19:20+01:00)
  - dateCreated in use:

PBCore metadata examples

- The PBCore Web site will soon host many examples of complete records at http://www.pbcore.org/PBCore/PBCore_SampleRecords.html

Part III
Summary and Resources

PBCore listserv

- Be part of a community of practice where PBCore adopters share information and resources.
- To **join :**
  - Go to the PBCore Web site (http://www.pbcore.org) and click on the "Join Listserv" button.

Upcoming PBCore training sessions

No.	Topic	Description	Live WebEx Time	On-Demand Availability
I	*PBCore 101: An Overview*	An introduction to the nature of metadata and the PBCore.	Wednesday 2007-01-31/2:00pm EST Repeated Thursday 2007-02-01/2:00pm EST	**PowerPoint-zip PDF QuickTime Video-zip QuickTime/iPod Video-zip MP3 audio**
II	*PBCore 102: The Elements*	A more detailed look at the structure of PBCore, what each of the elements are, and how to use them to describe media objects of all kinds.	Wednesday 2007-02-28/2:00pm EST Repeated Thursday 2007-03-01/2:00pm EST	PowerPoint-zip PDF QuickTime Video-zip QuickTime/iPod Video-zip MP3 audio
III	*The PBCore XML Schema*	A general discussion of what an XML Schema is, and a look at how the PBCore XML Schema can be used to implement the PBCore metadata dictionary within information and cataloging systems. Also explains how important the XML Schema is for sharing metadata and interoperability.	TBA	PowerPoint-zip PDF QuickTime Video-zip QuickTime/iPod Video-zip MP3 audio
IV	*Cataloging Tools for PBCore*	A detailed discussion of tools that use PBCore. The tools facilitate the markup of descriptions for media objects and have data export capabilities for sharing and interoperability.	TBA	PowerPoint-zip PDF QuickTime Video-zip QuickTime/iPod Video-zip MP3 audio

- **Session III** will describe the PBCore XML schema and how it can be used to create a PBCore cataloging tool.
- **Session IV** will present the PBCore Project's cataloging application and illustrate its use.

Resources

General

- PBCore.org (http://www.pbcore.org/)
- The PBCore listserv (http://www.pbcore.org)
- The PBCore project at NCAM (http://ncam.wgbh.org/pbcore)
- The PBCore XML Schema (draft; http://www.pbcore.org; click on "Resources and Links" button)

Resources

Metadata

- PBCore metadata resources (http://www.pbcore.org; click on "Resources and Links" button)
- "The Case for Shared Metadata Standards" (http://www.current.org/tech/tech0209metadata.html)
- A Primer for Understanding PBCore (http://www.utah.edu/cpbmetadata/PBCore/PBCorePrimer.html)
- PBCore update (http://www.pbcore.org; click on "User Guide" button)

Resources

Metadata search tools

- Wisconsin Public TV's Media Library Online (http://wptmedialibrary.wpt.org/), a PBCore implementation through CWIS (http://scout.wisc.edu/Projects/CWIS/)
- NETA/Utah Education Network Media Exchange http://www.uen.org/media_exchange
- RELOAD (http://www.reload.ac.uk/)

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