

Millennium Media Guidelines

OVERVIEW

Millennium Media is the Innovative Interfaces media management application that enables access to a variety of digitized media files selected from the print resources found within the library's bibliographic database. These media files can include images (i.e., photographs, maps, and other graphic materials), text (i.e., tables-of-contents, documents, and other archival materials), sound/audio files, movies, animation, PowerPoint slides, spreadsheet files, webpages, etc., and can be saved in various file types: *BMP, GIF, JPEG, PNG, TIFF* for images; *DOC, PDF, PPT, TXT* for text; *MP3, WAV* for sound; *AVI, MOV* for movies; *MPEG* for animation. Once digitized, these media files can be fully integrated into the library's OPAC and displayed as part of the bibliographic record when a resource is searched and retrieved in the library's catalog.

The Millennium Media Management application can be accessed via the Millennium Cataloging, Circulation, Acquisitions, and Serials modules. These guidelines can be applied using any of the above modules. To date, the Libraries have been using Millennium Media primarily to add table-of-contents text files and book cover images to their corresponding bibliographic records. For this reason, the following guidelines will focus specifically on the steps required to create, preserve and attach *image* and *text* files (known as *media sets*). For ease of reference, the processing of image files and text files (i.e., .txt) for text indexing will be covered in two separate sections beginning on Page 4 under Attaching Media Files in MillMedia.

PART 1: TECHNICAL CONSIDERATIONS

I. Scanning

The University Libraries adheres to national digitization standards, such as the National Archives and Records Administration's *Technical Guidelines for Digitizing Archival Materials for Electronic Access: Creation of Production Master Files - Raster Images* (<http://www.archives.gov/research/arc/digitizing-archival-materials.pdf>) or the Collaborative Digitization Program's *Western States Digital Imaging Best Practices* (http://www.cdphheritage.org/digital/scanning/documents/WSDIBP_v1.pdf). Every project will require different scanning settings. However, for the image and text files intended for use in Millennium Media, the *minimum* resolution should be 300 dpi. Use the following guidelines to determine the appropriate bit depth:

Text	bitonal (B&W)
Images	<ul style="list-style-type: none">▪ 16 bit grayscale (black & white)▪ 24 bit color (color)

In the scanning process, three versions of a file are created. The *master* is the original, high quality file used for archival purposes. Two derivative files are generated from the master: an *access* and a *thumbnail* image. The access image is a lower resolution than the master but is large enough to provide sufficient detail for viewing. It is intended for quick loading on a Web page. The thumbnail is a small, low resolution image intended for quick identification and is usually linked to a larger version of the image.

	File Type	Size
Master (Image)	TIFF	100% of original
Access (Image)	JPEG	600 pixels on the long side
Thumbnail (Image)	JPEG	150 pixels on the long side
Text	TXT	

II. Optical Character Recognition (OCR)

The scanning process can create an image of text. This image alone cannot be searched or edited like a Word document, however, Optical Character Recognition (OCR) software can be used to convert the image file into a text file. If you intend to use Millennium Media’s Document Indexing feature, you must use OCR software. OCR software does not always accurately capture the text. For this reason, most OCR software programs have a “spell-check” feature that allows you to correct any mistakes rendered in the conversion process. Using this feature will improve the accuracy of the text, but it will add time to the process. These guidelines recommend using this feature to check for mistakes on a test sample of the text file. Based on the results of the test sample, the project manager should use his/her discretion to determine whether it is worth the time to proofread and correct the entire text.

The text may contain extraneous information such as chapter or page numbers in a table of contents. Since this information will not be viewed by users and does not run the risk of polluting the Keyword search, it is not necessary to delete it from the file. Likewise, formatting is not important since Innovative’s Document Indexing ignores any formatting and it will never be seen by the user. Once the OCRing and proofreading process have been completed, save the file as a “.txt” file.

III. File Naming Convention

Filenames are composed of bib record numbers with three possible suffix codes:

- 1) The base of the filename is made up of the “b” record number which identifies the bibliographic record in Millennium (e.g., “b11099057”).
- 2) If an item contains multiple parts, use one of the following codes to designate the part and append a number to indicate a sequence—beginning with the number 1.

p = page, **v** = volume, **s** = sheet, **fr** = front cover, **bk** = back cover, **sp** = spine

NOTE: In order to maintain consistency in the codes, please contact the Digital Projects Advisory Group to create additional codes, as required.

- 3) If the image is a thumbnail, add the code “th”. No specific codes are required for master and access images since they can be differentiated by the file type extension.

th = *thumbnail*

NOTE: Master and access files may have the same filename but will be differentiated by their file type extension (i.e., master = .tiff; access = .jpg).

The following examples represent the filenames assigned to the thumbnail images of a book’s front cover, back cover and spine :

b11099057frth.jpg

b11099057bkth.jpg

b11099057spth.jpg

IV. Storing the Files

All files should be saved on the **Libimage** server under the **MillMedia** folder. Within the MillMedia folder, choose your departmental folder. If it does not exist, create a folder for your department. Within the departmental folder, create a project folder. Within the project folder, create four subfolders: **Text**, **Master**, **Access**, and **Thumbnail**. Store all files in the appropriate subfolder. Folder names MUST NOT contain any spaces. “Special Collections” (*with a space*) is not an acceptable folder name but “SpecialCollections” is acceptable.

The following examples show the file path to be used when saving a file and the URL string to be used when entering the URL:

- 1) A typical file path on the Libimage server:

Libimage\MillMedia\SpecialCollections\Tippit\Text\b1109057.txt

- 2) Enter the corresponding URL in Millennium Media:

http://ucblibraries.colorado.edu/millmediavirt/ SpecialCollections/Tippit/Text/b11099057.txt

NOTE: This actually represents: http://ucblibraries.colorado.edu/millmediavirt/ + departmentfolder/ + projectfolder/ + subfolder/ + filename + file type extension.

The URL string requires “millmediavirt” which does not appear in the file path but, nonetheless, refers to a virtual directory required to view images on the Web.

PART 2: ATTACHING MEDIA FILES IN MILLMEDIA

I. Attaching Image Files

You will need to open the following resources:	<i>(accessed from)</i>
✓ Relevant Millennium Module	<i>Start Menu—Programs</i>
✓ Web OPAC (<i>Chinook</i>)	<i>Web Browser</i>
✓ Relevant Folders in the MillMedia directory	<i>My Computer</i>
✓ Microsoft Word	<i>Start Menu—Programs</i>

Preliminaries:

- ✓ Make sure you have the appropriate authorization to access Millennium Media
- ✓ Retrieve the bib record to which you wish to attach the media file(s) (*Millennium*)
- ✓ Locate the access & thumbnail (.jpg) files you will be attaching (*MillMedia directory*)
(*Suggestion: Print a screenshot [Alt + PrintScreen] of these filenames to keep track of your work*)
- ✓ Open the Web OPAC so you can check the results of your work (*Web Browser*)
- ✓ Create a Word document with the URLs for cutting and pasting purposes

1) Click on the **Media** button from the toolbar.

The number in parentheses indicates how many media sets are attached to the record.

2) Click on the “Add Media Set” box to open the Media Management workflow.

3) Enter a title in the “New Media Set” box. A Media folder will appear in the **Media Manager** pane showing the newly assigned title. (For consistency, begin the title with “View ...” since this is the caption that will display below the thumbnail image in the OPAC.) Multipart items should include the part and part number (e.g., “View Cover (front),” “View Cover (back)” or “View Table of Contents (page 1)”).

4) Uncheck the “Use Image Viewer” box.

5) Select the “Link URL” option. The Media Management workflow provides four options for attaching media files to a bib record. You should always use the “Link URL” option due to technical considerations.

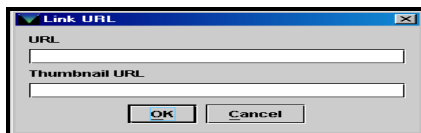
6) A dialog box will appear, prompting you to enter a URL and a thumbnail URL. In most cases, enter the URL for the access image in the “URL” text box and enter the URL for the thumbnail image in the “Thumbnail URL” text box. (See step 6a, below, for more information.)

NOTE: There are two scenarios in which you will follow different procedures:

- ✓ when attaching Tables-of-Contents, follow step 6b;
- ✓ when attaching more than 5 images (or media sets) to a bib record, follow step 6c.

a) **Access image + Thumbnail image**

Enter the appropriate URL for the specific files you are attaching in the text box:



Access URL:

<http://ucblibraries.colorado.edu/millmediavirt/SpecialCollections/PubBindings/Access/b26184084fr.jpg>

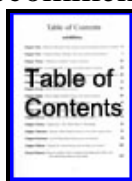
Thumbnail URL:

<http://ucblibraries.colorado.edu/millmediavirt/SpecialCollections/PubBindings/Thumbnails/b26184084frth.jpg>

b) **Tables-of-Contents**

With images of Tables-of-Contents, it is not necessary to create a separate thumbnail image of the text since it will not be legible when displayed in the OPAC.

The use of a generic TOC icon is recommended:



(TOC Icon)

Access URL:

<http://ucblibraries.colorado.edu/millmediavirt/SpecialCollections/WomenPoets/Access/b36130552p1.jpg>

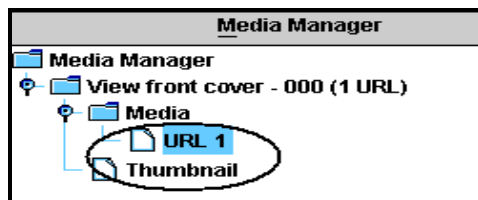
URL for TOC Icon: <http://ucblibraries.colorado.edu/millmediavirt/tocicon.jpg>

c) **Records with More than Five Media Sets**

Display problems in the OPAC will occur when more than five media sets are attached to one bib record. In this scenario, create a webpage (using the University Libraries' template) which contains hyperlinks to each access image. Enter the URL for the webpage in the "URL" text box. Create a thumbnail from the first of the access images and enter its URL in the "Thumbnail URL" text box.

See Part 2, Section III (Creating a Webpage...) for more information.

7) Click "OK" to add the URLs. The added files will appear under the Media folder.



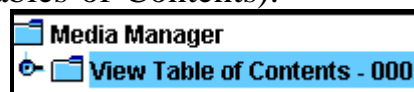
8) Click on the "Save" button when linking is complete.


- 9) Search for the bib record in the OPAC to verify that the image file has been added.
- 10) To add more media sets when there are multiple images involved:
 - a) Go to **Tools – Media – Add Media Set**
 - b) Repeat Ss 2-9. (Each additional image file represents a separate media set.)
- 11) Click on the “Close” button when finished.

II. Attaching Text for Indexing

Attaching the pure text—or .txt file(s)—to the media set will allow keyword searching of text which has been captured as an image file (e.g., Tables-of-Contents).

- 1) Right click on the “View Table of Contents” folder:



- 2) Select “Attachment” and “New” from the menus that pop up.
- 3) A new icon will appear under the Media folder.  Simultaneously, a blank pane will open up into which the .txt file(s) will be pasted.
- 4) Locate the .txt file(s) for the bib record in the MillMedia directory.
- 5) Copy and paste the .txt file into the blank pane of the workflow. With multipage items, additional .txt files must be pasted directly after each other in the same pane of the workflow.
- 6) Click on the “Save” button when pasting is complete.
- 7) Click on the “Close” button when finished.
- 8) Indexed text can be searched by using **m:** in the Keyword index of the OPAC.

III. Creating a Webpage for Bib Records Containing More than Five Media Sets

Attaching more than five media sets to a bib record results in an awkward display in the online catalog. It is recommended that you create a webpage that links to the image files.

NOTE: If you do not have the skills or the software to create a webpage, contact your department’s webmaster or the Web Services team in the Systems Department: Rick Losoff (rick.losoff@colorado.edu) or John Dziadecki (john.dziadecki@colorado.edu).

1) To create a webpage with hyperlinks to each access image, you may use the following code as an example:

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1">
<title>Poems on various subjects: Table of Contents <!--Enter a title for the webpage -->
</head>

<body>
<h3 align="center">Poems on Various Subjects </h3>
<h4 align="center">Table of Contents </h4>

<p><a href=" http://ucblibraries.colorado.edu/millmediavirt/ SpecialCollections/WPRP/Access/b11099057p1.jpg">
View Table of Contents (page 1)</a></p>

<p><a href=" http://ucblibraries.colorado.edu/millmediavirt/ SpecialCollections/WPRP/Access/b11099057p2.jpg">
View Table of Contents (page 2)</a></p>

<p><a href=" http://ucblibraries.colorado.edu/millmediavirt/ SpecialCollections/WPRP/Access/b11099057p3.jpg">
View Table of Contents (page 3)</a></p>

<p><a href=" http://ucblibraries.colorado.edu/millmediavirt/ SpecialCollections/WPRP/Access/b11099057p4.jpg">
View Table of Contents (page 4)</a></p>

<p><a href=" http://ucblibraries.colorado.edu/millmediavirt/ SpecialCollections/WPRP/Access/b11099057p5.jpg">
View Table of Contents (page 5)</a></p>

</body>
</html>
```

2) Save the web page:

- a) Create a subfolder named **Web** within the project folder. See Part 1, Section IV (Storing Files) for more information.
- b. Name the file after the bib record number and give it an *.htm* extension.
- c. Save the *.htm* file within the Web folder.

3) The URL for the webpage will follow this convention:

`http://ucblibraries.colorado.edu/millmediavirt/ + departmentfolder/ + projectfolder/ + Web/
+ filename.htm`

`http://ucblibraries.colorado.edu/millmediavirt/SpecialCollections/Tippit/Web/b11099057.htm`

Use this URL in the URL text box to complete step 6c under Part 2, Section I (Records with More than Five Media Sets).

4) Apply the Libraries' Web template to the page for a consistent look and navigation features.

5) If you have Dreamweaver:

- a) Open the *.htm* file in Dreamweaver.
- b) Under the Modify menu option, choose "Templates" → "Apply Template to Page."
- c) Choose the Libraries' template, *nosidenav.dwt*, and click "Apply."
- d) Save the file.

NOTE: If you do not have Dreamweaver, contact your department's webmaster or the Web Services team in the Systems Department: Rick Losoff (rick.losoff@colorado.edu) or John Dziadecki (john.dziadecki@colorado.edu) for assistance with this step.

PART 3: THINGS TO NOTE

- ✓ Copyright and other restricted items cannot be easily restricted.
- ✓ As many as 127 media files may be added to one bib record.
- ✓ While multiple media files may be added to a bib record, only one text file can be added.
- ✓ Each media file is stored as a 962 MARC tag in the bib record. (*see sample record below*)

```
040    DLC|cDLC
041 1   engfre
049    CODA
090    PQ1170.E6|bM6
100 1   Mowrer, Paul Scott, |d1887-
245 12  A choice of French poems; |btransmutations into English
260    Francetown, N.H., |bGolden Quill Press|c[1969]
300    79 p. |c21 cm
590    @ Norlin [c.1]
650 0   French poetry|xTranslations into English
945    |iU183007563342|aPQ1170.E6|bM6|LNORLIN|mSTACKS
(962) 000:000:URL:b1109905:023899:0:0:0:0:0|tView Table of
      Contents|vn|uhttp://ucblibraries.colorado.edu/frenchtoc/
      b11099057.jpg|ehttp://ucblibraries.colorado.edu/frenchtoc/
      thumbnails/b11099057th.jpg
(962) 000:000:URL:b1109905:023900:0:0:0:0:0|tView Table of
      Contents p2|vn|uhttp://ucblibraries.colorado.edu/frenchtoc
      /b11099057p2.jpg|ehttp://ucblibraries.colorado.edu/
      frenchtoc/thumbnails/b11099057p2th.jpg
```

This record contains a two-page Table of Contents.

If you have a project idea that involves Millennium Media, please send a project description to Digital Projects Advisory Group and Cataloging and Metadata Services, using the following form: <http://libnet.colorado.edu/hl/DigLibSurvey/survey.cfm>