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# Batch Uploading to ContentDM with the Help of MS Access

Joanne M. Riley

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**BATCH UPLOADING WITH THE HELP  
OF MS ACCESS**

*Using CONTENTdm: an Amigos Online Conference*  
February 12, 2015  
Presenter: Joanne Riley  
University Archivist, UMass Boston

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Goal: Upload multiple photos and related metadata into our online repository with minimum effort and maximum reliability

Image Metadata

ID	File Name	Original File Name	Original File Size	Original File Type	Original File Date	Original File Location	Original File Description	Original File Author	Original File Copyright	Original File License	Original File Access Rights	Original File Status
1	10000001.jpg	10000001.jpg	10000001.jpg	10000001.jpg	10000001.jpg	10000001.jpg	10000001.jpg	10000001.jpg	10000001.jpg	10000001.jpg	10000001.jpg	10000001.jpg
2	10000002.jpg	10000002.jpg	10000002.jpg	10000002.jpg	10000002.jpg	10000002.jpg	10000002.jpg	10000002.jpg	10000002.jpg	10000002.jpg	10000002.jpg	10000002.jpg
3	10000003.jpg	10000003.jpg	10000003.jpg	10000003.jpg	10000003.jpg	10000003.jpg	10000003.jpg	10000003.jpg	10000003.jpg	10000003.jpg	10000003.jpg	10000003.jpg
4	10000004.jpg	10000004.jpg	10000004.jpg	10000004.jpg	10000004.jpg	10000004.jpg	10000004.jpg	10000004.jpg	10000004.jpg	10000004.jpg	10000004.jpg	10000004.jpg
5	10000005.jpg	10000005.jpg	10000005.jpg	10000005.jpg	10000005.jpg	10000005.jpg	10000005.jpg	10000005.jpg	10000005.jpg	10000005.jpg	10000005.jpg	10000005.jpg
6	10000006.jpg	10000006.jpg	10000006.jpg	10000006.jpg	10000006.jpg	10000006.jpg	10000006.jpg	10000006.jpg	10000006.jpg	10000006.jpg	10000006.jpg	10000006.jpg
7	10000007.jpg	10000007.jpg	10000007.jpg	10000007.jpg	10000007.jpg	10000007.jpg	10000007.jpg	10000007.jpg	10000007.jpg	10000007.jpg	10000007.jpg	10000007.jpg
8	10000008.jpg	10000008.jpg	10000008.jpg	10000008.jpg	10000008.jpg	10000008.jpg	10000008.jpg	10000008.jpg	10000008.jpg	10000008.jpg	10000008.jpg	10000008.jpg
9	10000009.jpg	10000009.jpg	10000009.jpg	10000009.jpg	10000009.jpg	10000009.jpg	10000009.jpg	10000009.jpg	10000009.jpg	10000009.jpg	10000009.jpg	10000009.jpg
10	10000010.jpg	10000010.jpg	10000010.jpg	10000010.jpg	10000010.jpg	10000010.jpg	10000010.jpg	10000010.jpg	10000010.jpg	10000010.jpg	10000010.jpg	10000010.jpg

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## A few definitions... and a poll...

- **ContentDM - (CDM)**: a commercially available digital asset management system (DAM) primarily used by libraries and archives. Supports the upload, description, management and access of digital collections. *(source: Wikipedia)*
- **The Project Client**: A Windows-based, digital collection builder where data and digital items can be prepared in large batches. Runs on the user's desktop and uploads items and metadata to CDM collections.
- **Microsoft Access**: database management software. The main components of a database are **tables**, forms, **queries**, reports.

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## The fields in our Sample CDM Collection

1. Title
2. Description
3. People
4. Date of Original
5. Decade
6. Type
7. Identifier
8. Rights & Usage

Field name	DC map	Data type	Large	Search	Hide	Required	Vocab
1 Title	Title	Text	No	Yes	No	Yes	No
2 Description	Description	Text	Yes	Yes	No	No	No
3 People	Subject	Text	No	Yes	No	No	Yes-shared
4 Date of Original	Date	Date	No	Yes	No	No	No
5 Decade	Coverage-Temporal	Text	No	Yes	No	No	Yes-shared
6 Type	Type	Text	No	Yes	Yes	No	Yes
7 Identifier	Identifier	Text	No	Yes	No	Yes	No
8 Rights & Usage	Rights	Text	No	No	No	Yes	No

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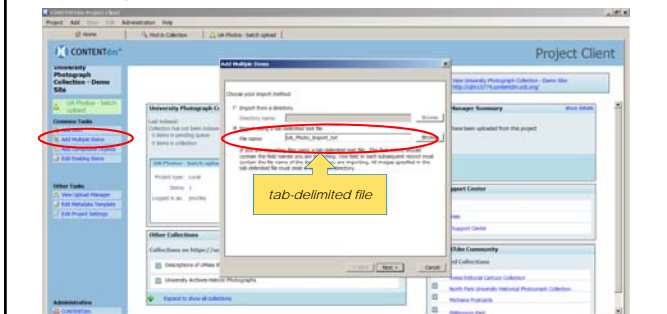
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## The Project Client's "Add Multiple Items" works well IF you have a well-formed *tab-delimited file*




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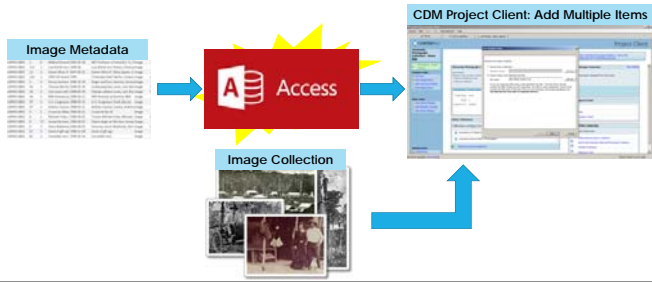
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At UMB, we use MS Access to create reliable tab-delimited text files for the CDM Project Client



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### Steps

1. Create a simple **table** in MS Access
2. Create a **Query** in MS Access to auto-generate additional fields for CDM
3. Copy and paste the query results into a **text file** and save file.
4. Use that text file as the "**tab delimited text file**" during the batch upload process in the Project Client.



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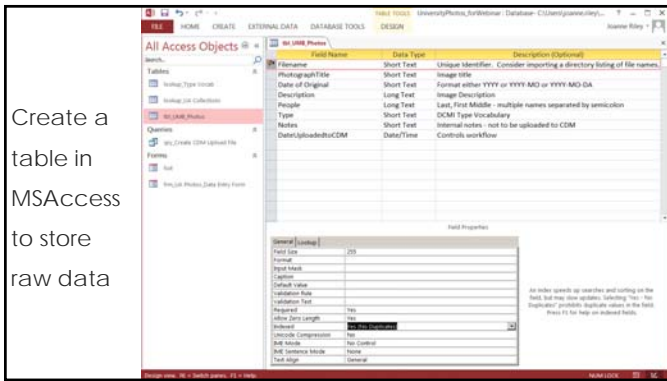
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Create a table in MS Access to store raw data

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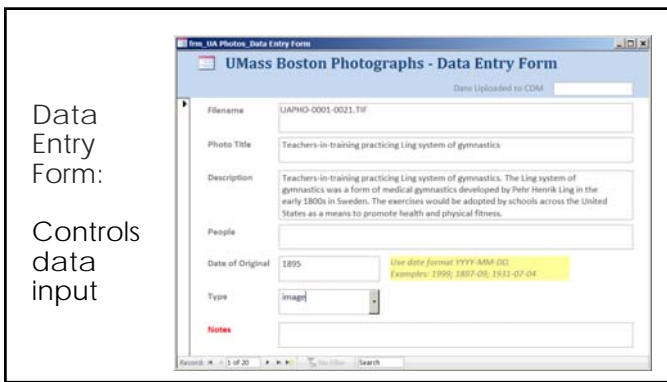
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Data Entry Form:  
Controls data input

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### Steps

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Results of a Query that combines table data + calculated fields:

Data from the table(s):					Calculated Fields			
ItemID	PhotographTitle	Description	People	Date of Original	Type	Decade	ItemIdentifier	Rights and U..
UAPHO-0001-0029.TIF	Boston Normal School exterior	The exterior of the Boston Normal School's		1911	Image	1910-1919	UASC-UAPHO-0001-0029	<a href="http://blogs.u..">http://blogs.u..</a>
UAPHO-0001-0032.TIF	Miss Leahy, faculty member of Teachers College of the City of Boston	Miss Leahy, faculty member of Teachers College of the City of Boston	Leahy, Anne	1941	Image	1940-1949	UASC-UAPHO-0001-0032	<a href="http://blogs.u..">http://blogs.u..</a>
UAPHO-0001-0046.TIF	Grant Drake, music faculty at Teachers College of the City of Boston	Grant Drake, music faculty at Teachers College of the City of Boston	Drake, Grant	1931	Image	1930-1939	UASC-UAPHO-0001-0046	<a href="http://blogs.u..">http://blogs.u..</a>
UAPHO-0001-0226.TIF	Aerial view of the University of Massachusetts Boston campus	Aerial view of the University of Massachusetts Boston campus		1967	Image	1960-1969	UASC-UAPHO-0001-0226	<a href="http://blogs.u..">http://blogs.u..</a>
UAPHO-0002-0002.TIF	Donna Sumner receiving a ribbon from Chancellor Sherry	Singer and Doncaster native Donna Sumner, receiving a ribbon from Chancellor Sherry	Sumner, Donna	1996-10-16	Image	1990-1999	UASC-UAPHO-0002-0002	<a href="http://blogs.u..">http://blogs.u..</a>
UAPHO-0002-0001.TIF	Maxine Hong Kingston and Brenda Cherry at the 1991 Commencement dinner at the University of Massachusetts Boston	Author and UC Berkeley professor Maxine Hong Kingston, and Brenda Cherry at the 1991 Commencement dinner at the University of Massachusetts Boston	Kingston, Maxine	1991-06-01	Image	1990-1999	UASC-UAPHO-0002-0001	<a href="http://blogs.u..">http://blogs.u..</a>
UAPHO-0002-0107.TIF	Judith Jamerson speaking at the 1999 Commencement dinner at the University of Massachusetts Boston	Choreographer and dancer Judith Jamerson, speaking at the 1999 Commencement dinner at the University of Massachusetts Boston	Jamerson, Judith	1999-06-05	Image	1990-1999	UASC-UAPHO-0002-0107	<a href="http://blogs.u..">http://blogs.u..</a>
UAPHO-0001-0346.TIF	Student reading in front of a display in Joseph P. Healey Library	Student reading in front of a display in Joseph P. Healey Library		1978	Image	1970-1979	UASC-UAPHO-0001-0346	<a href="http://blogs.u..">http://blogs.u..</a>
UAPHO-0001-0483.TIF	"Hand" by Jean Tock on display in the Joseph P. Healey Library	"Hand" (13" height), plaster, vermiculture and plaster on display in the Joseph P. Healey Library		1982-04-11	Image	1980-1989	UASC-UAPHO-0001-0483	<a href="http://blogs.u..">http://blogs.u..</a>
UAPHO-0001-0174.TIF	Aerial view of the Call Pasture Pumping Station on Columbia Island	Aerial view of the Call Pasture Pumping Station on Columbia Island		1964	Image	1960-1969	UASC-UAPHO-0001-0174	<a href="http://blogs.u..">http://blogs.u..</a>
UAPHO-0001-0175.TIF	Aerial view of the Call Pasture Pumping Station on Columbia Island	Aerial view of the Call Pasture Pumping Station on Columbia Island		1964	Image	1960-1969	UASC-UAPHO-0001-0175	<a href="http://blogs.u..">http://blogs.u..</a>
UAPHO-0002-0040.TIF	Author David Lewis, Carl McCullough and Olympic medalist Arthur Gantry	Author David Lewis, Carl McCullough, and Olympic medalist Arthur Gantry	Lewis, Carl; McCullough, Arthur W.	1998-05-31	Image	1990-1999	UASC-UAPHO-0002-0040	<a href="http://blogs.u..">http://blogs.u..</a>
UAPHO-0002-0047.TIF	Author David Lewis, Carl McCullough and Olympic medalist Arthur Gantry	Author David Lewis, Carl McCullough, and Olympic medalist Arthur Gantry	Lewis, Carl; McCullough, Arthur W.	1999-12-08	Image	1990-1999	UASC-UAPHO-0002-0047	<a href="http://blogs.u..">http://blogs.u..</a>



Results of a Query that combines table data + calculated fields:

**CONTENTdm Administration**

admin home search collections items

graphic holds website reports export view collection help

Current collection: University Photograph Collection - Demo Site

**Metadata fields**

View and configure collection and administrative fields.

**Collection field properties**

View, add, edit and delete fields. Enable full text searching and controlled vocabulary. After you have added, or edited the collection to update changes.

Field name	DC map	Data type	Large	Search	Hide	Required	Vocab
1 Title	Title	Text	No	Yes	No	Yes	No
2 Description	Description	Text	Yes	Yes	No	No	No
3 People	Subject	Text	No	Yes	No	No	Yes-shared
4 Date of Original	Date	Date	No	Yes	No	No	No
5 Decade	Coverage/Temporal	Text	No	Yes	No	No	Yes-shared
6 Type	Type	Text	No	Yes	Yes	No	Yes
7 Identifier	Identifier	Text	No	Yes	No	Yes	No
8 Rights & Usage	Rights	Text	No	No	No	Yes	No

UAPHO-0002-0047.TIF Judge W. Arthur Gantry (the...  
Gantry, W. 1999-12-08 Image 1990-1999 UASC-UAPHO-0002-0047



Some fields in our ContentDM Collection that could be auto-generated by MS Access:

- **Decade** (generate from the item date)
- **Identifier** (generate from the filename)
- **Rights and Reproduction URL** (use same text each time)

**CONTENTdm Administration**

admin home search collections items

graphic holds website reports export view collection help

Current collection: University Photograph Collection - Demo Site

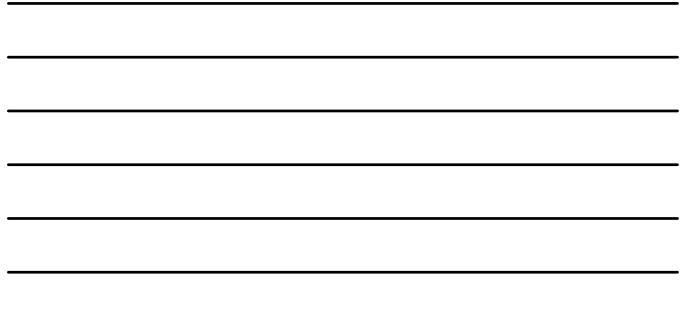
**Metadata fields**

View and configure collection and administrative fields.

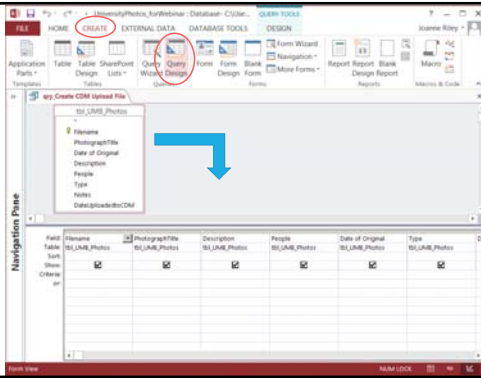
**Collection field properties**

View, add, edit and delete fields. Enable full text searching and controlled vocabulary. After you have added, or edited the collection to update changes.

Field name	DC map	Data type	Large	Search	Hide	Required	Vocab
1 Title	Title	Text	No	Yes	No	Yes	No
2 Description	Description	Text	Yes	Yes	No	No	No
3 People	Subject	Text	No	Yes	No	No	Yes-shared
4 Date of Original	Date	Date	No	Yes	No	No	No
5 Decade	Coverage/Temporal	Text	No	Yes	No	No	Yes-shared
6 Type	Type	Text	No	Yes	Yes	No	Yes
7 Identifier	Identifier	Text	No	Yes	No	Yes	No
8 Rights & Usage	Rights	Text	No	No	No	Yes	No



Start by adding to the Query grid all of the table fields that you want to import into CDM




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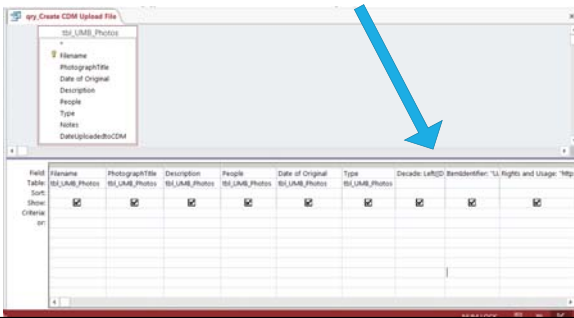
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Next add any desired Calculated Fields to the Query grid, to auto-create some fields to go into CDM.




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Calculating Decade from Date:

Date of Original: 1994

Decade: 1990 -1999

*What Would Your Brain Do?*




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Calculating Decade from Date:

Date of Original: 1994

Decade: 1990-1999

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Calculating Decade from Date:

Date of Original: 1994

Decade: 1990-1999

Take the left 3 numbers of the year  
add a "0" and a "-"  
Take the left 3 numbers of the year  
add a "9"

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### MS Access Expressions

- Enclose fieldnames in square brackets [ ]
- String together text and field contents with an ampersand &
- Enclose literal text in quotes " "
- Use *Functions* to operate on the contents of a field

Example: [LASTNAME] & ", " & [FIRSTNAME]  
Smith, Mary  
Jones, Jack  
Carini, Stella ...

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Calculating Decade from Date:

Date of Original: 1994

Decade: 1990-1999

Take the *left 3 numbers of the year*  
 add a "0" and a " -"  
 Take the *left 3 numbers of the year*  
 add a "9"

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MS Access functions – something for everyone!

**MS ACCESS: FUNCTIONS - LISTED BY CATEGORY**

For easy reference, we have provided a list of all Microsoft Access functions. The list of Access functions is sorted into the type of function based on categories such as: string, numeric/mathematical, datetime, advanced logical, domain aggregate, data type conversion, group by, and field/object functions.

It is important to note that there are 2 type of functions in Access - functions used in SQL/Queries and functions used in VBA code. Some functions can be used as both, but some can not.

Below is the list of MS/Access functions, sorted by category (ie: type of function).

**STRING FUNCTIONS**

Asc	LCase	RTriM
Chr	Left	Space
Concat with &	Len	Str
CutDe	LTrim	StrComp
Format (with Strings)	Mid	StrConv
Instr	Replace	Trim
InstrRev	Right	UCase

**NUMERIC / MATHEMATICAL FUNCTIONS**

Abs	Fix	Round
Atn	Format (with Numbers)	Sign
Avg	Int	Sum
Cos	Max	Val
Count	Min	

Source: <http://www.techonthenet.com/access/functions/>

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**DESCRIPTION**

The Microsoft Access **Left** function extracts a substring from a string, starting from the left-most character.

**SYNTAX**

The syntax for the Microsoft Access **Left** function is:

```
Left ( text, number_of_characters )
```

**Parameters or Arguments**

*Text* is the string that you wish to extract from.

*Number\_of\_characters* indicates the number of characters that you wish to extract starting from the left-most character.

Source: <http://www.techonthenet.com/access/functions/>

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Calculating Decade from Year field in MS Access

*Left(text, number-of-characters)*

Left([Date of Original],3)            199  
 &"0-"                                    1990-  
 & Left([Date of Original],3)        1990-199  
 &"9"                                        1990-1999

**Remember:** String together text and field contents with &

Enclose fieldnames in [ ]

Enclose literal text in " "

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Calculating Decade from Year field in MS Access

Left([Date of Original],3) &"0-"&Left([Date of Original],3)&"9"

DATE OF ORIGINAL	DECADE: Left([Date of Original],3) &"0-"&Left([Date of Original],3)&"9"
1994-01-25	1990 - 1999
2004	2000 - 2009
1877-12-15	1870 - 1879
1817-11-06	1810 - 1819
1943-05-10	1940 - 1949
2015-01-31	2010 - 2019

LEFT function syntax: Left(text field, number-of-characters)

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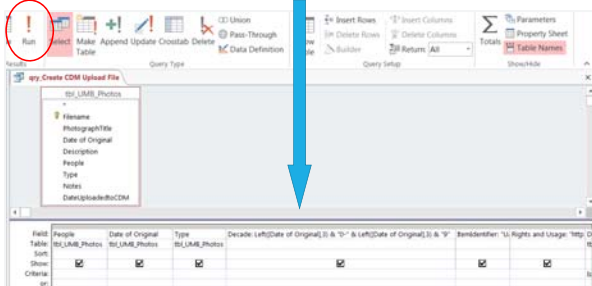
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Type into a new column in the Query:  
 Decade: Left([Date of Original],3) &"0-" & Left([Date of Original],3) &"9"




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Another example: Auto-generate the Identifier field

- Identifier (at UMB) is based on the Filename
- FILENAME: UAPHO-0004-0382.TIF
- IDENTIFIER: UASC-UAPHO-0004-0382

In English? To create the CDM identifier, add "UASC-" to the front of the filename, and get rid of ".TIF" from the end of the filename.

In MS Access? "UASC-" & Replace([Filename], ".TIF", "")

Replace function syntax: Replace(Text field, Text-to-disappear, Replacement text)

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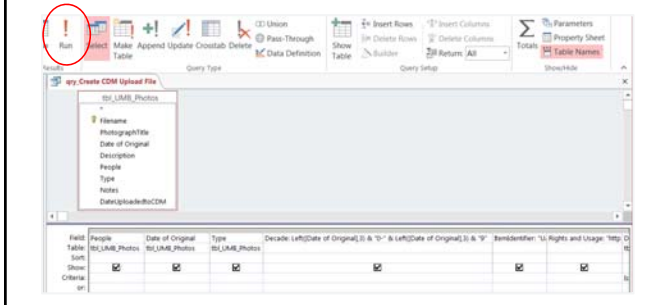
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Running a query creates a table-like view




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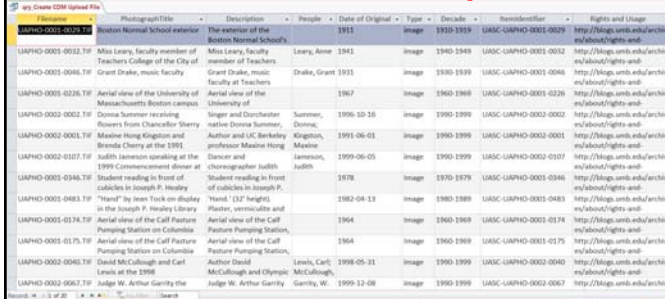
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Run the Query - Voila'!

Auto-generated with calculated fields




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Access Query columns – exactly match order of CDM fields

Field name	DC map	Data type	Large	Search	Hide	Required	Vocab
1 Title	Title	Text	No	Yes	No	Yes	No
2 Description	Description	Text	Yes	Yes	No	No	No
3 People	Subject	Text	No	Yes	No	No	Yes/shared
4 Date of Original	Date	Date	No	Yes	No	No	No
5 Decade	Coverage/Temporal	Text	No	Yes	No	No	Yes/shared
6 Type	Type	Text	No	Yes	Yes	No	Yes
7 Identifier	Identifier	Text	No	Yes	No	Yes	No
8 Rights & Usage	Rights	Text	No	No	No	Yes	No

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Access Query columns – exactly match order of CDM fields

Field name	DC map	Data type	Large	Search	Hide	Required	Vocab
1 Title	Title	Text	No	Yes	No	Yes	No
2 Description	Description	Text	Yes	Yes	No	No	No
3 People	Subject	Text	No	Yes	No	No	Yes/shared
4 Date of Original	Date	Date	No	Yes	No	No	No
5 Decade	Coverage/Temporal	Text	No	Yes	No	No	Yes/shared
6 Type	Type	Text	No	Yes	Yes	No	Yes
7 Identifier	Identifier	Text	No	Yes	No	Yes	No
8 Rights & Usage	Rights	Text	No	No	No	Yes	No

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Steps

1. Create a simple table in MS Access
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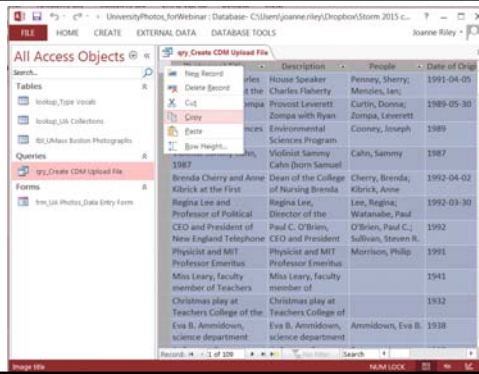
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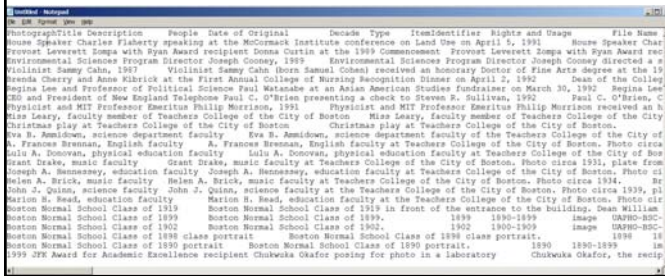
Time to batch upload!

“Select All” in the query results (Ctrl-A or click the upper left grey box)

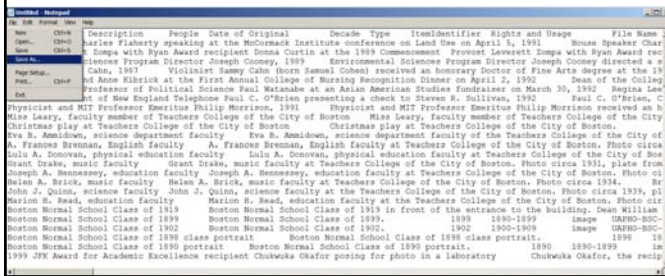
Copy...



Paste into a plain text file (Notepad) Turn Wordwrap OFF under “Format”



Save the file someplace you can find it



### Steps

1. Create a simple table in MS Access
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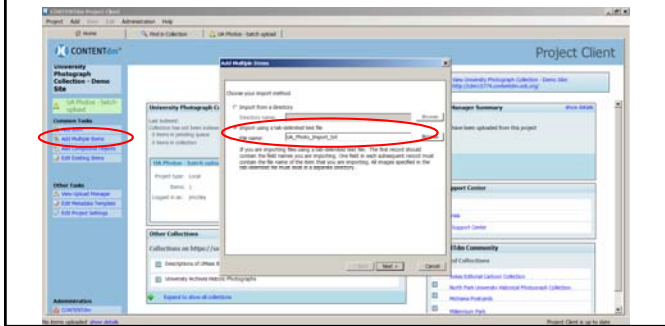
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### Use that as your tab delimited file in Proj Client




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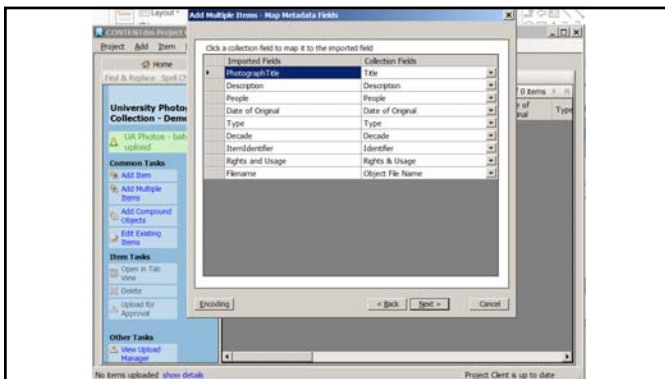
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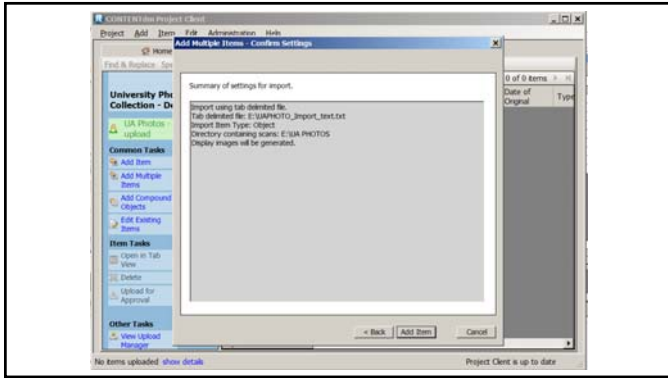
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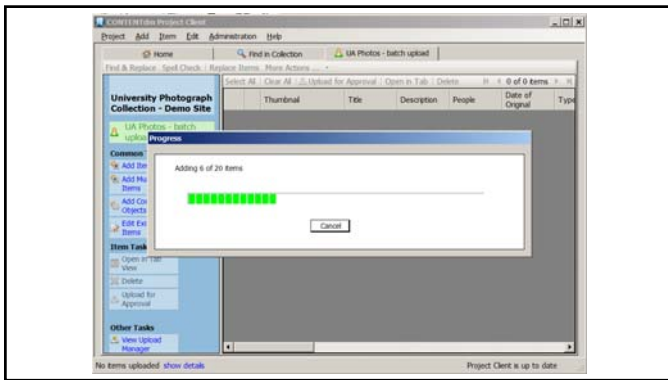
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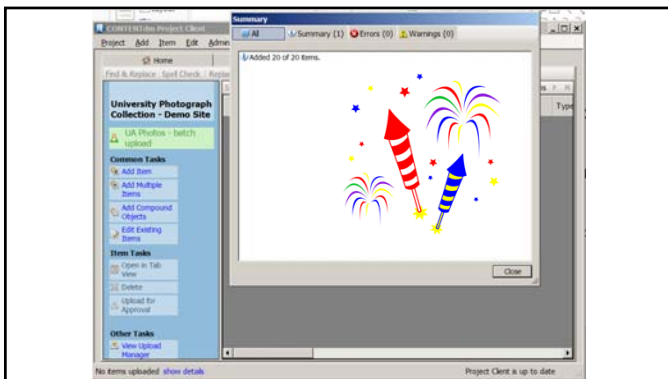
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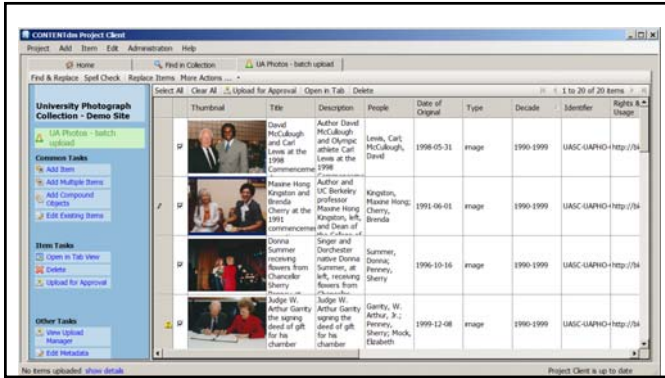
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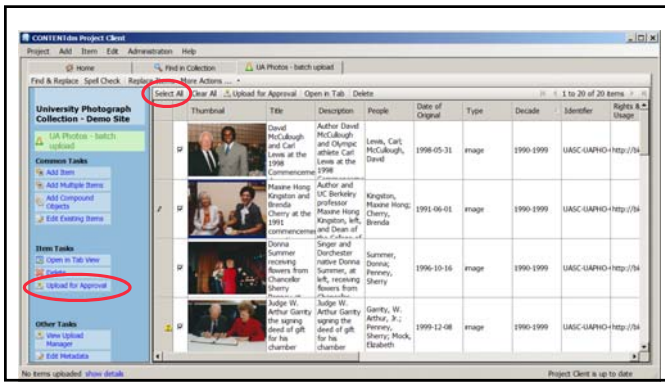
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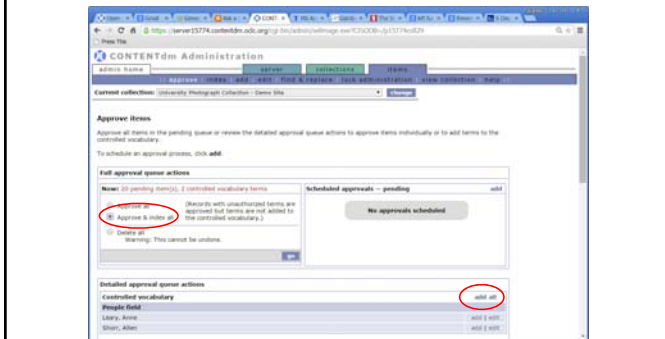
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### Approving in CDM Administration via browser




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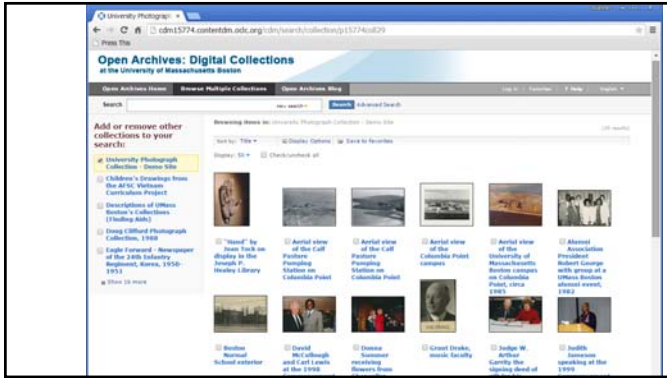
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### Here, again, are the Steps:

1. Create a simple **table** in MS Access
2. Create a **Query** in MS Access to auto-generate additional fields for CDM
3. Check that the **order of the fields** matches in the query results and in CDM's Collection Field Properties
4. **Copy and paste** the query results into a **text file** and save file.
5. Use that text file as your "**tab delimited text file**" during the batch upload process in the Project Client




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### Questions?

Feel free to contact me with follow-up questions:

Joanne Riley  
 University of Massachusetts  
 Boston  
[joanne.riley@umb.edu](mailto:joanne.riley@umb.edu)




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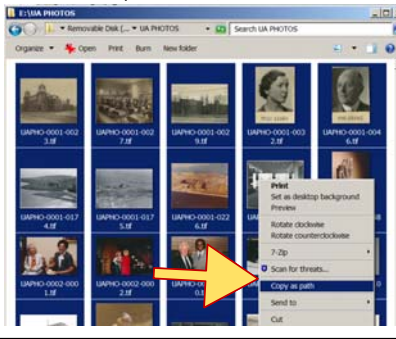
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Copying a list of filenames to the clipboard (Win 7 and later)

- 1. **Highlight one or more files** for which you'd like to copy the path in Win Explorer.
- 2. **Hold down the shift key**, and **right-click** any of the highlighted files.
- 3. When the context menu pops up, left click on the **Copy As Path** entry that has magically appeared because you're holding the shift key down.



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Tips and Recommended Resources

- From a Windows Command Prompt (CMD): `dir /b >myfilenames.txt`
  - Filename grabber: <http://www.infonautics.ch/directorylistprint/index.htm>
  - Add an extension to the Send To menu to allow you to right-click on a file or files and choose **Send To -> Clipboard (as Name)**.  
<http://www.gabrieleponti.com/software/index.html#sendtotoyz>
- Macintosh: I select all the files in Finder, press Command-C, then copy into MS Access
- Earlier Windows OS: Launch the **Command Prompt** from the Run Window (**Windows 7 & Windows 8**) by pressing **Win+R** on your keyboard. Then, where you see "Open:" type "cmd" and press Enter. At the command prompt, type the path of your image directory (e.g. E:\images\N) and press enter. Then type "dir /b > imagefilenames.txt" and press enter. It will look like nothing happened, but you now have a new text file in the E:\images directly that contains a list of your image filenames as text.
- MS Access help with expressions: <https://support.office.com/en-ie/article/Guide-to-expression-syntax-ebc770bc-8486-4adc-a9ec-7427cce39a90>

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