

## KY-NDNP FAQ

**FYI – this is a draft! There’s no mistaking the typos and less-than-stellar answers but, hopefully, there’s enough here to help until we clean it up.**

### TABLE OF CONTENTS

Microfilm.....	Page 2
Newspapers.....	Page 7
Digital Stuff.....	Page 10

## Microfilm

- 1. How can I tell if the film is a master negative, a 2n, or something else?**
  - a. Odd generations have right reading on the base side of the film
  - b. Even generations have right reading on the emulsion side of the film
  - c. Look at p.12 of the ANSI/AIIM MS 23 1998 standard
  - d. Emulsion wound “out” on the 1<sup>st</sup> and all subsequent odd generations
  - e. Emulsion wound “in” on the 2<sup>nd</sup> and all subsequent even generations.
  
- 2. How do I know the difference between the base side and the emulsion side?**
  - a. The base side is shiny
  - b. The emulsion side is dull
  
- 3. If the camera master has been removed from a collection and replaced with a duplicate, does that duplicate then become the master?**
  - a. Well, yes and no. Yes, it becomes the master for that collection but it is still a second generation negative. So, for example, if you need to make scans from the second generation negative, you would essentially be making scans from what is now the master negative. That is fine for your own purposes but, if you are part of NDNP and you are expected to deliver the print master (2N), you’d need to talk to LC about the options, if there are any.
  
- 4. Do lower density readings mean “less light” is getting through the film (it’s less dense)?**
  - a. Density is related to the amount of silver that remains on the film base after processing. Think of it in terms of thickness. Low density film has little silver which means that more light passes through the film making the images darker than you might like. This is also known as “under-exposed”.

During processing silver is washed away from those areas that received the least light during exposure in the camera. What you’re left with is the film base with trace instances of silver (this is what your Dmin readings are for). Those are the light portions of negatives which, when printed or digitized in the positive, become the darkest parts. Conversely, those parts of the original image that projected the most light appear as the darkest portions on the negative film and then become the lightest when made positive. Lower density readings mean there’s not a lot of silver on the film to make it dense and, therefore, there is less distinguishing characteristics between the light and dark characters of the image. Low density film can produce good images but it takes extra work with the scanner and you’ll likely lose some contrast.

- 5. If I have a density reading that is .30, would the positive be too dark? If I have a density reading of 1.5, would the positive be too light?**
- Technically speaking, yes, is the answer to both questions if you're going by the RLG guidelines of .9-1.2 as being optimal. But that doesn't mean you won't get a scan-able image. Especially if this reading is only from one area of the film! You might be in trouble if your average density is that high or low, but a single reading shouldn't kill the whole reel. In fact, if you look hard enough, you can find any density reading you want on any one image. Most technicians don't approach it that way since the idea is to be as "general" as possible in order to make a good overall duplicate product. But there are instances where readings can be somewhat manipulated in order to give a more accurate overall average.
- 6. NDNP specs require densities between .9 – 1.2. Have you digitized film outside this range?**
- Oh yes. Most of our film "averages" are within that range but individual densities vary a great deal. It's the average that matters. We have a huge advantage in having our microfilm lab because our techs can tweak the duplicator, and even change film stock if necessary, to give us a higher (or lower) average density. It's important to know that, if you look hard enough, you can find just about any density you want on any given piece of film! So, if you're finding low densities, go back and take more readings. You'll likely find something different. Low densities do make some difference in the scan quality - they're not as crisp and contrasted, but they certainly do not prevent you from generating legible, OCR-able images. If you have a piece of film that you really, really want to use, use it!
- 7. What do you use to look at your film?**
- We evaluate our film on a microfilm reader with the upper platen removed to avoid scratches.
- 8. What generation film do you evaluate?**
- The darkroom technicians evaluate the 1N (master) for physical description and densities. The collation and title collection is done on the duplicate or 2N.
- 9. Does the density of the master matter as much as the density of the duplicate?**
- Yes! The duplicate quality is directly related to the densities of the master. For instance, if a master negative is under-exposed or over-exposed, there's every possibility the duplicate will be as well. You can use a film stock with more or less contrast to boost such imperfections but, generally speaking, what's on the master is what will translate to the duplicate.
- 10. Should density readings be taken from the whole reel or just the date range?**

- a. You should take density readings from the whole reel because you're duplicating the whole reel even if you only deliver a portion of it. Someday the date range will open to accept the whole reel's content and you'll be able to reprocess and deliver that which was once outside the date range. So, you'll want to make a good duplicate the first time.

**11. The LC guidelines recommend .90-1.2 density readings with only a .02 change within a reel. Do you throw out a reel if the margin is bigger than that?**

- a. Oh no. If you did, you wouldn't have much film to choose from. See Questions 5 and 6 for more.

**12. I have film that I want to digitize but it is a positive. Will NDNP accept it?**

- a. At this time they will not accept scans made from positive film.

**13. How do I measure the size of the paper to determine the reduction ratio?**

- a. Unless the film contains a target that tells you the reduction ratio used during filming or has a unit of measurement, like a ruler (then use calipers to measure the paper's image), you have to take your best guess. It's likely your title is included in the Ayer's Newspaper Guide. And while Ayer's is not always accurate, it will at least get you in the ballpark. Still, you'll have to take your best guess as to the reduction ratio used to film it. Here's a great way to explain the gibberish:

The reduction ratio of a reel of microfilm is a number that describes how much the original image was shrunk down to be put on the microfilm.

For example, if a postage stamp was filmed and appears its actual size on the microfilm, the reduction ratio is 1x. If a 3" x 5" card is .3" x .5" on the microfilm, the reduction ratio is 10x.

Remember, reduction ratio is more than just a scanner setting!! It is determined at the time the microfilm is originally filmed. That number, once you determine it, should be the ONLY number that you put into the scanner to give your images correct metadata.

Ideally, the microfilm will have a target which lets you know the reduction ratio (like 16x) the reel was filmed at. You can probably trust this value.

If there is no target which explicitly states the reduction ratio, aim to find an object on the film whose actual length you know:

Sometimes there will be a target with a ruler on it -- for example, if there is a target with a 2 inch ruler, you can assume that the ruler on the original target is 2 inches long. If the target was filmed at the same time as the content of the film (and not just spliced on later), you can assume that the content was filmed at the same reduction ratio as the ruler, and thus reduced by the same amount.

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November 19, 2008

If you don't have such a target, look for the newspaper title in the N. W. Ayer & Son's American Newspaper Annual ("Ayer's Guide") to find its original dimensions (both width and height). This value may not be perfect (the guide may be inaccurate or the paper may have degraded or been trimmed before filming) but it should be close.

Once you have an object in the film whose actual length you know (like the ruler, or the width or height of the original page), you compare that length to the length on the microfilm to find the reduction ratio.

If you have calipers and good eyes, you can measure the object with calipers on the film and compare that to the size of the object to determine how much it was reduced. For example, if on the film, the two-inch ruler is  $1/8$  of an inch long, you can approximate the reduction ratio as  $2\text{in} / (1/8\text{ in}) = 16$ .

If you have access to a microfilm scanner, you can also use it to approximate the reduction ratio of the film. Set its resolution to 300dpi and approximate the reduction ratio of your film. If the newspaper on the film is in 1A orientation, you might start with 12x. If it is 2B, you might start with 20x. If you have a 2 inch ruler target, scan that target, and view the digital image. Measure the number of pixels that make up the length of the ruler and then divide by 2 -- this gives you the "dots per inch" of the digital image. If this number is close to 300, you have the correct reduction ratio! If it is significantly more than 300, lower your guess of the reduction ratio and try again. If it is significantly less than 300, raise your reduction ratio and try again.

Your final answer should hopefully be a whole number -- use 14x even if the math works perfectly for 13.9x. You can do a similar calculation if you know the length of the edge of the paper, just using that length or width instead of 2.

Even if you don't have a microfilm scanner, you can use the above method after film has been scanned to determine if the metadata (resolution and reduction ratio) for the scan is correct. If the resolution is 300dpi you should have something close to 300 dots in an inch of your document.

**14. I have film that has 1B, 1A, and 2B exposures all on the same reel. How do I check the reduction ratio?**

- a. SEE question 13

**15. If the reduction ratio isn't available on a film target, how do I find the reduction ratio of the page on microfilm?**

- a. SEE question 2

**16. Does a darker or lighter print master give better digital images?**

- a. Based on the film we've produced and scanned thus far, a film of higher contrast seems to produce "better" images. Better meaning crisper with more defined black text and white paper versus uniform gray of text and paper. We're in a very fortunate position in that we have a duplicating technician in-house who can tweak the duplicator a bit to

November 19, 2008

give us something with higher density readings. Early in the project she gave us a variety of film to choose from and always it seemed we got better scans from the higher density/higher contrast films.

Of course, the master is the master is the master. If you're dealing with master negs that were produced a long time ago, there's a good chance they're low contrast, low density films. Someone good with a duplicator can increase both contrast and density on the print master. In terms of what to look for in master negs that will produce best quality print masters - naturally, good density film is what you want. But, again, older films tend to be of the low contrast variety. If you're not going to generate a print master from these negs in-house, you could probably give instructions to your vendor that you'd like an increase in contrast. In fact, you might check with some of the other NDNP awardees and see who they've used as a vendor and if they've included any special instructions for their print master orders.

**17. We need to purchase a densitometer. What brand and vendor do you recommend?**

- a. [X-rite](#) (they're made in Michigan).

## **Newspapers**

### **1. What do I do if the date on the paper is wrong?**

- a. For papers on microfilm that have been digitized, you can request that your vendor make note of the “real date” vs. the “date as labeled” in the xml metadata they deliver to you.

### **2. How torn up do pages have to be for you to label them as mutilated?**

- a. It’s typical for most historic newspaper pages to have rough, torn edges. We only consider something “mutilated” if text is missing – for instance, someone cut out an article, the center is missing due to a fold, or half the page has been ripped away.

### **3. The pages do not have printed page numbers. How do I check the pagination?**

- a. You can check pagination in a number of ways. Pay attention to ads and certain articles – they tend to repeat from week to week in the same locations and pages. After several issues you’ll also likely establish the number of pages per issue and where these ads and articles appear. From there, you’ll be able to understand the pagination.

In those instances where the ads and articles are random, you might have to read the paper.

In those super tough instances where even reading doesn’t get you anyway, you might be forced to look at the edge of the pages themselves and match one edge against the other to understand what page is opposite of the other.

### **4. Is pagination in the metadata?**

- a. Yes. There is a field for “pages per issue”. This doesn’t take into account titles that may publish varying issues, say, a 12 page Christmas special, so, you might choose to include the pagination that represents the bulk of the issues.

### **5. For papers that change names, do I write an essay for each title?**

- a. If all that changes within a title is a simple name change, you can write a single essay then embed the differing LCCN numbers that will serve as a link once the essay has become part of the digital item.

If, however, there are distinguishing circumstances with a title change, it may be more beneficial to write a separate essay for each title. To be sure, you would still embed each essay with the corresponding LCCNs for proper linking.

### **6. Does each title have its own LCCN?**

- a. Maybe. You should check the *Chronicling America* database or World Cat to be sure.

**7. Besides missing pages, what else do I look for during evaluation?**

- a. Continuity in dates, day of publication, chronological order, missing issues, duplicate pages, mispaginated pages (this is very important for ordered reading), out of order pages, special targets, blank exposures, significant mutilation, and any intellectual content of note.

**8. We want to digitize a title that doesn't have a record. What do we do?**

- a. Contact LC about creating a record. Once an LCCN has been assigned to the title, you can digitize it.

*From LC: First, review the Directory records available in Chronicling America. Pay particular attention to publishing details such as dates, location, notes and identifying numbers (LCCN, OCLC Number) to ensure the correct record is already available in Chronicling America.*

*Then, if it is available, and looks perfect, no further action is necessary....but if some information is wrong, the record can be updated by a CONSER member if you have one available or through [Les Hawkins](#), CONSER coordinator at LC. Such changes should be made to WorldCat. Chronicling America is updated from WorldCat annually .*

*If it is NOT available (i.e. you are unable to find the appropriate record), check WorldCat for the same information. If you find it in WorldCat but not Chronicling America, something in the record is not correct according to CONSER/USNP standards. Evaluate and contact CONSER member or Les Hawkins to update.*

*If the record is NOT available in Chronicling America, before NDNP can accept the data, you must ensure the record is available and updated in WorldCat and send LC a MARC-8 export of the correct record via email. (LC will input the record into the NDNP Repository system where it will eventually be displayed through Chronicling America - NDNP repository ingest depends on the correct LCCN already being in the system. )*

**9. What metadata from the MARC record do I need?**

- a. LCCN, title from either 130 or 245 field, city, and publisher

**10. What equipment do you recommend for film evaluation?**

- a. A simple microfilm reader, with the top platen removed to prevent scratching, a densitometer and a microscope. If you purchase your film from a vendor, you can simply ask them to provide the density readings for both the 1N and 2N plus any resolution line pair readings if a res target exists. If the vendor supplies those readings, all you need is a microfilm reader.



**11. We have a supplement filmed inside an issue. What do we do?**

- a. Make a note of it in case it comes back from the vendor still inside the issue. By today's standards supplements are filmed behind the issue. Most vendor software can correct this with the simple addition of the word "supplement" when generating the metadata. If the supplement isn't tagged as such, it will just become part of the issue pagination and won't be moved to the end of the issue. If the supplement doesn't say "supplement" or some other phrase that identifies it as being a supplement, you might have to tell the vendor (having done due diligence in your microfilm evaluation) to tag x pages in x issue as a supplement so that it can be sorted properly.

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## **Digital Stuff**

**1. When do you verify a batch?**

- a. You can only verify a batch after it's been validated. Use the batch\_1 file for this.

**2. What file do you use for verification?**

- a. Batch\_1

**3. How long does it take to hear from LC after they've received a batch?**

- a. It typically takes 6-8 weeks. If you DON'T hear from them, that's usually a good sign that your batch has validated and is being ingested into the system. We usually only hear from them under two conditions A. there's something wrong and B. the batch has been ingested and the drive is on its way back to us.

**18. My reel has a large number of duplicate images that I don't want. Can they be removed and have my batch validate?**

- a. Yes, they can. You'll need to scan them because they're part of the reel sequence numbering but, they can be removed once that numbering has been assigned.

**19. How can I view a JPEG2000?**

- a. LC's DVV viewer will display JP2s. A plug-in will display JP2s in Photoshop as well.

**20. Do you use a special computer for validation?**

- a. You don't have to, no. It's not unusual for us to validate on the same computer we use for other processing and everyday stuff like email.

**21. What do you use to view the images in a batch?**

- a. We use the DVV viewer. It allows you to view the TIF, PDF, JP2 and XML while also showing the container structure.

**22. How many images fit on a 500G drive?**

- a. It's hard to say exactly for a couple of reasons. You'll want to leave some room on the drive so, perhaps, you only fill 450G. The closest we've gotten is just about 400G. There were some 10,000 TIF image files along with all their NDNP derivatives, which is to say you can get upward of 50,000 files on a drive and still have ample room.

**23. I have to give my institution a cost replacement value on our NDNP hard drive. How do I calculate that?**

November 19, 2008

- a. There are at least two obvious scenarios where you might have to replace a drive and both take varied times to fix.

The first is in the case of a drive being lost, corrupted, or otherwise unreadable. You'd need to replace the entire contents. This fix is actually the simplest and fastest of all. Before we validate the batch, we move a copy of our "batch" to the drive that's going to be delivered. We validate and verify the batch that we just copied to the drive, not the copy on the server. Using Robocopy, we copy the files on the drive back to our server so that we have an exact copy of what is being delivered. Then, if an entire drive is lost, all we have to do is move a copy from the server to another drive and mail it! In terms of time, it just means the time it takes to copy x amount of MB or GB over your network.

The second scenario involves, say, an individual (or perhaps a few) issues are bad as opposed to the whole batch. The time involved to fix this is a little longer because 1. you'll need to make your correction(s) 2. you'll need to remove the batch\_1.xml and issue xml files and 3. using the command line, you'll need to validate and verify those issues individually.

Taking a guess, it's probably no less than 6 hours no matter what the problem is when you take into account copy time and validation (which seems to take 3-4 hours on our machines with the current version of dvv).

**24. What brand of hard drive do you use?**

- a. WESTERN DIGITAL 1TB EXTERNAL HARD DRIVE (WDG2TP10000N). We also use the 500G equivalent.

**25. Do you ship your hard drives in hard cases?**

- a. Though it has been recommended to ship drives in hard cases, we don't. We package the drives very firmly with packing material in a cardboard box just like we would ship anything else. We've never had a problem (knock on wood).

**26. Will it be a problem to scan 2A film?**

- a. At present, we've had no experience with 2A film. That said, given the technical nature of our scanner (NextScan Eclipse), there shouldn't be a problem with detection of 2A images.

**27. I don't understand what role the reel sequence number plays. Does it sort the pages?**

- a. The reel sequence number tells you where each image was on the film – it's the provenance marker. Of course, you have to scan everything on the reel in order for your reel sequencing to be as true as possible but, once that's been done, you can rearrange your data any way you want. That reel sequence number doesn't matter. That's why you

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November 19, 2008

can delete duplicate pages if you want and the validator doesn't panic....or move pages from June 1 that were filmed between pages of July 20 without any repercussions.

### 28. How do you reflect missing pages in the metadata?

- a. The proper language would be something like "Not digitized, published" in the <mods:note> field. The whole sequence will look something like this....

```
<dmdSec ID="pageModsBib6">
  <mdWrap MDTYPE="MODS" LABEL="Page metadata">
    <xmlData>
      <mods:mods>
        <mods:part>
          <mods:extent unit="pages">
            <mods:start>6</mods:start>
          </mods:extent>
        </mods:part>
        <mods:note type="agencyResponsibleForReproduction"
displayLabel="displayLabel="University of Kentucky, Lexington, KY">KyU</mods:note>
        <mods:note type="noteAboutReproduction">Not digitized,
published</mods:note>
      </mods:mods>
    </xmlData>
  </mdWrap>
</dmdSec>
```

### 29. The DVV gives errors for true or false values. Why?

- a. The DVV may only recognize lower case text. Check your data and, if it has been capitalized, try "true" and/or "false" instead.

### 30. Why don't you crop to the text block?

- a. To "pretty up" the page image means removing artifactual matter that, alone may not have mean much but, as part of the artifact itself, could be very valuable to a researcher. To remove this information means we were no longer preserving a surrogate of the original but, instead, we were creating an entirely new object by altering the original document. To do so today, of course, runs counter to acceptable good digital preservation practice.

NARA's Guidelines for Digitizing Archival Materials for Electronic Access, on page 42, addresses the cropping of images; "We recommend the entire document be scanned, no cropping allowed. A small border should be visible around the entire document or photographic image." Furthermore, DLF Benchmarks for Faithful Digital Reproduction includes an important statement about digital surrogates; "Faithful reproductions...are intended to accurately render the underlying source document, with respect to its completeness, appearance of original pages (including tonality and color), and correct

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November 19, 2008

(that is, original) sequence of pages." Perhaps the feelings from LC best illustrate the intent of an uncropped page image, "consideration of the archival use of the master page image file to accurately and consistently represent page images across many different producers, filming styles, quality traits of originals, binding styles, etc., without additional metadata annotation or explanation to users (e.g., ability to see all edges provides the user with visual authentication that what they are seeing is all that is available.)"

In our opinion we see no way to accurately reproduce a newspaper page image by cropping to the text block or adding a canvas/artificial border in a way that would assure researchers that we have not altered the page images to such a degree as to corrupt the integrity of the artifact. To remove any part of the page creates a new object. Likewise, the introduction of new material (such as a uniform canvas border) creates a new object. Since these images are created in grayscale, we believe adding an artificial border, tonally speaking, would be difficult to accurately and consistently reproduce without being obvious and such detail would increase production time at the individual page image level. An automated process would make the alteration even more conspicuous.

While one could argue that, since the tone and color of these newspaper pages has already been altered by the microfilm that we stand to lose nothing from further doctoring, we contend that we do, indeed, stand to lose what's left of the original artifact by unnecessarily altering the pages any more than necessary. Some things we cannot control, such as consequences introduced through the act of digitization, but for those things we can control, we have an obligation to the newspaper's preservation and to our own integrity to keep them as true to their original form as possible. This will better ensure their life into the future and leaves no doubt for posterity that we have provided the best possible image that we can create at this time. We believe that, in many ways, presenting a page with its edges intact is a matter of trust that should not be negotiable.

**31. What kind of metadata do I supply the vendor? Reel sequence numbers?**

- a. The reel sequence numbers are automatically generated by the software. You'll need to supply everything that is mentioned in the NDNP metadata dictionary. For instance, issue #, dates, pages, missing pages or issues, etc.

**32. What do you do about mispaginated pages or issues with the wrong date?**

- a. Let's say your vendor doesn't have any way of representing, in an automated way, mispaginated or issues with the wrong date. The way NDNP pagination metadata works is, if there is a page actually printed on the paper, then it is given that number exactly as it is printed (such as 5 or *five*). If there is no page number printed, then whatever

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November 19, 2008

number you give it must be assumed. Whatever assumed number it is given will also sort it in that order. So, if you have no page numbers printed on the page, the person who enters the metadata will assume the page number. Now, if that paper was filmed in order, no problem. But, if it wasn't, then the user won't know the difference and neither will the person entering the metadata. That's why we evaluate the paper ahead of time so we can identify those issues with out of order pages and generate the metadata accordingly. You can't always tell just by looking at the digital surrogate. Order will only matter to you maybe but it also matters when considering the provenance of the paper itself. So, you really have to decide how truthful you want your data to be because most of the people looking right now will be none the wiser for those issues unpaginated.

To understand what you're looking at when you look at the xml:

```
<dmdSec ID="pageModsBib2">
  <mdWrap MDTYPE="MODS" LABEL="Page metadata">
    <xmlData>
      <mods:mods>
        <mods:part>
          <mods:extent unit="pages">
            <mods:start>2</mods:start>
          </mods:extent>
        </mods:part>
        <mods:relatedItem type="original">
          <mods:physicalDescription>
            <mods:form type="microfilm" />
          </mods:physicalDescription>
          <mods:identifier type="reel number">00100479503</mods:identifier>
          <mods:identifier type="reel sequence number">128</mods:identifier>
          <mods:location>
            <mods:physicalLocation authority="marcorg" displayLabel="University
of Kentucky, Lexington, KY">KyU</mods:physicalLocation>
          </mods:location>
        </mods:relatedItem>
        <mods:note type="agencyResponsibleForReproduction"
displayLabel="University of Kentucky, Lexington, KY">KyU</mods:note>
          <mods:note type="noteAboutReproduction">Present</mods:note>
        </mods:mods>
      </xmlData>
    </mdWrap>
  </dmdSec>
```

The placement of this page is identified by:

```
<dmdSec ID="pageModsBib2">
```

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November 19, 2008

The page number it has been assigned is:  
<mods:start>2</mods:start>

Makes sense, right? But what if, when you pull up this issue in the DVV viewer, it actually displays a page image of page 8? Easy enough to think it's simply in the wrong place but when you get to the eight position is also shows page 8. But each page 8 has different content so you know one of them is an imposter!

It was common among KY papers to accidentally print "8" on the second page. By assigning exactly what is on the page it then sorts as 1,3,4,5,6,7,8,8. But the issue really should be 1,2,3,4,5,6,7,8. If your vendor didn't make arrangements for this (and they sometimes don't), you have to manually change the xml so that your issue will sort in the order it was meant to be read rather than repeating the publisher's mistake.

The same thing is true for unpaginated issues. The vendor will assume the pages as they appear to them in digital form and they will have little impetus to make judgment calls of such nature. That's why knowing your content is so important - so when they bring you the goods, you can check their work and re-arrange as necessary. Of course, this comes with a great deal of added work which is why it is up to you to decide how the pages go forward in the future.

And rearranging isn't as simple as just changing the <mods:start>2</mods:start> number. You have to physically move and place-in-order the entire code block in the descriptive metadata section, then you have to do the same in the structural map section and also change every corresponding number in the file section, for instance:

```
<fileGrp ID="pageFileGrp2">
  <file ID="masterFile2" USE="master">
    <FLocat LOCTYPE="OTHER" OTHERLOCTYPE="file" xlink:href="0132.tif" />
  </file>
  <file ID="serviceFile2" USE="service">
    <FLocat LOCTYPE="OTHER" OTHERLOCTYPE="file" xlink:href="0132.jp2" />
  </file>
  <file ID="otherDerivativeFile2" USE="derivative">
    <FLocat LOCTYPE="OTHER" OTHERLOCTYPE="file" xlink:href="0132.pdf" />
  </file>
  <file ID="ocrFile2" USE="ocr">
    <FLocat LOCTYPE="OTHER" OTHERLOCTYPE="file" xlink:href="0132.xml" />
  </file>
</fileGrp>
```

Should be page 8 in the 8th position - it'll look like

```
<fileGrp ID="pageFileGrp8">
  <file ID="masterFile8" USE="master">
    <FLocat LOCTYPE="OTHER" OTHERLOCTYPE="file" xlink:href="0132.tif" />
  </file>
```

November 19, 2008

```
<file ID="serviceFile8" USE="service">  
  <FLocat LOCTYPE="OTHER" OTHERLOCTYPE="file" xlink:href="0132.jp2" />  
</file>  
<file ID="otherDerivativeFile8" USE="derivative">  
  <FLocat LOCTYPE="OTHER" OTHERLOCTYPE="file" xlink:href="0132.pdf" />  
</file>  
<file ID="ocrFile8" USE="ocr">  
  <FLocat LOCTYPE="OTHER" OTHERLOCTYPE="file" xlink:href="0132.xml" />  
</file>  
</fileGrp>
```

The real trick is to make sure you didn't make a typo of any kind because it will instantly throw an error while validating and you can't go back to validate a single issue (even though the DVV suggests it can be done). It's best to validate the issue as soon as you make the changes so, when it's time to validate the batch, it doesn't hiccup.