

## Microfilming for digitisation

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This document answers questions from ANPLAN members to the Australian Newspapers Digitisation Program.

### 1. What standards should I follow if I am microfilming newspapers and know I will later want to digitise from the microfilm?

When microfilming it is highly recommended that you read and follow these established guidelines which are still current:

- Guidelines for Preservation Microfilming in Australia & New Zealand, National Library of Australia, 1998 <http://www.nla.gov.au/pub/presmic.html>
- Guidelines for newspaper microfilming, IFLA, 1996. <http://www.ifla.org/VII/s39/broch/pr49-e.pdf>
- RLG Preservation Microfilming Handbook (and also RLG Guidelines for Microfilming to Support Digitisation supplement PDF <http://www.oclc.org/programs/ourwork/past/presmicrofilm/microsuppl.pdf>)

There are no different processes or guidelines for microfilming when you want to digitise from it later, than for standard microfilming.

### 2. Should I film 2 pages to a frame or 1?

So long as the international standards are followed and a good reduction ratio selected it makes no difference to digitisation whether you have 2 pages per frame or 1. (Reduction ratio relates to legibility of text on the microfilm and generally anything in the lower ranges 10 – 20x is suitable). During the digitisation process the frame or page splitting is performed by the scanning software as part of the process. Different scanning software has varying levels of success for correct identification of page boundaries and page splitting. The recommended scanning software for ANDP (NextStar) is excellent at page splitting a double frame into single pages, and no issues are caused by this and no additional cost is incurred since this process is fully automated and happens in a matter of seconds.

### 3. How is density of microfilm measured and why is it important?

The density through out a microfilm can be measured accurately using a densitometer. If a densitometer is not available an expert can usually get a rough idea if density is really variable or unacceptable by examining the film by eye. Density levels and testing should always be a requirement included in the microfilming specification. Density is usually tested before digitisation of microfilm will begin to ensure it is adequate. Uneven density across a microfilm makes the text hard to read, view and digitise.

#### 4. What affects legibility of the digital image?

The three things that effect legibility of the digital image are the same three things that effect legibility of the text on the microfilm. These are:

- Reduction ratio
- Resolution
- Density

The settings must be correct/good for the microfilm. The settings will vary between each newspaper title since they are dependant upon newspaper page size and text size. If these things are set correctly for the microfilm and the microfilm is clearly legible then when it is scanned into digital format it will also be legible.

#### 5. What else do I need to know?

##### **Best copy principle**

You should apply the 'best copy principle' to the selection of newspaper pages for microfilming. It follows that if pages that are microfilmed are torn, damaged, missing, illegible etc then neither the customer using the microfilm or the generated digital image is going to be able to read the pages properly. Preferably the newspapers to be filmed should be:

- Complete run
- Unbound, but if bound no serious obscurement of text in gutters
- Clean copies (no blotching, dirt, fading, text is readable)
- Even inking throughout
- No excessive bleedthrough
- No excessive damage, tears, holes
- No folds or other obscurement of content.

However this is not always possible, so for preservation and access purposes you may need to microfilm whatever you have if it is the last copy, because a damaged page is always better for the customer than no page.

##### **Specification and Quality Assurance**

You should have a clear specification for microfilming and an internal quality assurance (QA) procedure in place. The microfilming specification should include:

- Preparation and handling requirements of the hard copy paper
- Scanning requirements for layout e.g. pages being straight, being in reading orientation, pages per frame, being filmed on a black background
- Technical requirements – camera being in focus, resolution, reduction ration, density
- Acceptance criteria
- How acceptance criteria will be measured by you
- Procedure for re-doing work if it does not meet requirements, including timeframes.

It is important to note that libraries should have a means of testing the acceptance criteria by internal quality assurance procedures. This will usually involve viewing samples of the film or the entire film as well as measuring density. For quality assurance to be effective it must be performed by the customer. You should not ask your scanning bureau to do the quality assurance for you.

#### 6. What issues has ANDP encountered so far in digitising from microfilm?

Most of the issues that have been encountered with digitising microfilm in the ANDP so far would have easily been picked up and rectified at the time the microfilm was made if a clear microfilm specification and adequate quality assurance procedures had been in place at the customer end. The most common issues have been:

- Text on microfilm is out of focus (due to focus not being adjusted properly on camera when the film was made)

- Layout of pages – pages being upside down, out of sequence, cut in half, filmed on top of other pages instead of on a blank background.

Most of the film seen so far was created in the 1960's and 1970's before international guidelines were clearly established. The ANDP has not encountered any recently created microfilm that has significant issues with it. If this happens ANDP will report back directly to the Library that commissioned it so that the issues can be addressed.