



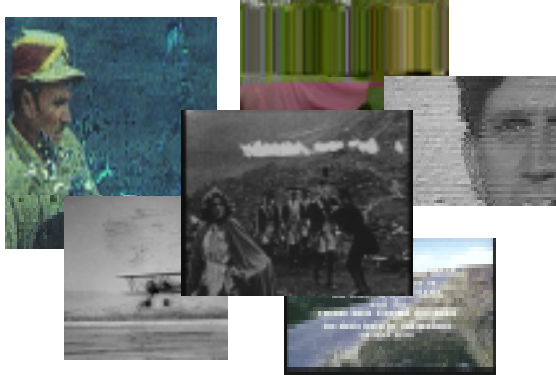
Restoring Rory O' More

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<http://www.mee.tcd.ie/~sigmedia/>



1. Overview



Recent years have seen an increase in interest in movie restoration. Archives always have interest in Preservation and Conservation but the demand for content for Digital Visual Media like DTV and DVD has increased the market for "good" old pictures.

2. Making shots from Rory

The Irish Film Archive gave us a 12 min film, over 12,000 frames. First we parsed the film into shots for easier analysis and viewing. There were 38 separate shots in all. We applied each stage of restoration to the shots individually.



3. Algorithms and Analysis.

We have developed several processes to remove the various distortions. We treated each shot in the following way: remove shake, remove flicker, remove blotches, remove lines and then do some noise reduction. These processes are implemented as **computer programs**.



4. Viewing and double checking.

After each restoration step each shot was checked and reprocessed if necessary.



5. How long did it take?

The total restoration process takes around 90 secs per frame. This compares quite favourably to doing it by hand where an estimate of 10 mins per frame is not unreasonable.

6. Is it any better?

Digital methods like these can remove problems like flicker and shake that are difficult to remove by any other means. Blotch removal is simply too tedious and painstaking by hand.

But tough motion always causes trouble ...

