

DESCRIPTION OF METHODS FOR PREPARATION OF RELEASE PRINTS

Nomenclature:

- ON - Original negative
- SP - Separation positives
- IN - Inter negative
- RP - Release print
- B&H - Bell and Howell type continuous contact printer giving no corrections
- ACME - Acme type projection printer for process work and giving no corrections
- S - Continuous slit projection printer giving B-correction
- SO - Same with oscillating lens giving B and A<sub>1</sub> corrections
- SS - Side scan intermittent projection printer giving A<sub>2</sub> correction
- SSC - Same with curved gates giving A<sub>1</sub> and A<sub>2</sub> corrections
- SSU - Same but with additional lens motion giving A<sub>1</sub>, A<sub>2</sub> and B corrections
- SSD - Side scan intermittent projection printer with lens motion giving A<sub>2</sub> and B corrections
- CC - Curved gate intermittent proj. printer giving A<sub>1</sub> correction
- DD - Curved gate intermittent proj. printer giving B correction

It seems reasonable to assume that the release prints should be made on a high speed printer which will operate at speeds up to 90 feet per minute. Therefore, the three methods, which present themselves are the B&H, the S and the SO types. Working backwards from each of these three in turn, the following possibilities evolve:

Case I

	(1)	(2)	(3)	(4)	(5)
RP	B&H	B&H	B&H	B&H	B&H
IN	(no corrections)				
SP	SSU (A <sub>1</sub> /A <sub>2</sub> /B)	ACME (None)	S or DD (B)	SSD (A <sub>2</sub> /B)	SO (A <sub>1</sub> /B)
ON	ACME (None)	SSU (A <sub>1</sub> /A <sub>2</sub> /B)	SCC (A <sub>1</sub> /A <sub>2</sub> )	CC (A <sub>1</sub> )	SS (A <sub>2</sub> )

<u>Case II</u>		(6)	(7)	(8)	(9)
RP	↘	S	S	S	S
		(B)	(B)	(B)	(B)
IN	↘	SSC	ACME	CC	SS
		(A <sub>1</sub> /A <sub>2</sub> )	(None)	(A <sub>1</sub> )	(A <sub>2</sub> )
SP	↘	ACME	SSC	SS	CC
		(None)	(A <sub>1</sub> /A <sub>2</sub> )	(A <sub>2</sub> )	(A <sub>1</sub> )
ON	↘				

<u>Case III</u>		(10)	(11)
RP	↘	SO	SO
		(A <sub>1</sub> /B)	(A <sub>1</sub> /B)
IN	↘	SS	ACME
		(A <sub>2</sub> )	(None)
SP	↘	ACME	SS
		(None)	(A <sub>2</sub> )
ON	↘		

Of these eleven possibilities those combinations which contain a step using the Acme type printer would allow for process work which may be demanded. Although not excluding other methods, this favors methods (1), (2), (6), (7), (10), and (11).

Case I. The use of the B&H type of continuous printers in the final step would have the advantage that a high rate of printing speed would be obtained without the uncertainties which exist with the S or SO printers. It does, however, require the SSU type whose performance is even more uncertain. Regarding which of methods (1) or (2) would be preferable, it seems that it would be desirable to do the process work before introducing the B correction since it may well vary with the theatre type and hence would call for various process films and masks to be prepared corresponding to varying amounts of B correction. Thus method (1) would be preferred. With this method it would be possible to prepare, say, three copies of each of three or four types of inter negative films corresponding to the different theatre type in which the B correction and perhaps also the A<sub>2</sub> correction will vary. These could then be run on a battery of B&H type printers and thus produce release prints in the minimum elapsed time.

A further advantage of this system which would be of considerable importance is that release prints can be made directly from the original negative using the SSU printer provided that the time required for printing is not prohibitively long.

Case II. Now if instead, the S or the SO type of printer is to be used in the final step, then preference would indicate the S type because of its greater simplicity and possibly higher speed. Assuming the S type for the moment, then method (6) or (7) might be equally practicable with perhaps a small advantage accruing to method (7) since the process work would then be done on films which had received the A<sub>1</sub> and A<sub>2</sub> corrections and would appear more like the final screen image, thus aiding composition and judgement of process steps needed.

This method requires development of both the S and the SSC type printers and although the SSC type presents a less formidable problem than the SSU type, the development of both types is perhaps an equally difficult task.

Case III. If a satisfactory S type printer can be worked out, it will probably be possible to work out the SO type as well. This would reduce the complexity of the intermittent printer of the SS type and perhaps in certain theatres even obviate it altogether. In the latter instance the SO type printer could be used to prepare release prints from the original negative just as in method (2).

If the SS printing step is retained there is no strong reason for using it either before or after the process work since now only partial correction will be given, the A<sub>1</sub> correction entering at the final step.

In Case III as in Case II, the inter negative films will probably not differ according to theatre type (unless some variation in A<sub>2</sub> correction is required) and hence each set of release prints must be printed with different continuous (S or SO) printers or with the same printer modified according to the theatre type.