HELL

FastLine

Operating Instructions

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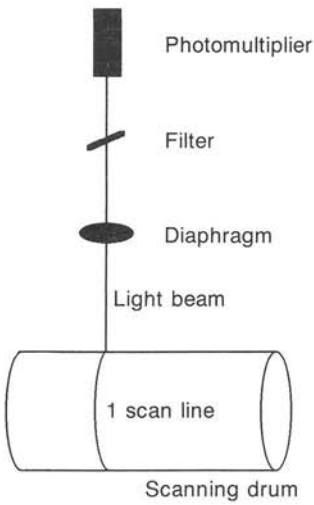
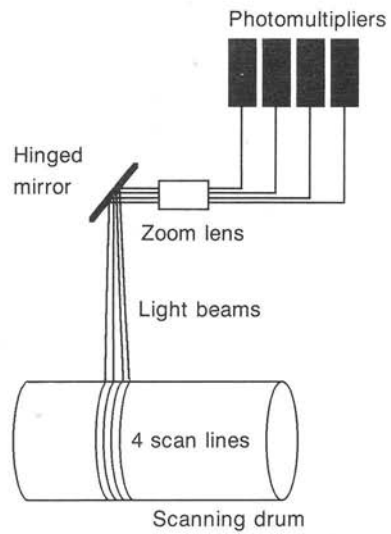
FastLine

Principle

1-channel line scanning:



4-channel line scanning:



Function

In 4-channel line scanning "FastLine", the differences to 1-channel line scanning are as follows:

- 4-channel line scanning scans 4 lines simultaneously. This enables scanning at the DC 3010 S scanner to be four times as fast.

- 4-channel line scanning allows switch-over from 4-channel scanning to 1-channel R, G or B; each channel can also be set and stored individually.

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- 4-channel line scanning uses white light.
  A calculated value is displayed.

- The 1-channel beam path of the 4-channel line scanning, however, is monochromatic. It can be guided alternatively through one of the R, G or B filters.

- Special color computer settings (image setting, color correction, USM, etc.) are no longer required for line scanning.

The 4-line scanning can only be used in system operation within a certain scale range (see table):

Areas of application e. g.:

- Line / text scanning
- Logo creation
- Layout mask creation

Screen		Resolution Factor			
Ruling	Feed	T1	T2	T3	T6
40R	2R	125 - 1250%	63 - 625%	42 - 416%	21 - 208%
48R	2R	105 - 1041%	53 - 520%	35 - 347%	18 - 173%
60R	2R	84 - 833%	42 - 416%	28 - 277%	14 - 138%
70R	2R	72 - 714%	36 - 357%	24 - 238%	12 - 119%
80R	2R	63 - 625%	32 - 312%	21 - 208%	11 - 104%
120R	2R	42 - 416%	21 - 208%	14 - 138%	7 - 69%

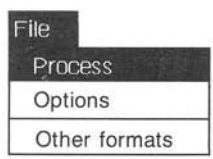
Outside these ranges, 1-channel scanning is automatically set. A corresponding note appears in the logfile.

Operating Sequence

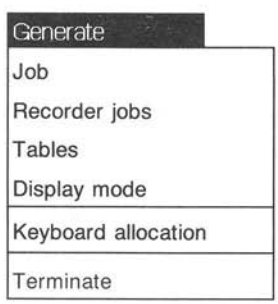
Example of an operating sequence for creating a job with "FastLine" at the ChromaSet P 330 or at the S 3010/S scanner:

- Switch on unit. The monitor is switched on as well if it has already been activated.

- Enter the user identification in the DC 3000 Operating Unit window and confirm by actuating OK.



- If a job has already been generated at the ChromaPlan, ChromaScale, ChromaLight or ChromaSet:
  Copy the data from floppy disk onto the hard disk by means of the Process function in the File menu.



- Select the menu item Job in the Generate menu.

- The Generate job window appears for calling up / creating a user-specific job.

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In order to keep the parameter set-up time at a minimum, the Hell Master jobs (identified by an H and a number at the beginning of the name) or the Customer jobs (identified by a C and . . .) should be used for creating a line job.

Setting the Parameters of a Job:

- Execute the drum change.

- The user-specific (line) job which suits the original best is called up and modified according to the original.

- By clicking on the scanner icon, the icons for the Scanner parameter set-up appear.

- Call up the Basic setting window:
  - Select the scanning mode and switch on the scanning light.
  - Measure the focus.
    Note: Align screened originals with Unsharp scanning!
    If necessary, store the values as a parameter group by selecting the Save entry as ... function in the Directory menu.
  - Acquire drum type and number.
  - Execute the basic alignment.

- Determine the scanning geometry (unless this has already been done).

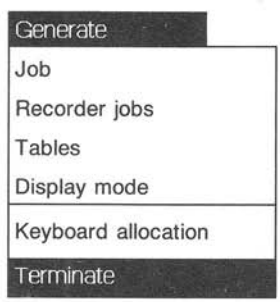
- Call up the Line scanning window:
  - Execute measurements
  - Determine threshold value

Other image settings are not necessary !!

Required only for output:

- With the recorder parameter set-up, call up the Job area window: In this window, adjust the black separation only via the Special function. Set further recorder parameters as usual.

- Execute system parameter set-up as usual.



- Once all desired parameters are acquired, store the job under Generate:Terminate. (If necessary, create a subqueue - available only in the EXTEND 300 software package).

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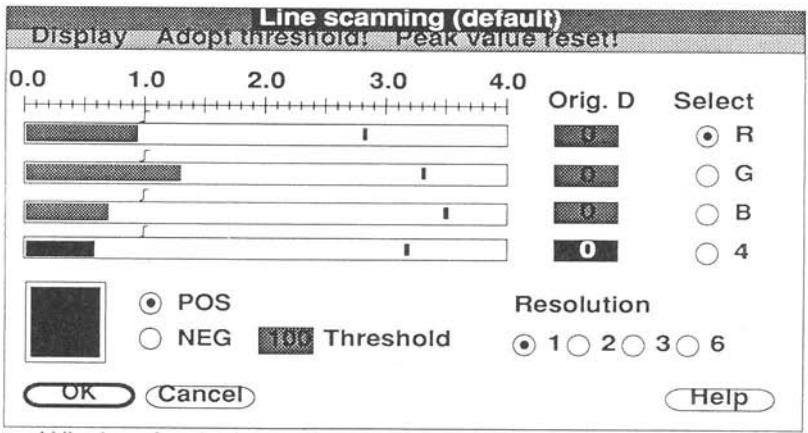


Window for 1-channel or 4-channel line/text scanning
(4 channels only with "FastLine" option).

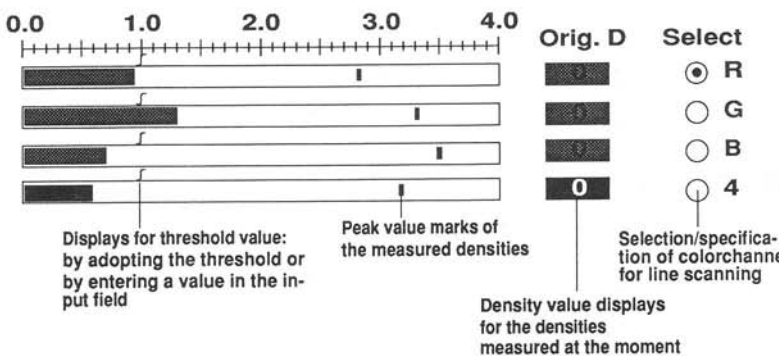
Functions:

1. Measurement of original densities for R, G and B. One calculated value is displayed for 4-channel scanning.
   Note:
   In the case of pure colors, differences between threshold and calculated measured value may occur. This has to be taken into account when inputting the threshold value.
2. Determination of threshold value.
3. Selection of scanning mode.
4. Selection of resolution factor.
5. Peak value display of the measured densities.

What does threshold value mean?

Density value (Orig. D) from which point on the scanned information is identified as black or white.

Operation:



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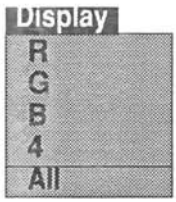
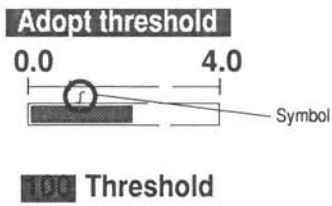
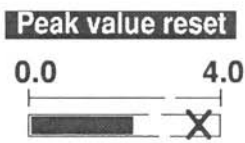


4-channel scanning:
Selection as to whether individual or all channels / color bars are displayed during measurement.

Note:
1-channel scanning (SW version A5):
Inoperable.



Clicking adopts the density value measured at the moment as the threshold value:
a) as a symbol over the color bar
b) in the Threshold input field



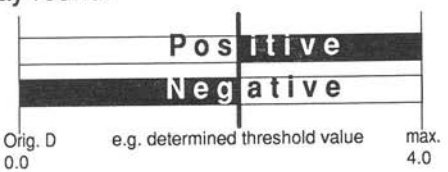
Clicking deletes the peak value marks for the maximum density.

Note: When the window is closed, the peak value displays for maximum values are deleted and not stored. The threshold value is stored.

With 1-channel scanning, the selected channel is displayed (depending on the hardware).
The 4-channel scanning (only with the "FastLine" option) allows a selection between R, G, B or 4.

Recording density display field
The display field for POS is:
□ white when the measured density value is below the threshold value,
■ black when the measured density value is above the threshold value.

The display for NEG is just the other way round.



Selection of scanning mode

⊙ **POS** A positive line separation is generated, i. e. values between 0 and threshold value result in white.

⊙ **NEG** A negative line separation is generated, i. e. values between 0 and threshold value result in black.

Threshold value Input or adoption of the threshold value for the selected channel.

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Resolution

The resolution factor indicates the degree of high resolution.

- ⊙ **1** Text with normal resolution.
- ⊙ **2** Text with resolution twice as fine.
- ⊙ **3** Text with resolution three times as fine.
- ⊙ **6** Text with resolution six times as fine.

With methods of operation High speed and Normal with fine recording, text exposure is not possible with resolution factors 1 and 3.

Example

With resolution factor 6 and a ChromaCom job with a resolution of 120 l/cm, the line original is scanned with six times the high resolution, i. e. the resolution is 720 text lines/cm.

Further Notes on Operation

If measurements are not possible since another measuring procedure is still active, the following occur:

- "Adopt threshold" is given a gray background
- No color bars and nothing specified at Orig. D
- Recording density display field is given a gray background
- A message is issued

If the current measuring procedure is terminated, the Line scanning window has to be closed and called up again for new measurements.

When the window is opened, either data from the stored job or default data (presetting) are displayed.