



# > virtual lab tour lab tour

## Microfilm Arrives At The Lab

- Extensive courier system maintained by MSI
- Barcode identifies customer and application
- Printed Job Sheet or label ensures correct handling
- CAPSTRAK input improves accuracy and productivity
- CAPSTRAK provides item processing audit trail



## Microfilm Enters The Darkroom

- Maze entrance
  - NO DOORS TO BE LEFT OPEN
- Total Darkness
- Unlike other labs in industry MSI uses no safelights white lights are on key switch (limited access)
- Cassettes are loaded and unloaded in total dark Light sensitive processor operations are performed in total dark

## 3 - Allen Deep Tank Processors

- State of the Art; Darkroom Load
- Electronic regulation of speed and temperature
- Designed for continuous non-stop processing
- Dual load and dual takeup
- Production speeds of 150 to 200 fpm
- A technician in darkroom and in light area during operation
- Battery backup



## Process Control

### Control Strips Simulate Sorter/Camera Exposure

- Exposed on same film type as production
- Series of exposures in 21 steps
- Exposure duration is 10-6 seconds (1/1,000,000th second) for IBM 3890 film
- Exposure duration is 10-2 seconds (1/100th second) for rotary cameras, planetary cameras and slower sorters





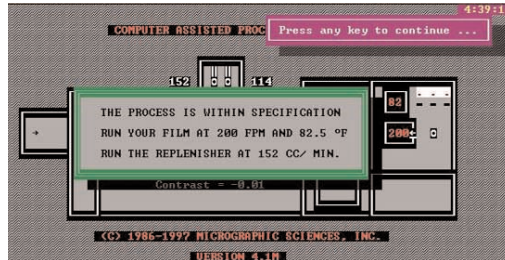
### Before Processing

- Control Strip verifies process state
- Checklist verifies processor readiness

### During Processing

#### Control Strip processed every 1500 feet

- As many as 75 per processing day
- Highest sampling rate in the industry - typical lab only runs 2 or 3 per day
- Film Manufacturer certification programs only require 1 per month



#### Each Control Strip is immediately evaluated

- CAPS measures film speed and contrast
- CAPS determines compliance to specification
- CAPS makes immediate changes in the process as required
  - Always moves process to center of specifications adjusts process to ensure short-term compliance
  - Adjusts chemical replenishment level to ensure long-term compliance

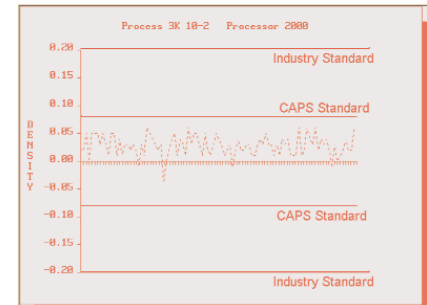


### Film Speed

#### Property of developed film that determines sensitivity to light

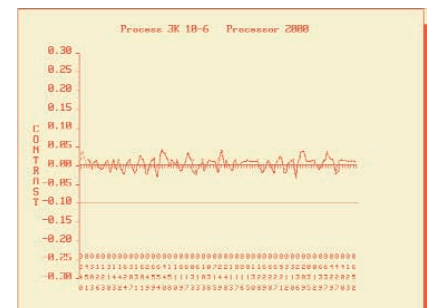
- CAPS maintains this at +/- 0.015 (+/- 0.06 density) tightest in the industry - industry standard is almost 4 times as wide

#### Relates to background density of images



### Film Contrast

- Property of developed film that determines difference between background, scene, and line work of image
- Determines the ability to print or scan an image from film
- CAPS is the only system in the industry that measures and adjusts contrast





**Microfilm Is Inspected**  
**3 sets of inspection codes**

**1. IBM 3890 specific**

- 162 identified problems
- many codes are based on IBM service manual
- all codes prioritized by importance

**2. Non-IBM Sorter specific**

- 90 identified problems
- all codes prioritized by importance

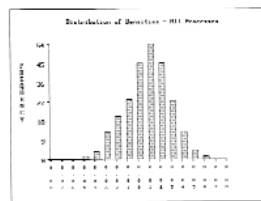
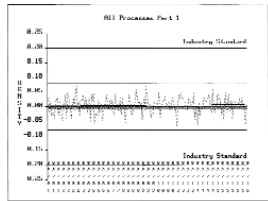
**3. Roll Microfilm specific**

- 124 identified problems
- all codes prioritized by importance



**After Process Evaluation**

- Monthly statistical reports evaluate lab's performance and conformance to CAPS rules
- Evaluation by lab, processor, and process



**Microfilm Is Duplicated**

- Diazo or Silver duplication
- Premium "Tonal" diazo film preserves contrast of original film
- High Resolution equipment preserves sharpness
- Duplicate Storage
  - Economic "pancake" storage
  - Disaster recovery protection at a reasonable cost*
  - Reader - Printer formatted storage
  - Allows MSI to provide backup photocopy services*

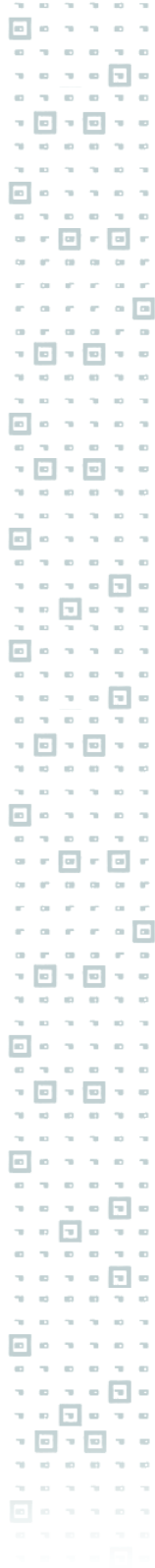


**Microfilm Is Prepared For Return**  
**Sequence numbers and inspection data is entered into CAPS**

- CAPS validates image count
- CAPS checks for duplicated numbers
- CAPS validates sequence numbers
- CAPSTRAK data is automatically compared to inspection data*

**CAPS assigns roll number or film storage location**

- Based on bank's storage system





### Microfilm Is Labeled

- Laser Printed labels may contain barcodes
- Laser Printed labels may contain logo
- Each customer has individual format
  - Format determines label design, data location
  - Typical label includes Roll Number, Work Date, Sequence Numbers
- Color Coding



- Labels may be color-coded by date, site, department, job, day of the week, month, etc.



### CAPS/ARP System

Permits multiple formats within one customer

- Each department or customer has individual label format
- Uses barcodes to track formats
- Tracks required duplicates
- Tracks film formatting requirements
- Microfilm returned "shelf-ready"
- Customized billing

BANK ONE TRUST BM4336	KENTUCKY UTILITIES BM8259
BANK ONE CORPORATION BM4371	BORDEN, INC. BM8266
CELLULAR ONE BM4688	BORDEN, INC. BM8274
CITY OF SCOTTSDALE BM4771	BORDEN, INC. BM8290
ASHLAND COAL BM4960	BORDEN, INC. BM8303
AT&T DAYTON BM5479	BORDEN, INC. BM8311
PLASTIC SUPPLIERS BM5578	BORDEN, INC. BM8338
CELLULAR ONE BM5738	BORDEN, INC. BM8346
BANK ONE TRUST BM6238	BORDEN, INC. BM8354
WEISHEIMER COMPANY BM7425	BORDEN, INC. BM8362
BORDEN, INC. BM8258	BORDEN, INC. BM8370
BORDEN, INC. BM8258	BORDEN, INC. BM8389

