



APERTURE CARD SCANNING SERVICES

RELEASE THE INFORMATION IN YOUR MICROFILM
AND CREATE A WEALTH OF POSSIBILITIES.

APERTURE CARDS • MICROFICHE • MICROFILM

DIGITISING APERTURE CARDS

Punch cards in their roughest form were invented in the early 1800's as a system to control loom weaving patterns. The technology advanced over the years. Around 1890 Herman Hollerith created the electromechanical punch code. Hollerith's code became the standard language used on punch cards as we know them today.

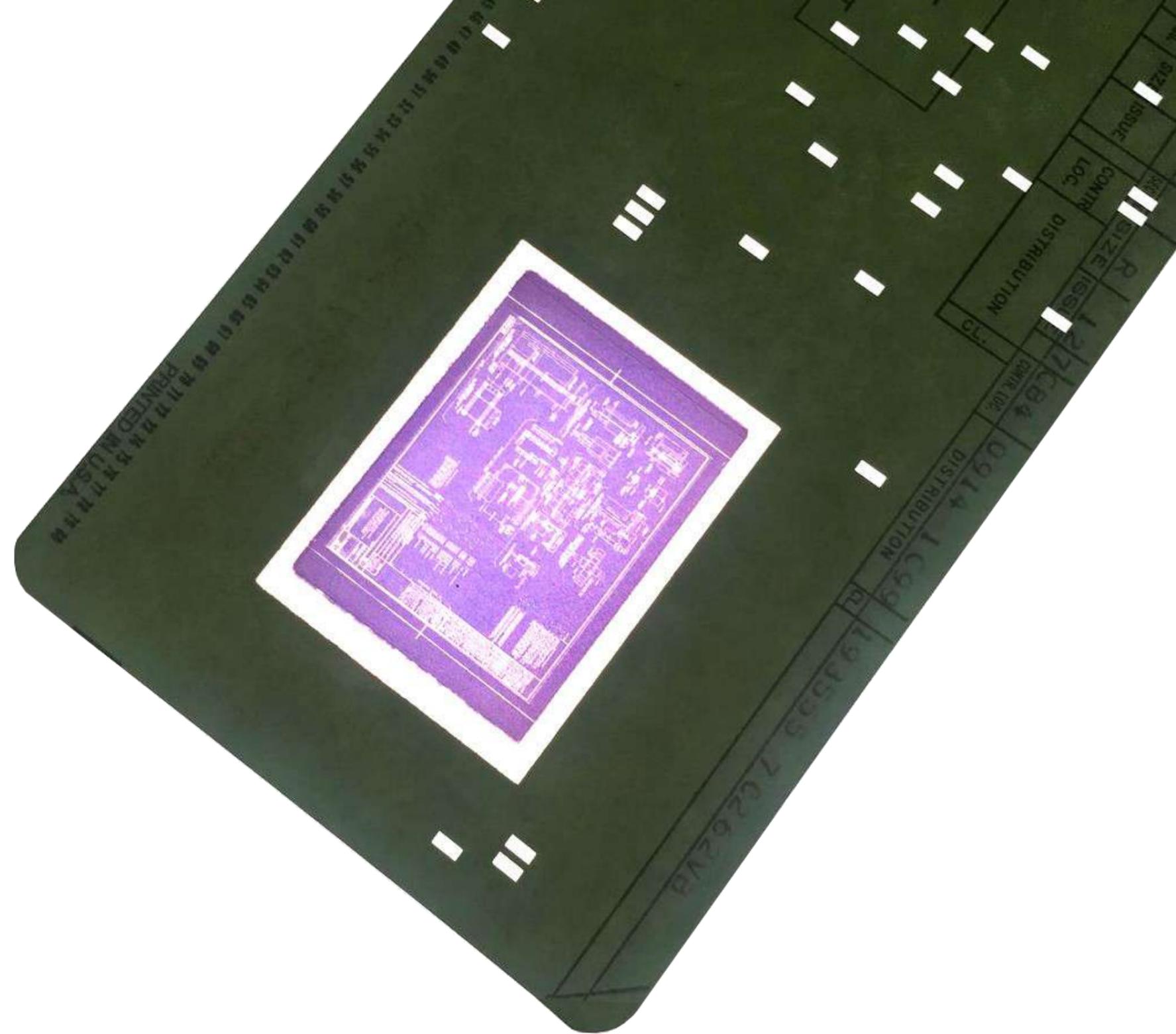
Manufacturers had a need for an easy, condensed and inexpensive way to transport and archive their images as well as information so punch cards were further adapted to include an aperture hole on the right side of the card where a microfilmed image could be placed.

For decades, aperture cards were the preferred method of data storage for many industries due to their ability to be easily read, indexed, stored and quickly retrieved by computer. With the arrival of digital technologies and the internet it was possible to immediately transfer information across the globe - the need to send physical copies of the cards was becoming redundant.

With all the advantages digital media has over microfilm organisations are now converting their aperture cards in to electronic versions. This process, if completed correctly, offers unlimited sharing, access and back-up possibilities - it will transform your aperture card library and how you manage the information.

FINDING THE RIGHT PROVIDER

SunRise have over 2 decades of experience working with aperture cards. We not only scan all forms of microfilm we also manufacture market leading scanners that are used by more organisations and scanning bureaus than any other scanner in the world. Couple this with our professional, friendly approach and we guarantee we can provide you with the right solution that works with your budget, timescales and operational needs.



APERTURE CARDS - THE IMPORTANCE OF IMAGE QUALITY

Predominantly the information stored on an aperture card is usually of some type of reference document, such as an engineering drawing or plan. Due to the amount of detail these images hold it is essential to scan at an optimal image quality to ensure an accurate digital copy. It's all about resolution!

IMAGE RESOLUTION

Resolution is a measurement of how many pixels a scanner can sample in a given image and is measured in a grid. For example, a chessboard with eight squares along each side has a resolution of 8 x 8. If the chessboard had 300 squares along each side, its resolution would be 300 x 300. If scanning an image at a resolution of 300 - that scanner samples a grid of 300 x 300 for every square inch of the image, a single square on the grid is known as a pixel. A one inch grid with 300 x 300 resolution contains 90,000 individual pixels. With a higher resolution scan you get more pixels, with a lower resolution scan you get less.

TRUE OPTICAL RESOLUTION SCANNING

A scanner's optical resolution is determined by how many pixels it can actually see. For example, a scanner using a scanning head with 300 sensors per inch, will sample 300 dots per inch (dpi) along the width of the image. To scan along the length, it will move the scanning head down the image, pausing 300 times per inch, to scan 300 dpi along the length. Each pixel captured is a true digital copy of what the scanner head saw on the original aperture card image.

INTERPOLATED RESOLUTION

Unlike Optical Resolution scanning an interpolated resolution measures how many pixels the scanner can guess at. Through a process called interpolation, the scanner turns a 300 x 300 dpi scan into a 600 x 600 dpi scan by inserting new pixels in between the old ones, and guessing at what light reading it would have sampled in that spot had it been there. The Interpolation scanning process almost always diminishes the quality of the scan, and should therefore be avoided.



Image quality is just one technical aspect in the process of converting aperture cards to a digital format. There are a number of technically based decisions that need to be made - decisions that will ultimately impact the success of the project. SunRise will guide you through every step and explain the various options allowing you to make informed decisions.

A QUALITY SOLUTION

SunRise are ISO 9001:2008 accredited and we follow strict procedures when handling your aperture cards and are committed to the continual improvement of our services. We perform checks during the scanning process to ensure we meet the highest levels of accuracy and quality.

A BESPOKE SOLUTION

Every microfilm conversion project has unique elements and varying requirements meaning the solution is always bespoke. Whatever your film format, we can help:

- ◆ 16mm (simplex or duplex); 35mm roll film
- ◆ Jacket fiche (standard 16m, 35mm or combination fiche)
- ◆ Diazo fiche
- ◆ COM (Computer Output to Microfilm) fiche
- ◆ Aperture cards

We can digitise your microfilm in to various formats:

- ◆ JPEG
- ◆ PDF
- ◆ Multi page TIFF
- ◆ Searchable PDF
- ◆ Text

Sunrise can deliver images in the following methods:

- ◆ CD or DVD
- ◆ USB Flash Drive
- ◆ Email
- ◆ Secure FTP
- ◆ Via an ECM system

A SOLUTION YOU CAN TRUST

At SunRise we take security seriously we take every precaution to ensure we protect your information in both physical and digital form. We constantly review our processes and security measures to guarantee customer peace of mind.

SunRise are committed to offering a fully confidential service. The security and confidentiality of our clients' information is at the heart of everything we do. Whether it is intellectual property or sensitive client information protection of that information is paramount.

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All scanning work is completed at our Wallington site which affords the following security features:

- ◆ 24/7 on-site manned security
- ◆ 24 hour CCTV surveillance
- ◆ Our scanning bureau is located within an internal secure facility, which provides a second layer of security
- ◆ Our storage servers have no connection to the internet or external networks, ensuring ALL stored data is totally secure
- ◆ All data is returned to you by hand on password encrypted DVD, external USB HDU, USB sticks, via secure FTP or directly in to your ECM or document management system

THE SUNRISE APERTURE CARD SCANNER

SCANNING THE WORLDS MICROFILM

SunRise Imaging is the international market leader for high performance microfilm digitising systems. SunRise scanners are used in more libraries, government agencies, state archives, service bureaus and corporations than any other scanner in the world.

SCAN FEATURES

Wide range of film Reduction Ratios.

Low reduction (7x) micro film images are large, are scanned at high speed. High reduction (70x) micro films are very small, are scanned at low speed.

STANDARD MICROFILM SIZES

Standard 80 column Aperture Cards are supported. Scan large images (Engineering Drawings), or several images on a grid.

STANDARD HOLLERITH TYPES

57 columns to left, 8 columns to right of image.

Use Hollerith fields in naming files.

FILM TYPES

80 column Hollerith card

Single image pocket

Multiple T-card pocket

AUTO FEED

Load hundreds of cards into the feeder, and the scanner runs unattended. Scan rate of 10 cards per minute.

OPTICS

High Quality Nikon 60mm Macro lens

Extremely sharp focus

F2.8 to F32 Depth of field control

Film Shutter insures film is flat

Accepts Extension Tubes to lower Reduction Ratio



RELEASE YOUR INFORMATION

Set up in 2004, SunRise EMEA has grown and developed into a key partner for businesses looking to scan just about any type of document, books, maps, plans, film media, from 16mm & 35mm roll film, fiche, both COM, Jacket and Diazo and of course Aperture cards. With years of expertise, knowledge and know-how SunRise can provide scanning services for any size of scanning project, whether it be a single box of documents, to a full conversion of your organisations paper or film libraries.

For more information on our services and how SunRise Imaging can effectively manage the conversion of your information into digital assets, contact us by visiting: www.sunriseimaging.co.uk, call us on **+44 (0) 20 8255 2011** or via email: info@sunriseimaging.co.uk

