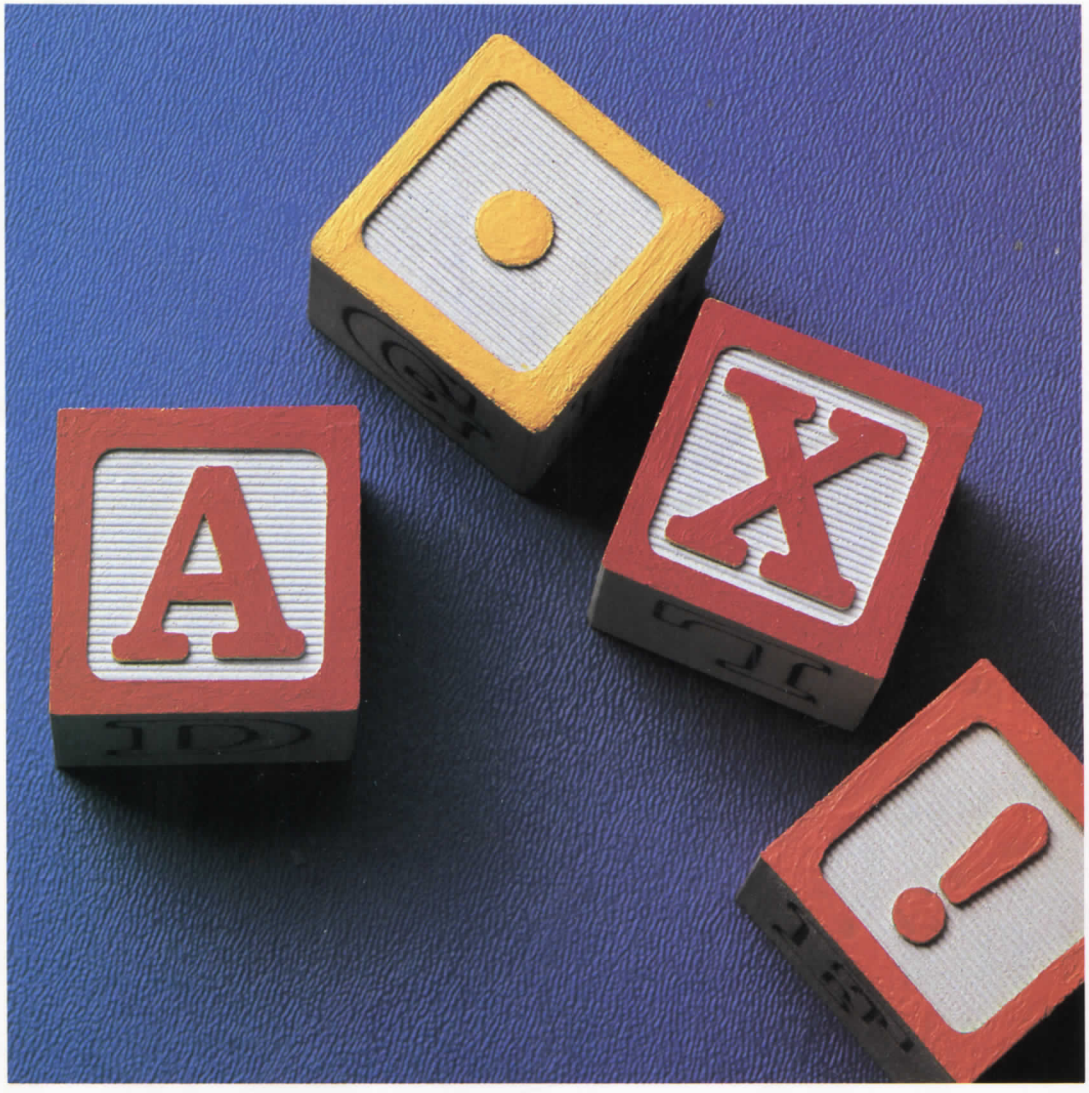
T R U V E L



The TruScan TZ-3. Scanning from A to X.

Archiving to X-rays...and everything in between

Whether you need to archive and retrieve documents, or transmit X-rays over telephone lines for real-time, on-line conferencing, Truvel's TZ-3 series scanners will help you get the job done.

Or maybe your applications are in graphic design, PCB design, printing, or publishing, and you're a professional looking for a scanner that produces professional results, Truvel has the answer.

The list of applications is extensive, each benefits from an impressive list of practical, state-of-the-art features.

Open Flatbed

Face up scanning on an open bed. TZ-3 scanners give you more set-up control. You can see what you're doing so you can easily position, reposition, compose, or crop.

Compared to less versatile, enclosed bed systems, the open flatbed design of the TZ-3 lets you scan single sheets or bound documents as well as 3D objects up to 2 inches in height on the large 14½x24 inch scan table. The active scan area of up to 12x17 inches is large enough for B-size engineering drawings or a two-page spread.

If you need guidelines for exact alignment or if your original is curled, torn, or wrinkled, you can accurately position, align, and hold your document flat with a Truvel Picture Pac.

Unique Tower Design

High-quality image capture. The Truvel TZ-3 tower design is similar to that of a photographic copy stand. The "camera," a charge-coupled device (CCD) and compensation electronics; 3:1 zoom lens; and lighting system are integrated into the scanning tower. Two broad-spectrum fluorescent lamps are mounted at 45 degrees to the subject, providing non-glare, shadow-free scans of your documents and 3D objects.

Archiving and retrieval

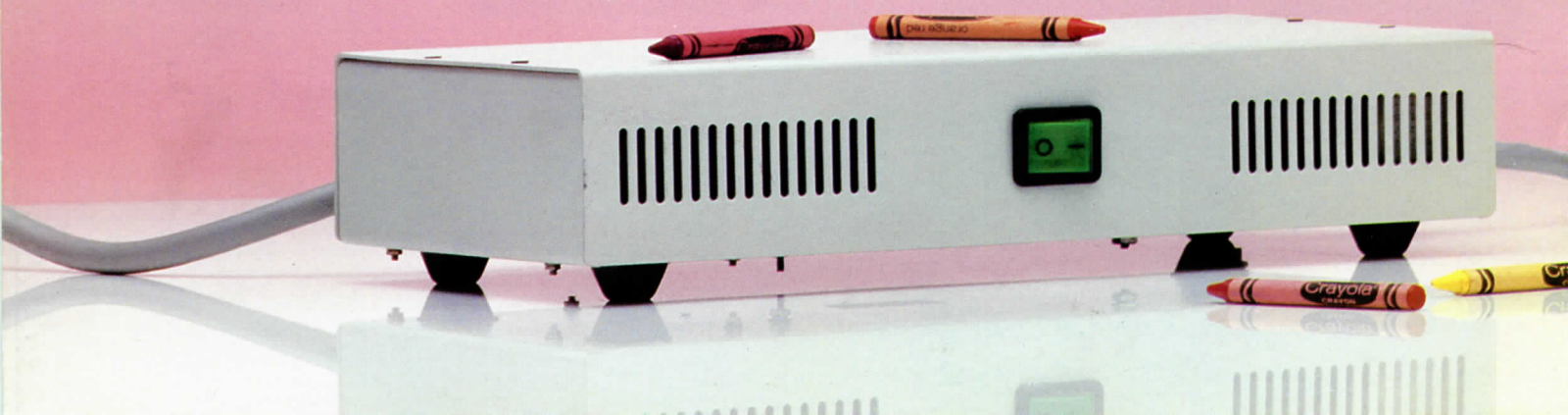
Unique tower design

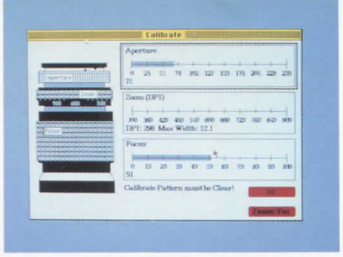
The CCD contains an array of 3600 cells x 1 cell. As the tower moves, the CCD captures and digitizes 3600 picture elements (pixels) for each scanline.

The CCD, lens, and lights move together when scanning. This design approach prevents optical distortion because the CCD always "reads" through the central portion of the optical system for consistent, edge-to-edge sharpness. Light is highly concentrated for maximum illumination of each scanline. Equally important, the CCD scans through the same portion of the lens at all times, thus eliminating the area distortion associated with other types of tower designs.

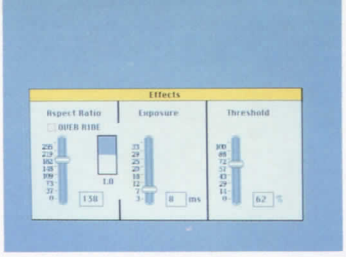
256 Levels of Gray and 24-Bit Color

High resolution in black-and-white or color. The scanner senses the light level of each picture element and translates it into the precise level of gray within the 256-level scale. When you select a scan mode from the TZ-3 menu, the bit-map can be built in line art, halftone, or 4, 16, or 256 gray-scale levels.





Real-time feedback



Easy-to-use menus

X-ray and transparency scanners

The TZ-3 is so sensitive that it picks up subtle details, which are often lost, in the shadow and highlight areas of continuous tone originals. Grayscale levels can also be important when you scan line art. Even though pixels in a typical graph or drawing tend to be bi-level or black-and-white, jaggies can be a problem. But, if you scan line art at 256 levels of gray, as though it were a grayscale image, you get greater contrast variations without jagged lines.

TruScan color scanners generate 24-bit color—256 values for each red, green, and blue, a palette of over 16 million colors. The contrast levels (gain) for each color are under your control; you can set each one independently or rely on the default settings.

Precise Aspect Ratio Control

Variable aspect ratio. Dots per inch (dpi) can be varied independently in either the horizontal or vertical axes without using a bitmap editor. The length of the scan area is controlled by the tower speed selection you make. The width of the scan area is also under your control with zoom adjustments. At 300 dpi you can adjust the width and length to any dimensions within the 12 x 17 inch active scan area. When zooming to smaller document sizes, resolution increases to a maximum of 3 times, or up to 900 dpi for a 4-inch wide scanline.

Variable pixel aspect ratio is especially useful for resizing artwork, creating special effects, and compensating for monitors and output devices that do not have a one-to-one aspect ratio.

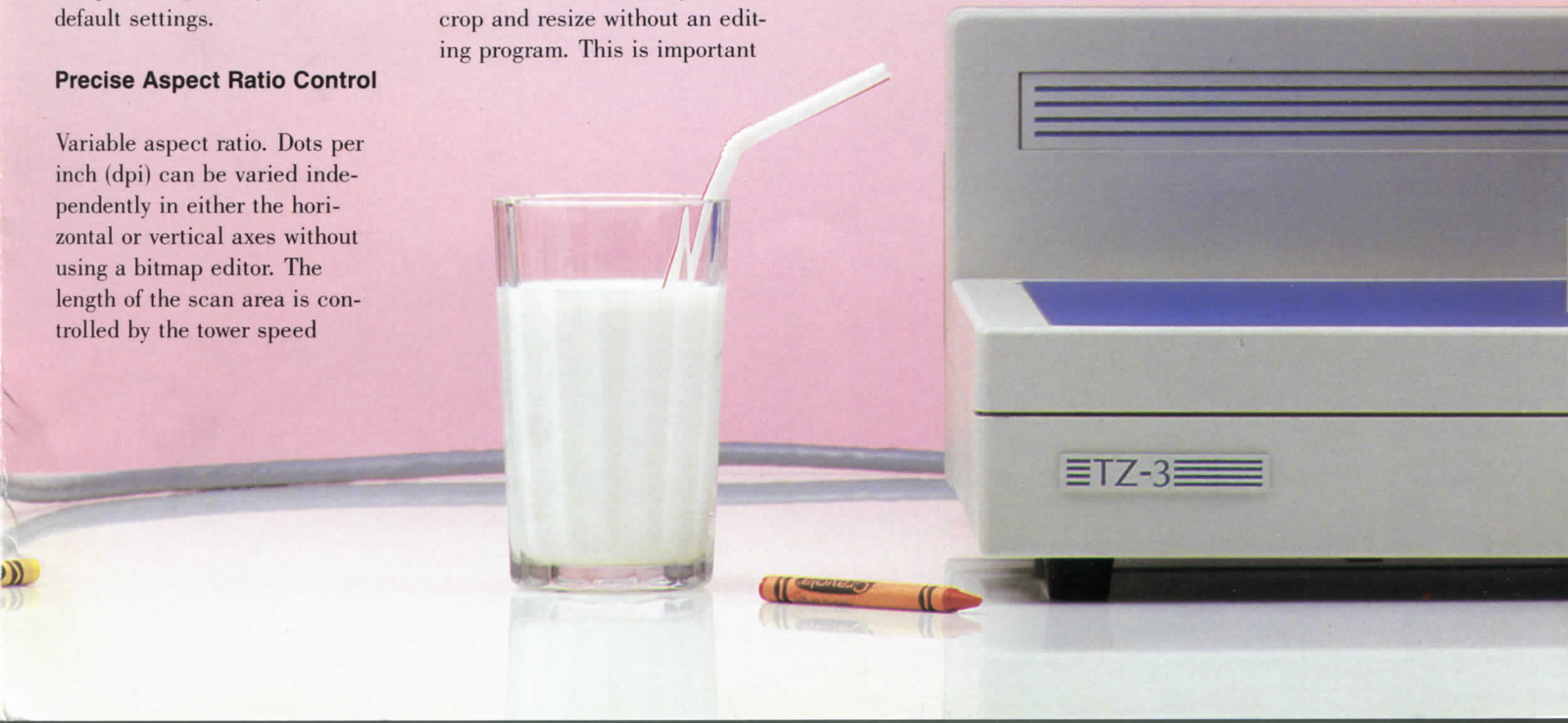
True Bitmap

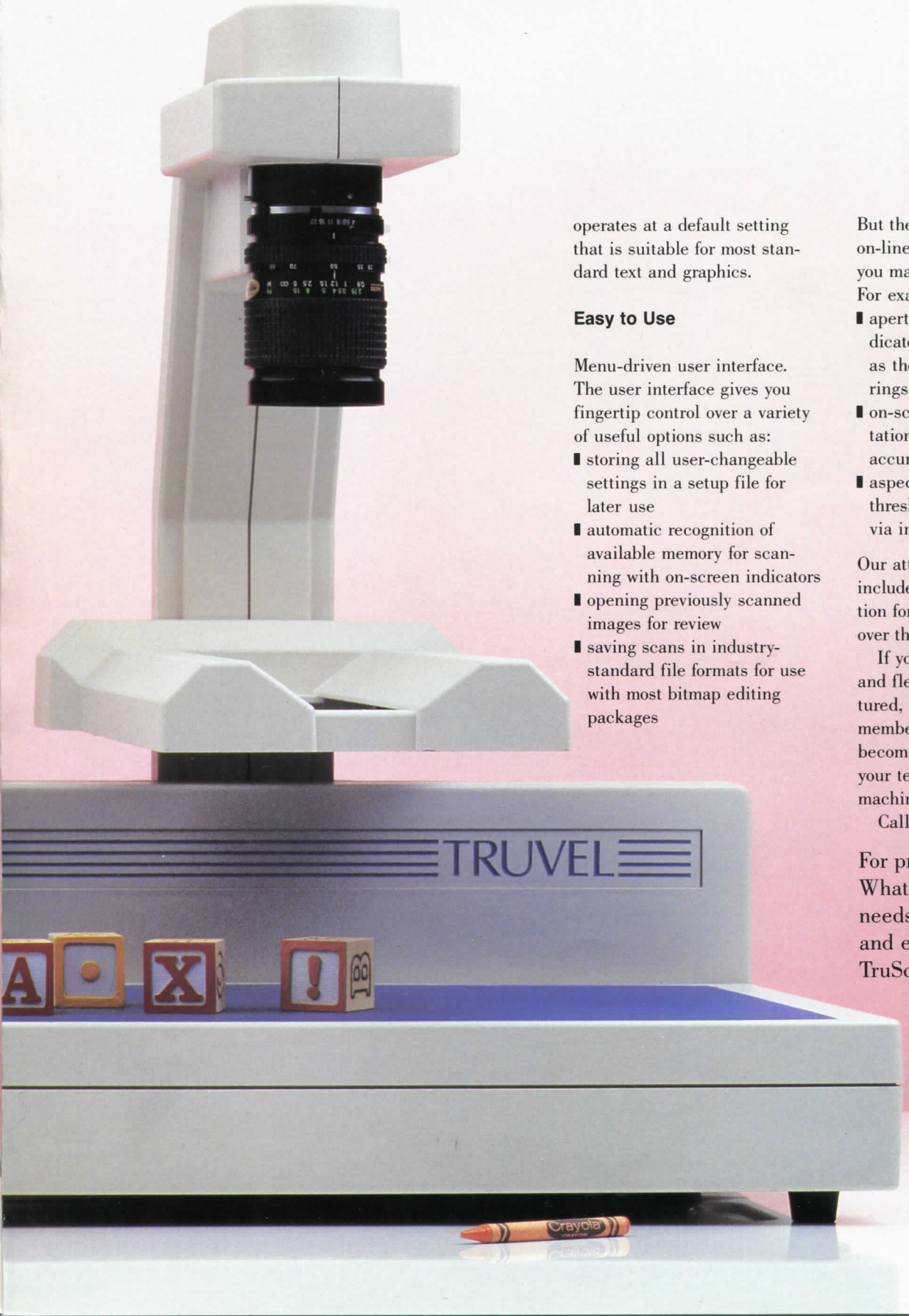
No artificial pixels or loss of detail. Prior to a scan, you can crop and resize without an editing program. This is important because some editing programs remove or insert pixels as you resize images with the result that detail is lost. The bitmap created by the TZ-3 during the scan contains the precise information necessary for your desired output. Because of this, you can capture the size and shape for output of highly detailed images—text, graphics, or objects. For most applications, they are then ready for use, unedited. Once digitized, you can input this data into information systems and communications networks without having to resize the bitmap.

Saved images can be exported to almost all graphics programs that edit bitmapped images. TIFF, PCX, PICT, Macpaint, and other file formats are supported by Truvel software.

Thresholding

Control over black level. Paper color, ink color, and the age of a document can adversely affect the overall contrast of the scanned result. The TruScan TZ-3 has a fully programmable override that lets you make 255 adjustments between black and white. This means that if you have a faded original you can set the threshold higher. On the other hand, if your original has a background that is too dark or contains stains or smudges that you want to fade out, you can lower the threshold. If no adjustments are made, the TZ-3





operates at a default setting that is suitable for most standard text and graphics.

Easy to Use

Menu-driven user interface. The user interface gives you fingertip control over a variety of useful options such as:

- storing all user-changeable settings in a setup file for later use
- automatic recognition of available memory for scanning with on-screen indicators
- opening previously scanned images for review
- saving scans in industry-standard file formats for use with most bitmap editing packages

But there's more—you have on-line feedback of changes you make to your scan settings. For example,

- aperture, zoom, and focus indicators update on the screen as their corresponding lens rings are changed
- on-screen scan bed representation assists in making accurate crops
- aspect ratio, exposure, and threshold settings are made via indicators on the screen

Our attention to detail even includes automatic compensation for variation in contrast over the life of the lamps.

If you need the versatility and flexibility of a fully featured, professional system, a member of the TZ-3 family will become as indispensable as your telephone, FAX, and copy machine.

Call, FAX, or write us.

For professional results. Whatever your scanning needs... A to X... and even Y and Z. The TruScan TZ-3.

An overview

Truvel Corporation is a developer and manufacturer of computer peripheral equipment, featuring the TruScan TZ-3 series of high-performance, digitizing image scanners.

TruScan reflective, X-ray, and transparency scanners offer high-quality image reproduction, fast scanning speed, and extensive composition flexibility, with both black-and-white and color capabilities.

The TZ-3 answers professional imaging requirements with resolutions from a true optical 300-900 dots per inch, 24-bit color yielding over 16 million colors, up to 256 levels of gray, and a variety of user-selectable options.

The TZ-3 has been successfully integrated in high-end OEM environments where the features of the TZ-3 and reliability are a must.

With the Truvel GPIC (Graphics Processor Interface Card), TZ-3 scanners interface to the Apollo, and the IBM PC/XT/AT and most compatibles. The Truvel SCSI (Small Computer System Interface) unit interfaces the scanner to the Macintosh II, Sun, and other computer systems.

TruScan TZ-3 Series Product Line

TZ-3
Black-and-white scanner

TZ-3C
24-bit color scanner

TZ-3BWC
Combination black-and-white/ color scanner

TZ-3X
X-ray scanner

TZ-3T
Black-and-white transparency scanner

TZ-3CT
Color transparency scanner

TZ-3BWCT
Combination black-and-white/ color transparency scanner

SCSI Unit
SCSI port interface

GPIC
Parallel interface card

Picture Pac
Removable unit holds pictures flat, assists in document alignment, and permits pre-scan set-up

TRUVEL

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