

# INCOMPARABLE.

Pigments and pixels can both arrest an instant for eternity — but, their comparison fails after that. So too, digital image processing and computer graphics. Some may claim to give you both in the same system, but with today's technology, it can't be done well. Either, it's a digital image processing system or a graphics system. At COMTAL, we provide certain graphics capabilities, but not at the expense of the image processing architecture.

Also, image processing is not the same as image display. Some "image processors" are little more than a refresh memory pumping data through a display buffer. And if it's a software-based system, forget real-time, interactive operations.

COMTAL is the expert in digital image processing systems — stand-alone, real-time, interactive systems that have no equal.

## Real real-time.

When we describe image processing operations as real-time, we mean it. Our real-time functions execute in 1/30 of a second! Even our "near" real-time is only 2/30 of a second. To be a truly interactive system, it must run at 30 frames a second or faster — and we do!

## More pixel power.

Since the inception of digital image processing, COMTAL has set the pace. We continue to offer the



Image of Mona Lisa processed by Combined Logic Research, Hollywood, CA, on a COMTAL Vision One/20 using histogram equalization and function memory modifications for brightness, contrast and color correction.

system that is standard... a built-in controller for memory... independent, real-time scroll and zoom of images... real-time arithmetic functions... real-time convolution with real-time coefficient updates... real-time classifier for four bands of multispectral data... real-time histogram... and many more advanced features.

## More choices.

No one gives you the choices that COMTAL does. From standard systems to advanced engineered systems, you can be confident that COMTAL will meet your specific needs: (See Product/Feature Matrix)

## More Experience.

No one has COMTAL's ten years' experience, and no one offers the level of support we do. We build state-of-the-art while others have it on their drawing boards. We support our systems with the full resources of 3M, a worldwide service organization, and a full on-site acceptance-testing procedure. It's what you would expect from the innovative leader.

## Incomparables.

Mona Lisa's elusive smile defies comparison. It is quintessential art. In image processing, COMTAL is the state of the art. We invite your



4x zoom using pixel replication

most sophisticated systems commercially available. We offer standard systems at unrivaled prices. We offer features that no one else can offer:

- **Continuous Zoom** — image magnification from 1x to 512x in 2/30 of a second; various interpolation techniques available.
- **Virtual Refresh Memory** — a Winchester disk-based system that stores up to 300 megabytes — eliminates the need for large RAM.
- **Full-Resolution Graphic Planes** — 512<sup>2</sup> or 1024<sup>2</sup> graphic planes can be manipulated in 1/30 of a second.
- **Image Combination** — two

	Image Resolution and Bit Depth	Number of Images (i) & Graphics (g) In Typical Configuration	Function Memory Processing	Small Area Processing	Real-Time Arithmetic	Dual User Capability
Image Display/Processing	8000-R Model 30	512 <sup>2</sup> x 8 3i, 4g				
	8000-R Model 65	1024 <sup>2</sup> x 8 3i, 4g				
Stand-alone Image Processing	VISION ONE/10	512 <sup>2</sup> x 8 4i, 4g				
	VISION ONE/20 Model MR	512 <sup>2</sup> x 8 7i, 8g				
	VISION ONE/20 Model M10	512 <sup>2</sup> x 8 15i, 8g				
	VISION TEN/24	1024 <sup>2</sup> x 8 4i, 8g				
	VISION ONE/12	256 <sup>2</sup> x 512 <sup>2</sup> x 12 3i, 12g/1i, 4g				
Image Input	Digital Video Input Processor	Acquires and digitizes filmed images illuminated by a light table; integrates as many as 256 frames; images can be transferred to a VISION ONE/20 or host computer				

250K byte matrices can be combined in real time through arithmetic functions; output can be interactively modified in real time. ■ **Mapper** — image rotation, axis translation, scaling, and other spatial alterations in less than a second. ■ **Freeze-Frame** — any displayed image can be captured in real time and stored in memory. And, more... like an operating

comparisons. But, measure for measure, we think you'll judge us incomparable. COMTAL Corporation, a subsidiary of 3M, 505 West Woodbury Road, Altadena, CA 91001 Telephone (213) 797-1175.

# COMTAL