

SIGGRAPH '85

One-day Course

# VLSI for Computer Graphics

July 23, 1985  
San Francisco, California

<u>Subject</u>	<u>Speaker</u>
1. Introduction: VLSI for beginners	Henry Fuchs
2. Evolution of IC Technology in Flight Simulator Visual Systems	Robert Schumacker
3. The Present and Future of Commercial Market Graphics IC's	Karl Gutttag
4. VLSI for High Performance Graphics Workstations	James Clark
5. Computer Structures & VLSI Design for Curve-Solid Classification	Gershon Kedem
6. VLSI for Graphics Input Devices, "Smart" Displays, and Logic-enhanced Raster Memories	Henry Fuchs

## Contents

- Bishop, Gary and Henry Fuchs, "The *Self-Tracker*: A Smart Optical Sensor on Silicon," Proceedings of the 1984 Conference on Advanced Research in VLSI, MIT, Artech House, Dedham, MA, January 1984, 65-73.
- Clark, James H., "Designing Surfaces in 3-D" Communications of the ACM, Vol. 19, No. 8, August 1976, 454-460.
- Cosman, M. and R. Schumacker, "System Strategies to Optimize CIG Image Content," Proceedings of the Image II Conference, Scottsdale, Arizona, 10-12 June 1981.
- Davis, Dwight B., "Chip-based Graphics," High Technology, Vol. 5, No. 2, February 1985, 46-53.
- Demetrescu, Stefan, "High Speed Image Rasterization Using Scan Line Access Memories," 1985 Chapel Hill Conference on Very Large Scale Integration, 1985, 221-243.
- Glassner, Andrew and Henry Fuchs, "Hardware Enhancements for Raster Graphics" to appear in Proceedings of the NATO Advanced Study Institute on Fundamental Algorithms for Computer Graphics, Ilkley, Yorkshire, England, April 1985.
- Guttag, Karl M., "The Present and Future of Commercial Market Graphics I.C.'S."
- Guttag, Karl, "Video Controller and Dual-port RAM Break Graphics Bottleneck," Integrated Circuits Magazine, Vol. 2, No. 4, 1985, 47-54.
- Guttag, Karl, "Semiconductors to Support Advanced Bit-mapped Graphics," Computer Graphics '85, Vol. 3, April 1985.
- Kedem, Gershon, "Computer Structures & VLSI Design for Curve-Solid Classification."
- Kedem, Gershon and John L. Ellis, "Computer Structures for Curve-Solid Classification in Geometric Modeling," Technical Report TR84-37, The Microelectronics Center of North Carolina, September 1984.
- Poulton, John, Henry Fuchs, John D. Austin, John G. Eyles, Justin Heinecke, Cheng-Hong Hsieh, Jack Goldfeather, Jeff P. Hultquist, and Susan Spach, "Pixel-Planes: Building a VLSI-Based Graphic System," 1985 Chapel Hill Conference on Very Large Scale Integration, 1985, 35-60.
- Schumacker, Robert A., "A New Visual System Architecture," Proceedings of the Second Interservice/Industry Training Equipment Conference, Salt Lake City, Utah, 18-20 November 1980.
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