

THE COMPUTER AND THE IMAGE

THREE DIMENSIONAL EXHIBITS

TITLE	DESCRIPTION	SOURCE/STATUS
Jacquard looms	19th century Jacquard sales model illustrating punched card principle-	in museum collection
Rand Tablet	early graphical interface (not working)	requested from Willis Ware, Rand
Project Sketchpad	simulation of TX-2 running Ivan Sutherland's Sketchpad program	project for summer intern may require prompting screen, hardware not identified
early pointing devices	mice, track balls, light pens, joysticks, tablets, digitisers	Doug Ross, Doug Engelbart & others
MIT ESL 'Kludge'	crystal globe used to control cursor movement	John Ward, MIT has agreed to loan
Whirlwind Williams tube	transparent glass storage tube with grid visible - same principle as storage tube displays	to be donated by Bob Everett
ARDS display	static display of first commercially available storage tube display	ARDS located and offered by Gordon Pask, Architectural Association, London
first storage tube as used in storage oscilloscopes	Tektronix 564 5" tube	Tektronix confirmed

(2)

17  
2 bits

Chuck Masters / Gould DeLuza  
Armin Miller / Data Copy

raster technology	opened up TV tube	NEC?
interactive video disc	interactive file of Picasso works or American architecture	MIT Media Lab, Patrick Purcell to respond
other display technologies	liquid crystal, gas plasma	IBM, Kingston for plasma Sharp for LCD
large CAD-designed object	fighter aircraft wing designed by computer accompanied by computer design plots. Note access constraints.	Bob Everett of Mitre to respond
small CAD-designed part	gas turbine blade from GE approx 5"x2"x1"	GE approached via John Hsian and Bill Blundell. Object and video offered
circuit design before CAD	pencil & vellum, french curves and PDP8 module; Texas Instruments glass circuit layers for ASC - the limit of hand-drawing	in CM collection
CAD in VLSI	masks, chips under microscope and large colour plot of chip layout: plot 30'x8' Apollo running Mentor Graphics software of VLSI layout	Mike Brophy at DEC Hudson facility or IBM Essex Junction, VT 512k RAM colour Versatec plot; Apollo DN300 promised; Mentor Graphics to respond
CAD program	Ontario Science Center interactive program to design a car; user selects door, front, back etc and program computes drag. 3' square approx	OS to check hardware requirements at Ont Sci Ctr July
computer-aided drafting for sculpture	plotter scribing sheet to be folded into sculpture; CRT shows options to select	offered by Ron Resch; to be assessed for viability as a working exhibit

CAD in architecture	visualisation of new building in Boston: Dewey Square development; fly around site, show subway, go into building, change perspective	Computervision to respond software offered by Jung/Brannen Bruce Forbes
printer	working printer outputting scene from window; paper wound up near ceiling approx 4'x3'	Dataproducts printer offered, awaiting precise requirements; data to be input
image-processing	PDP-11 based MIPS system from USGS allowing visitors to manipulate Landsat and Voyager images. Also needs 30Mb of disc, tape drive and Grinnell colour display approx 5ft square	software available from USGS, Flagstaff, AZ; positive response from Grinnell; PDP11-23, disc and 1600bpi tape unit available from DEC; software modification required; Landsat TM and Voyager (Saturn) data supplied by NASA.
drawing instruments	set of drawing instruments, pantograph, rules	computer museum collection
plotter	pen plotter drawing Boston scene from window and other images related to adjacent displays approx: 3'x2'x3'6"(h)	HP 7585A requested; HP to respond; tape system and possible programming and demonstrator required
fractals	interactive display of fractal curves and surfaces to be devised with B Mandelbrot possibly based on IBM PC-XT	awaiting confirmation from and Mandelbrot
interactive simulation	flight simulator on IBM PC or other micro eg microsoft's program. to be decided	

LOGO	interactive logo machine	Papert or Atari?
pan and zoom	hardware allowing panning and zooming around large image. Possibly combined with above image-processing demo.	requires hardware eg Lexidata hosted by VAX
raster scan	demonstration of how image is built up on raster type displays: slowed down sweep of beam and slowed down fading of phosphor. Simulated on a micro? Programming project	requires large screen
resolution	'Discernability': digitised image of visitor's face used to alter spatial, contrast and time resolution	Ed Tanenbaum; exhibit ordered
three-D imaging	allow real time 3d interaction either with varifocal vibrating mirror display or with vector system with perspective hardware	approach Trivision Dick Shorthill for mirror, Adage RDS 3000 donation agreed; software to be donated by Henry Fuchs and the Computing Dept at UNC <u>but</u> requires UNIX (preferably Berkeley) on VAX; Larry Sher, BB&N consulting. E&S PS 300 or colour system requested; awaiting response

zoetrope	cylindrical slitted wheel with images inside. User turns handle to see movement. Could be a phenakistiscope or other similar device. approx 3ft square	requested from George Eastman House, Rochester. Awaiting reply.
PDP 1	PDP 1 running spacewar on a demonstration basis. size:	computer museum collection- Shag Graetz to get program up and organise original joystick controls
spacewar	micro or VT125 or other long-persistence phosphor screen eg HP 3500?	program to be written under supervision of Shag Graetz by summer intern
video game	slowed-down altered video game showing process-animation and interaction	either George Golson or Dave Nutting; requires some reprogramming and hardware awaiting meeting with Golson and response from Nutting
electro-mechanical arcade game	opened up electromechanical pin-ball game	
paint system	advanced paint system demonstrated by skilled operator to synthesise scene out of window and alter existing image. Approx 5ft square If not available, use Macpaint interactively on Apple Macintosh	requested from NYIT, Louis Schure; awaiting response
unallocated hardware	Tektronix scope; possibly use in Ontario CAD program  Symbolics computer	