architecture of intended computer graphics developement project 1984

(as a consequence of IBM sponsorship of PC equipment and Dutch Ministery of Culture funding of the interactive project 'Invisible Cities'.)

basic hardware configuration:

- IBM PC XT
- image buffer/graphics processor
- high res colour monitor
- video digitizer
- RGB to PAL video sync
- colour printer and video printer
- interactive controls, and graphics tablet
- control of multi-track audio system

main facilities and functions:

1 - implementation of 'paint' type image creation/processing facilities,
from manual input and video digitizing,
resolution approx. 512 x 512
4096 displayable colours

with features equivalent to the EASEL/LUMENA software package

2 - hardware implementation of pan and zoom facilities in real time

3 - intelligent access to store of created images, enabling the implementation of a 2.5 dimentional image architecture (see 'Invisible Cities' for one such architecture)

4 - creation of a graphics to audio interface, so that the display of images will be linked inteligently to the control of multiple audio cassette decks, and will control tape start, stop, rewind, and audio volume

5 - creation of specific new or hybrid types of interactive controls for the user

6 - various 'recording' techniques e.g. colour paper printer, video printer for still images and onto movie film for the creation of non real time animation, and recording onto video tape

Later stage developements:

- 3D graphics package (integrating 'paint' facilities)
- advanced interactive animation facilities (both non real time and real time) e.g. 'plastic deformation'
- advanced intelligent access of very large graphics data bases
- new forms of graphics/audio interaction incl. intelligent access of digital audio data bases, and synthesis of sound from graphics data