

Title (en)
Improvements in computer graphics systems.

Title (de)
Graphische Computersysteme.

Title (fr)
Systèmes graphiques à ordinateur.

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Application
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Abstract (en)
A multi-tasking, multiple windowing computer graphics facility which does not place undue burdens upon the processing power of its host computer comprises a multi-planar memory to which data defining windows to be displayed in viewports on a display screen can be written, and a plurality of viewport controllers each individually associated with a respective one of the memory planes and capable of extracting data from each of a plurality of windows defined in its respective memory plane for effecting a corresponding display in any desired viewport location on the display screen. For the management of overlapping viewports, the window-viewport assignments which determine the display locations of viewports on the display screen include viewport priority indications which are taken into account in the reading out of data from the several planes of the multi-planar memory so that overlapping viewports are handled automatically and can appear transparent or opaque relative to one another as required. Windows can be created of any size and any number of planes deep (up to the available depth of the display memory), and opaque or transparent images can be moved freely around the display screen without requiring modification of the data in the memory by flexibly mapping windows in the display memory to viewports on the screen. A VRAM (video RAM) multi-planar memory is used and the viewport controllers are configured as modular VLSI components which can be cascaded for addressing any number of memory planes.

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G09G 1/00

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CPC (source: EP)
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Cited by
US5999191A; US9092128B2; USRE45630E; EP0840277A3; EP0344082A3; USRE41922E; EP0459711A3; EP0483576A3; US8724029B2; EP0840276A3; EP0883292A3; GB2296641A; US5854628A; GB2296641B; EP0439873A1; US5293470A; EP0605945A1; US5651107A; US6694486B2; US5463728A; EP1271409A1; US6058464A; EP0798690A3; US6025840A; US6384840B1; WO9714133A3; USRE44241E; US6310657B1; US6452641B1

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