

Pin	Keyboard Port	Mouse Port	Keyboard/Mouse Port
1	Keyboard Data	Mouse Data	Keyboard Data
2	Not Connected	Not Connected	Mouse Data
3	Ground	Ground	Ground
4	+5V DC, 275 mA	+5V DC, 275 mA	+5V DC, 550 mA
5	Keyboard Clock	Mouse Clock	Keyboard Clock
6	Not Connected	Not Connected	Mouse Clock

Figure 0.1: PS/2 Connector pin-out. This is a view of the PS/2 socket (female connector on mainboards) from the front.

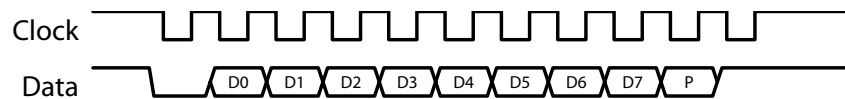


Figure 0.2: Operation of the PS/2 keyboard reader state machine.

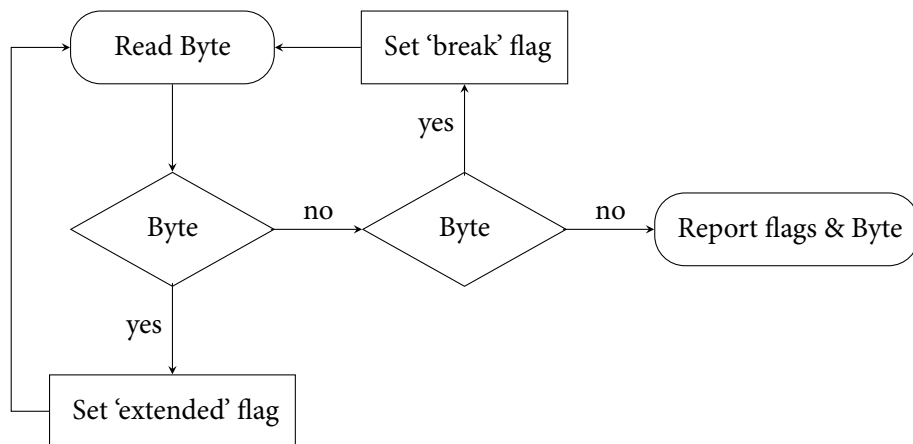


Figure 0.3: Operation of the PS/2 keyboard reader state machine.

Foo bar.

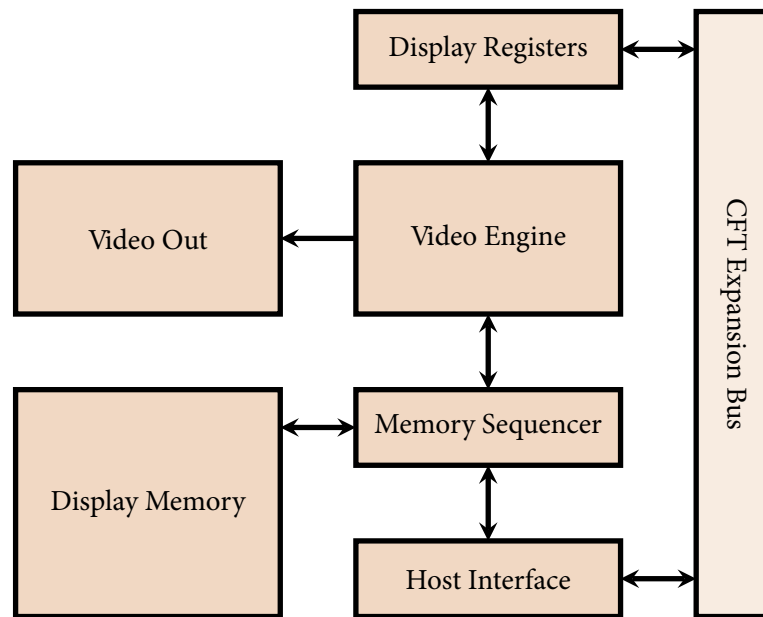


Figure 0.4: High Level Block diagram of the VDU card.

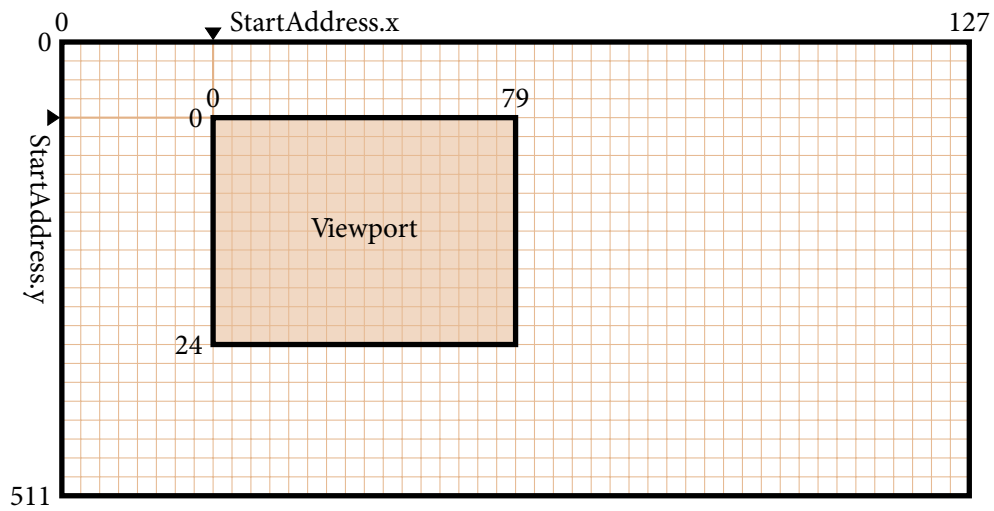


Figure 0.5: Virtual Screen and Viewport. The viewport, which is what the physical screen displays can be moved arbitrarily around the virtual screen. Please note that the diagram is not to scale.

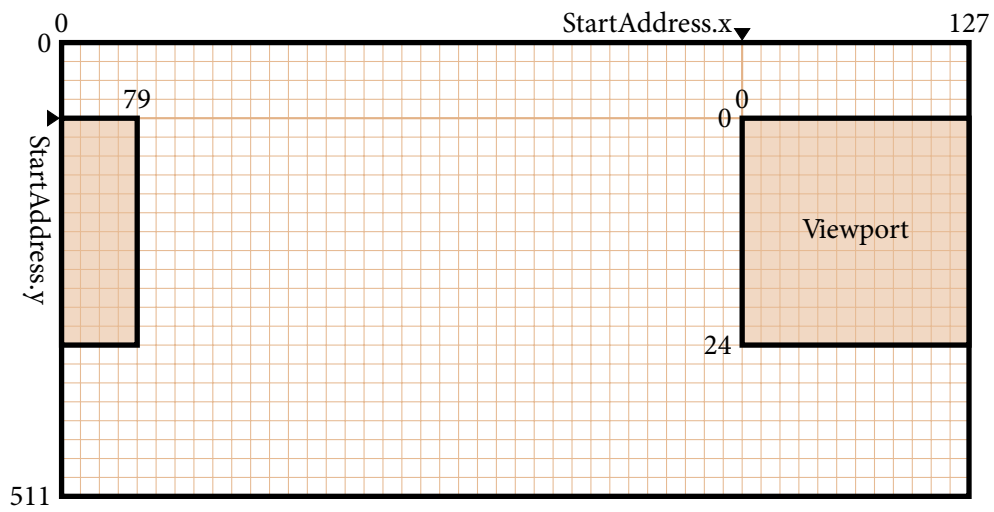


Figure 0.6: Co-ordinates are calculated modulo 128 horizontally, and modulo 512 vertically. Here, the viewport wraps around to the left of the virtual screen, displaying two disjoint sections of the display memory. The viewport also wraps around the bottom, which makes it display four disjoint sections of the virtual screen.

	0	1	2	3	4	...	125	126	127
0	0000	0001	0002	0003				007E	007F
1	0080	0081	0082						00FF
2	0100	0101							
3	0180								
4									
...									
509									
510	FF00								FF7F
511	FF80	FF81						FFFE	FFFF

Figure 0.7: Plane organisation and addressing.

0. #000000	1. #550000	2. #AA0000	3. #FF0000
4. #005500	5. #555500	6. #AA5500	7. #FF5500
8. #00AA00	9. #55AA00	10. #AAAA00	11. #FFAA00
12. #00FF00	13. #55FF00	14. #AAFF00	15. #FFFF00
16. #000055	17. #550055	18. #AA0055	19. #FF0055
20. #005555	21. #555555	22. #AA5555	23. #FF5555
24. #00AA55	25. #55AA55	26. #AAAA55	27. #FFAA55
28. #00FF55	29. #55FF55	30. #AAFF55	31. #FFFF55
32. #0000AA	33. #5500AA	34. #AA00AA	35. #FF00AA
36. #0055AA	37. #5555AA	38. #AA55AA	39. #FF55AA
40. #00AAAA	41. #55AAAA	42. #AAAAAA	43. #FFAAAA
44. #00FFAA	45. #55FFAA	46. #AAFFAA	47. #FFFFAA
48. #0000FF	49. #5500FF	50. #AA00FF	51. #FF00FF
52. #0055FF	53. #5555FF	54. #AA55FF	55. #FF55FF
56. #00AAFF	57. #55AAFF	58. #AAAAFF	59. #FFAAFF
60. #00FFFF	61. #55FFFF	62. #AAFFFF	63. #FFFFFF

Figure 0.8: The 64-colour palette. Each colour swatch is numbered as on the CFT, and includes its X11-style 24-bit hexadecimal RGB triplet for reference. Please note that colours may render slightly differently depending on the medium used. The eight classic video colours are 0 (black), 3 (red), 12 (green), 15 (yellow), 48 (blue), 51 (magenta), 60 (cyan) and 63 (white). There is a four-stage grey ramp with 0 (black), 21 (dark grey), 42 (light grey), 64 (white).