Commander X 16 Map of select Pages

This document contains detailed information about five crucial memory pages of the Commander X 16 (X16) computer. These pages represent requirements of I/O devices, the CPU, the Kernal, the Basic Language, and other X16 facilities.

Infromation contained herein is gathered from many sources in that project and is presented here to give an overview of what is used, what is availalble for use, and what is not currently known.

E&OE.

IO Page (9Fxx) Map

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
	VIA1	VIA2	VERA		YM2151											
0	D1PRB	D2PRB	VERALO	L0HSCROLL_L	?											
1	D1PRA	D2PRA	VERAMID	L0HSCROLL_H	?											
2	D1DDRB	D2DDRB	VERAHI	L0VSCROLL_L												
3	D1DDRA	D2DDRA	VERADAT	L0VSCROLL_H												
4	D1T1L	D2T1L	VERADAT2	L1_CONFIG												
5	D1T1H	D2T1H	VERACTL	L1_MAPBASE												
6	D1T1LL	D2T1LL	VERAIEN	L1_TILEBASE												
7	D1T1LH	D2T1LH	VERAISR	L1_HSCROLL_L												
8	D1T2L	D2T2L	IRQLINE_L	L1_HSCROLL_H												
9	D1T2H	D2T2H	DC_VIDEO DC_HSTART	L1_VSCROLL_L												
A	D1SR	D2SR	DC_HSCALE DC_HSTOP	L1_VSCROLL_H												
B	D1ACR	D2ACR	DC_BORDER DC_VSTART	AUDIO_CTRL												
C	D1PCR	D2PCR	DC_BORDER DC_VSTOP	AUDIO_RATE												
D	D1IFR	D2IFR	L0_CONFIG	AUDIO_DATA												
E	D1IER	D2IER	L0_MSPBASE	SPI_DATA												
F	D1ORA	D2ORA	L0_TILEBASE	SPI_CTRL												

	Specified/Used
	Unknown/Unspecified
	User Defined

Page Zero (00xx) Map

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	RAM	R7L	R15L													
1	ROM	R7H	R15H													
2	R0L	R8L														
3	R0H	R8H														
4	R1L	R9L														
5	R1H	R9H														
6	R2L	R10L														
7	R2H	R10H														
8	R3L	R11L														
9	R3H	R11H														
A	R4L	R12L														
B	R4H	R12H														
C	R5L	R13L														
D	R5H	R13H														
E	R6L	R14L														
F	R6H	R14H														

	User/Application
	Memory Bank Control Registers. (RAM/ROM)
	Pseudo-registers for system libraries. See below.
	Kernal
	CBDOS
	rfu
	FPLIB
	BASIC

R0 through R15 are "registers" used by the kernal. In general:

- R0 through R5 are used to pass in parameters and return results.
- R6 through R10 are preserved by the kernal.
- R11 through R15 are scratch values that may be overwritten by kernal activity.

Page One (01xx) Map

Page One is reserved for the W65C02S System Stack.

Page Two (02xx) Map

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0																
1																
2																
3																
4																
5																
6																
7																
8																
9																
A																
B																
C																
D																
E																
F																

	Kernal
	rfu
	Kernal Code
	Framebuffer Driver Vectors

Page Three (03xx) Map

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0																
1																
2																
3																
4																
5																
6																
7																
8																
9																
A																
B																
C																
D																
E																
F																

	Basic Vectors
	Kernal Vectors
	Kernal
	rfu
	FPLIB
	BASIC

Other Pages

At this time pages 4 through 7 should be available for application use. However, this too may change before the X16 is released.