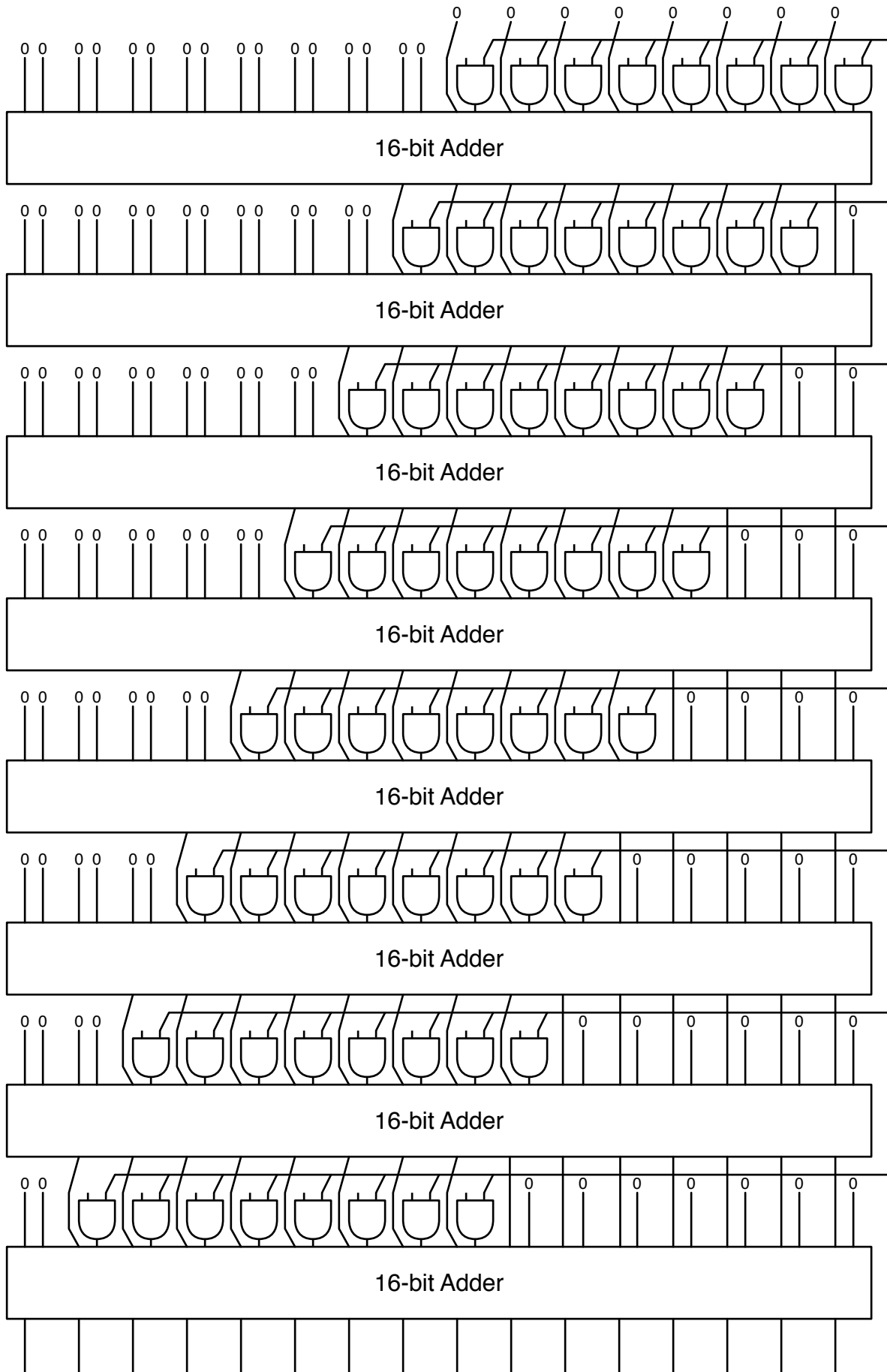
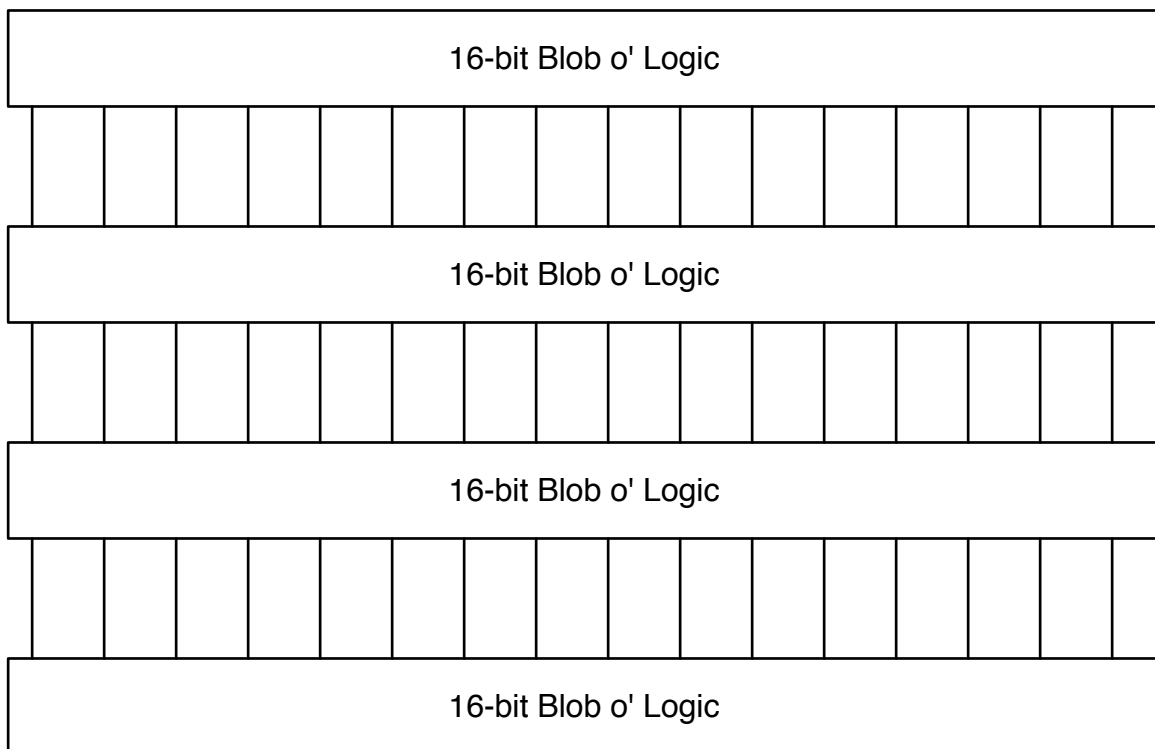
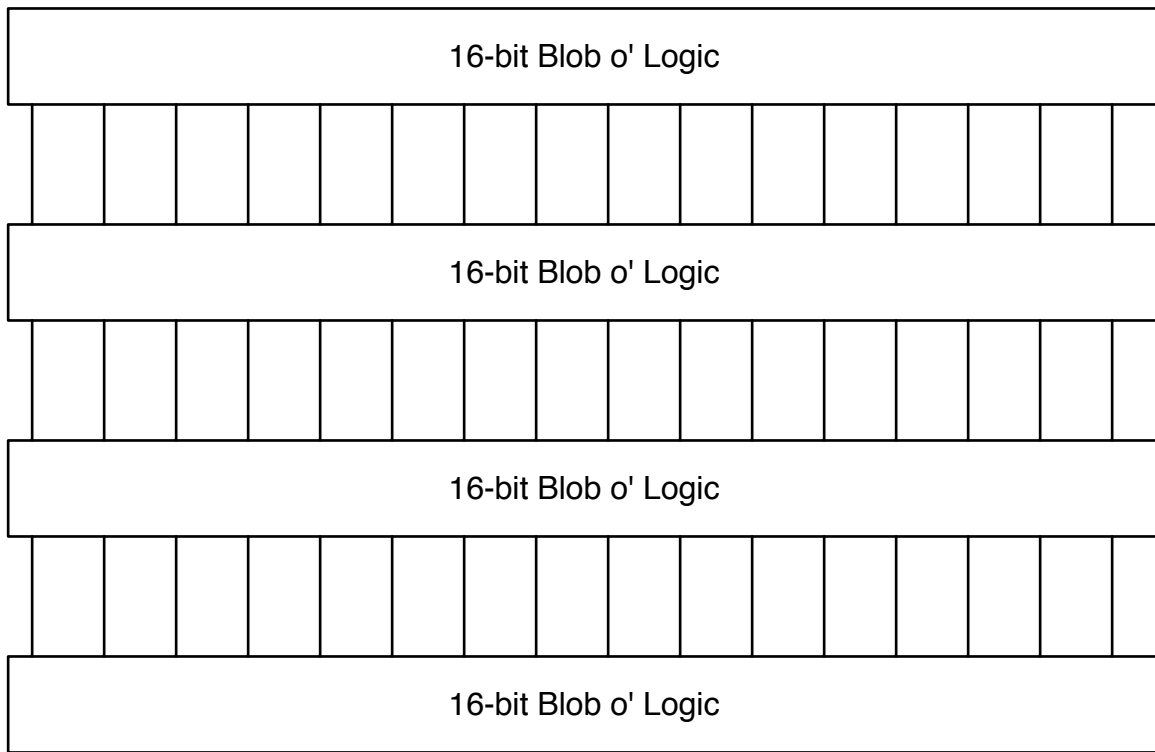


Combinational "shift and add" multiplier



Pipelining



The Wallace Tree

								a7	a6	a5	a4	a3	a2	a1	a0
								b7	b6	b5	b4	b3	b2	b1	b0
								70	60	50	40	30	20	10	00
							71	61	51	41	31	21	11	01	
						72	62	52	42	32	22	12	02		
					73	63	53	43	33	23	13	03			
				74	64	54	44	34	24	14	04				
			75	65	55	45	35	25	15	05					
		76	66	56	46	36	26	16	06						
77	67	57	47	37	27	17	07								

c20	c19	c18	c16	c14	c12	C9	C7	C5	C3	C2	C1	C0	S0	00
77	s20	s19	c17	c15	c13	c10	C8	C6	C4	S3	S2	S1		
			s18	s16	s14	c11	S9	S7	S5	S4	03			
			47	s17	s15	s12	s10	S8	S6					
						s13	s11	06						
						17								

D14	D13	D12	D11	D10	D8	D6	D4	D3	D2	D1	C0	T0	S0	00
T15	T14	T13	T12	T11	D9	D7	D5	T4	T3	T2	T1			
			47	s17	T10	T8	T6	T5	S6					
					s15	T9	T7							

D14	D13	E6	E5	E4	E3	E2	E1	E0	U0	D1	C0	T0	S0	00
T15	T14	U7	U6	U5	U4	U3	U2	U1		T2	T1			
		E7				s15	T9	T7						

F6	F5	F4	F3	F2	F1	F0	V0	E0	U0	D1	C0	T0	S0	00
V7	V6	V5	V4	V3	V2	V1		U1		T2	T1			