

BLITZ Instruction Set – Alpha Sort

Op-Code					Priv	Sets
decimal	hex	Instruction		Format	Inst	Condition Code
=====	=====	=====	=====	=====	=====	=====
128	80	add	Ra,data16,Rc	E		cond
96	60	add	Ra,Rb,Rc	D		cond
136	88	and	Ra,data16,Rc	E		cond
104	68	and	Ra,Rb,Rc	D		cond
137	89	andn	Ra,data16,Rc	E		cond
105	69	andn	Ra,Rb,Rc	D		cond
162	A2	be	data24	F		
66	42	be	Ra+Rc	C		
166	A6	bg	data24	F		
70	46	bg	Ra+Rc	C		
167	A7	bge	data24	F		
71	47	bge	Ra+Rc	C		
177	B1	bic	data24	F		
81	51	bic	Ra+Rc	C		
176	B0	bis	data24	F		
80	50	bis	Ra+Rc	C		
164	A4	bl	data24	F		
68	44	bl	Ra+Rc	C		
165	A5	ble	data24	F		
69	45	ble	Ra+Rc	C		
173	AD	bnc	data24	F		
77	4D	bnc	Ra+Rc	C		
163	A3	bne	data24	F		
67	43	bne	Ra+Rc	C		
172	AC	bns	data24	F		
76	4C	bns	Ra+Rc	C		
179	B3	bpc	data24	F		
83	53	bpc	Ra+Rc	C		
178	B2	bps	data24	F		
82	52	bps	Ra+Rc	C		
175	AF	bsc	data24	F		
79	4F	bsc	Ra+Rc	C		
174	AE	bss	data24	F		
78	4E	bss	Ra+Rc	C		
171	AB	bvc	data24	F		
75	4B	bvc	Ra+Rc	C		
170	AA	bvs	data24	F		
74	4A	bvs	Ra+Rc	C		
160	A0	call	data24	F		
64	40	call	Ra+Rc	C		
3	03	cleari		A	priv	
5	05	clearp		A	priv	
7	07	clears		A	priv	
2	02	debug		A		
10	0A	debug2		A		
131	83	div	Ra,data16,Rc	E		cond
99	63	div	Ra,Rb,Rc	D		cond
94	5E	fabs	Fa,Fc	C		
116	74	fadd	Fa,Fb,Fc	D		
91	5B	fcmp	Fa,Fc	C		cond
119	77	fdiv	Fa,Fb,Fc	D		
150	96	fload	[Ra+data16],Fc	E		
120	78	fload	[Ra+Rb],Fc	D		
118	76	fmul	Fa,Fb,Fc	D		
93	5D	fneg	Fa,Fc	C		
92	5C	fsqrt	Fa,Fc	C		

Op-Code		Instruction	Format	Priv Inst	Sets Condition Code
decimal	hex				
151	97	fstore Fc, [Ra+data16]	E		
121	79	fstore Fc, [Ra+Rb]	D		
117	75	fsub Fa, Fb, Fc	D		
89	59	ftoi Fa, Rc	C		
1	01	wait	A	priv	
90	5A	itof Ra, Fc	C		
161	A1	jmp data24	F		
65	41	jmp Ra+Rc	C		
194	C2	ldaddr data16, Rc	G		
32	20	ldptbr Rc	B	priv	
33	21	ldptlr Rc	B	priv	
139	8B	load [Ra+data16], Rc	E		
107	6B	load [Ra+Rb], Rc	D		
140	8C	loadb [Ra+data16], Rc	E		
108	6C	loadb [Ra+Rb], Rc	D		
142	8E	loadbv [Ra+data16], Rc	E	priv	
110	6E	loadbv [Ra+Rb], Rc	D	priv	
141	8D	loadv [Ra+data16], Rc	E	priv	
109	6D	loadv [Ra+Rb], Rc	D	priv	
130	82	mul Ra, data16, Rc	E		cond
98	62	mul Ra, Rb, Rc	D		cond
0	00	nop	A		
135	87	or Ra, data16, Rc	E		cond
103	67	or Ra, Rb, Rc	D		cond
85	55	pop [Ra++], Rc	C		
84	54	push Rc, [--Ra]	C		
147	93	readu Rc, [Ra+data16]	E	priv	
86	56	readu Rc, Ra	C	priv	
149	95	rem Ra, data16, Rc	E		cond
115	73	rem Ra, Rb, Rc	D		cond
9	09	ret	A		
8	08	reti	A	priv	
192	C0	sethi data16, Rc	G		
4	04	seti	A	priv	
193	C1	setlo data16, Rc	G		
6	06	setp	A	priv	
132	84	sll Ra, data16, Rc	E		cond
100	64	sll Ra, Rb, Rc	D		cond
134	86	sra Ra, data16, Rc	E		cond
102	66	sra Ra, Rb, Rc	D		cond
133	85	srl Ra, data16, Rc	E		cond
101	65	srl Ra, Rb, Rc	D		cond
143	8F	store Rc, [Ra+data16]	E		
111	6F	store Rc, [Ra+Rb]	D		
144	90	storeb Rc, [Ra+data16]	E		
112	70	storeb Rc, [Ra+Rb]	D		
146	92	storebv Rc, [Ra+data16]	E	priv	
114	72	storebv Rc, [Ra+Rb]	D	priv	
145	91	storev Rc, [Ra+data16]	E	priv	
113	71	storev Rc, [Ra+Rb]	D	priv	
129	81	sub Ra, data16, Rc	E		cond
97	61	sub Ra, Rb, Rc	D		cond
195	C3	syscall Rc+data16	G		
88	58	tset [Ra], Rc	C		
148	94	writou [Ra+data16], Rc	E	priv	
87	57	writou Ra, Rc	C	priv	
138	8A	xor Ra, data16, Rc	E		cond
106	6A	xor Ra, Rb, Rc	D		cond

BLITZ Instruction Set – Numeric Sort

Op-Code		Instruction	Format	Priv Inst	Sets Condition Code
decimal	hex				
0	00	nop	A		
1	01	wait	A	priv	
2	02	debug	A		
3	03	cleari	A	priv	
4	04	seti	A	priv	
5	05	clearp	A	priv	
6	06	setp	A	priv	
7	07	clears	A	priv	
8	08	reti	A	priv	
9	09	ret	A		
10	0A	debug2	A		
32	20	ldptbr Rc	B	priv	
33	21	ldptlr Rc	B	priv	
64	40	call Ra,Rc	C		
65	41	jmp Ra,Rc	C		
66	42	be Ra,Rc	C		
67	43	bne Ra,Rc	C		
68	44	bl Ra,Rc	C		
69	45	ble Ra,Rc	C		
70	46	bg Ra,Rc	C		
71	47	bge Ra,Rc	C		
74	4A	bvs Ra,Rc	C		
75	4B	bvc Ra,Rc	C		
76	4C	bns Ra,Rc	C		
77	4D	bnc Ra,Rc	C		
78	4E	bss Ra,Rc	C		
79	4F	bsc Ra,Rc	C		
80	50	bis Ra,Rc	C		
81	51	bic Ra,Rc	C		
82	52	bps Ra,Rc	C		
83	53	bpc Ra,Rc	C		
84	54	push Rc, [--Ra]	C		
85	55	pop [Ra++], Rc	C		
86	56	readu Rc, Ra	C	priv	
87	57	writeu Ra, Rc	C	priv	
88	58	tset [Ra], Rc	C		
89	59	ftoi Fa, Rc	C		
90	5A	itof Ra, Fc	C		
91	5B	fcmp Fa, Fc	C		cond
92	5C	fsqrt Fa, Fc	C		
93	5D	fneg Fa, Fc	C		
94	5E	fabs Fa, Fc	C		
96	60	add Ra, Rb, Rc	D		cond
97	61	sub Ra, Rb, Rc	D		cond
98	62	mul Ra, Rb, Rc	D		cond
99	63	div Ra, Rb, Rc	D		cond
100	64	sll Ra, Rb, Rc	D		cond
101	65	srl Ra, Rb, Rc	D		cond
102	66	sra Ra, Rb, Rc	D		cond
103	67	or Ra, Rb, Rc	D		cond
104	68	and Ra, Rb, Rc	D		cond
105	69	andn Ra, Rb, Rc	D		cond
106	6A	xor Ra, Rb, Rc	D		cond
107	6B	load [Ra+Rb], Rc	D		
108	6C	loadb [Ra+Rb], Rc	D		
109	6D	loadv [Ra+Rb], Rc	D	priv	

Op-Code		Instruction	Format	Priv Inst	Sets
decimal	hex				Condition Code
110	6E	loadbv [Ra+Rb],Rc	D	priv	
111	6F	store Rc,[Ra+Rb]	D		
112	70	storeb Rc,[Ra+Rb]	D		
113	71	storev Rc,[Ra+Rb]	D	priv	
114	72	storebv Rc,[Ra+Rb]	D	priv	
115	73	rem Ra,Rb,Rc	D		cond
116	74	fadd Fa,Fb,Fc	D		
117	75	fsub Fa,Fb,Fc	D		
118	76	fmul Fa,Fb,Fc	D		
119	77	fdiv Fa,Fb,Fc	D		
120	78	fload [Ra+Rb],Fc	D		
121	79	fstore Fc,[Ra+Rb]	D		
128	80	add Ra,data16,Rc	E		cond
129	81	sub Ra,data16,Rc	E		cond
130	82	mul Ra,data16,Rc	E		cond
131	83	div Ra,data16,Rc	E		cond
132	84	sll Ra,data16,Rc	E		cond
133	85	srl Ra,data16,Rc	E		cond
134	86	sra Ra,data16,Rc	E		cond
135	87	or Ra,data16,Rc	E		cond
136	88	and Ra,data16,Rc	E		cond
137	89	andn Ra,data16,Rc	E		cond
138	8A	xor Ra,data16,Rc	E		cond
139	8B	load [Ra+data16],Rc	E		
140	8C	loadb [Ra+data16],Rc	E		
141	8D	loadv [Ra+data16],Rc	E	priv	
142	8E	loadbv [Ra+data16],Rc	E	priv	
143	8F	store Rc,[Ra+data16]	E		
144	90	storeb Rc,[Ra+data16]	E		
145	91	storev Rc,[Ra+data16]	E	priv	
146	92	storebv Rc,[Ra+data16]	E	priv	
147	93	readu Rc,[Ra+data16]	E	priv	
148	94	writew [Ra+data16],Rc	E	priv	
149	95	rem Ra,data16,Rc	E		cond
150	96	fload [Ra+data16],Fc	E		
151	97	fstore Fc,[Ra+data16]	E		
160	A0	call data24	F		
161	A1	jmp data24	F		
162	A2	be data24	F		
163	A3	bne data24	F		
164	A4	bl data24	F		
165	A5	ble data24	F		
166	A6	bg data24	F		
167	A7	bge data24	F		
170	AA	bvs data24	F		
171	AB	bvc data24	F		
172	AC	bns data24	F		
173	AD	bnc data24	F		
174	AE	bss data24	F		
175	AF	bsc data24	F		
176	B0	bis data24	F		
177	B1	bic data24	F		
178	B2	bps data24	F		
179	B3	bpc data24	F		
192	C0	sethi data16,Rc	G		
193	C1	setlo data16,Rc	G		
194	C2	ldaddr data16,Rc	G		
195	C3	syscall Rc+data16	G		