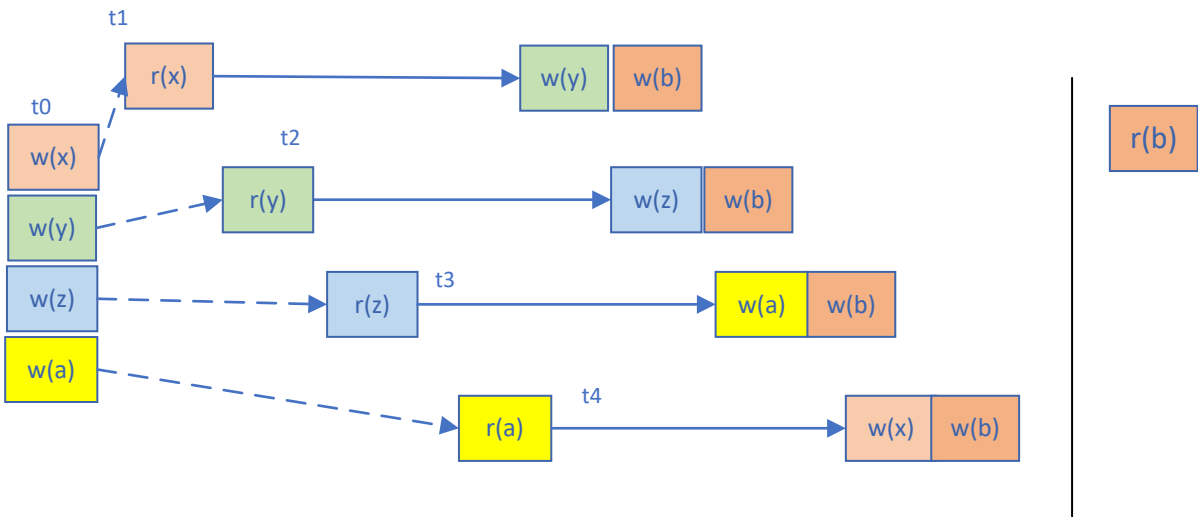


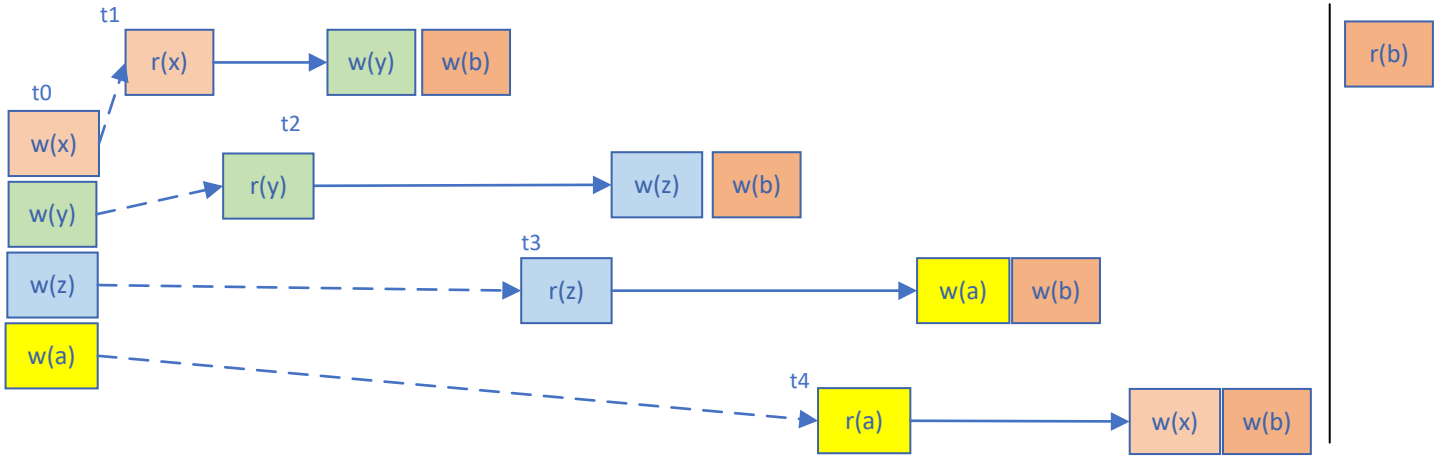
c→commit a→abort+理由になったtx bd→boundary
r→read flag対象のtx w→write flag対象のtx



write_crown																
cascading_all_4tx																
	occ4		occ3ltx1		occ2ltx1 occ1		occ1ltx1 occ2		ltx1occ3		occ2ltx2		occ1ltx1 occ1ltx1		ltx1occ2ltx1	
t1	OCC	c	OCC	a:t4	OCC	c	OCC	c	LTX	^c bd1	OCC	a:t4	OCC	a:t4	LTX	^c bd1
t2	OCC	a:t1	OCC	c	OCC	a:t1	LTX	^c bd2	OCC	a:t1	OCC	c	LTX	^c bd2	OCC	a:t1
t3	OCC	c	OCC	c	LTX	^c bd3	OCC	a:t2	OCC	c	LTX	^c bd3	OCC	a:t2	OCC	c
t4	OCC	a:t3	LTX	^c bd4	OCC	a:t3	OCC	c	OCC	a:t3	LTX	^c bd3 r:t3	LTX	^c bd4	LTX	^c bd4
read b	t4		t3		t1		t4		t3		t2		t4		t3	

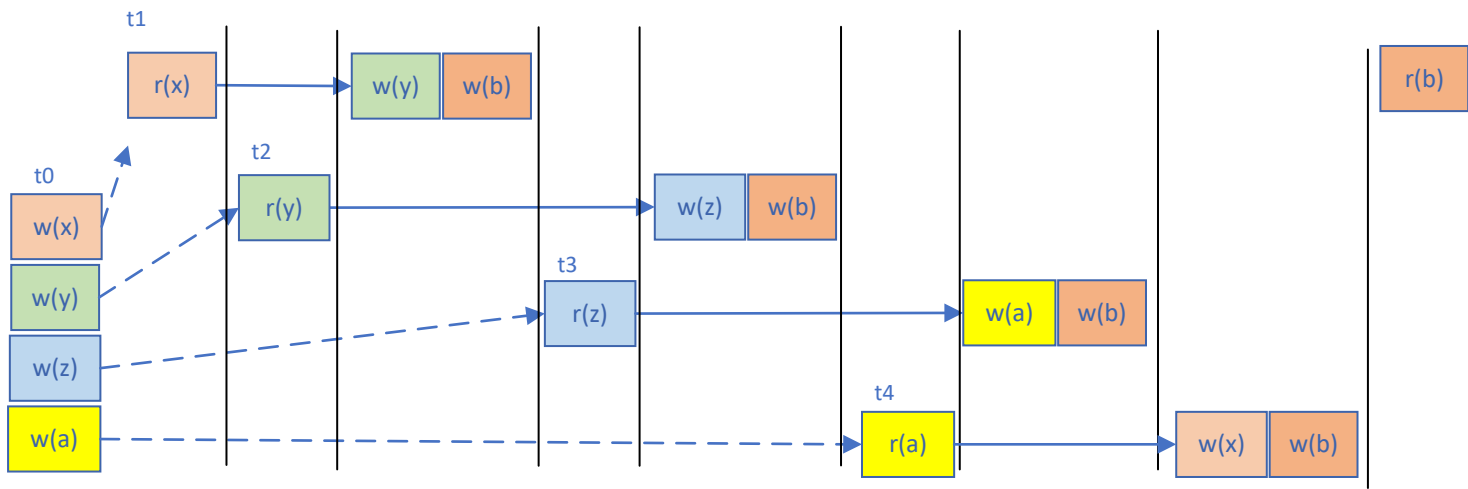
	occ1ltx2 occ1		ltx1occ1 ltx1occ1		ltx2occ2		occ1ltx3		ltx1occ1ltx2		ltx2occ1ltx1		ltx3occ1		ltx4	
t1	OCC	c	LTX	^c bd1	LTX	^c bd1	OCC	a:t4	LTX	^c bd1	LTX	^c bd1	LTX	^c bd1	LTX	^c bd1
t2	LTX	^c bd2	OCC	a:t1	LTX	^c bd1 r:t1	LTX	^c bd2	OCC	a:t1	LTX	^c bd1 r:t1	LTX	^c bd1 r:t1	LTX	^c bd1 r:t1
t3	LTX	^c bd2 r:t2	LTX	^c bd3	OCC	a:t2	LTX	^c bd2 r:t2	LTX	^c bd3	OCC	a:t2	LTX	^c bd1 r:t2	LTX	^c bd1 r:t2
t4	OCC	a:t3	OCC	a:t3	OCC	c	LTX	^c bd2 r:t3	LTX	^c bd3 r:t3	LTX	^c bd4	OCC	a:t3	LTX	^a bd1 r:t2 w:t1
read b	t1		t3		t4		t2		t3		t4		t1		t1	

ex write_crown.cascading_all_4tx.occ2ltx1occ1



write_crown																
cascading_all_3tx																
	occ4		occ3ltx1		occ2ltx1 occ1		occ1ltx1 occ2		ltx1occ3		occ2ltx2		occ1ltx1 occ1ltx1		ltx1occ2ltx1	
t1	OCC	c	OCC	a:t4	OCC	c	OCC	c	LTX	^c bd1	OCC	a:t4	OCC	a:t4	LTX	^c bd1
t2	OCC	a:t1	OCC	c	OCC	a:t1	LTX	^c bd2	OCC	a:t1	OCC	c	LTX	^c bd2	OCC	a:t1
t3	OCC	c	OCC	c	LTX	^c bd3	OCC	a:t2	OCC	c	LTX	^c bd3	OCC	a:t2	OCC	c
t4	OCC	a:t3	LTX	^c bd4	OCC	a:t3	OCC	c	OCC	a:t3	LTX	^c bd3 r:t3	LTX	^c bd4	LTX	^c bd4
read b	t4		t3		t1		t4		t3		t2		t4		t3	

	occ1ltx2 occ1		ltx1occ1 ltx1occ1		ltx2occ2		occ1ltx3		ltx1occ1ltx2		ltx2occ1ltx1		ltx3occ1		ltx4	
t1	OCC	c	LTX	^c bd1	LTX	^c bd1	OCC	a:t4	LTX	^c bd1	LTX	^c bd1	LTX	^c bd1	LTX	^c bd1
t2	LTX	^c bd2	OCC	a:t1	LTX	^c bd1 r:t1	LTX	^c bd2	OCC	a:t1	LTX	^c bd1 r:t1	LTX	^c bd1 r:t1	LTX	^c bd1 r:t1
t3	LTX	^c bd2 r:t2	LTX	^c bd3	OCC	a:t2	LTX	^c bd2 r:t2	LTX	^c bd3	OCC	a:t2	LTX	^c bd1 r:t2	LTX	^c bd1 r:t2
t4	OCC	a:t3	OCC	a:t3	OCC	c	LTX	^c bd2 r:t3	LTX	^c bd3 r:t3	LTX	^c bd4	OCC	a:t3	LTX	a bd1 r:t2 w:t1
read b	t1		t3		t4		t2		t3		t4		t1		t1	



write_crown																
cascading_all_3tx_1epoch_per_1ope																
	occ4		occ3ltx1		occ2ltx1 occ1		occ1ltx1 occ2		ltx1occ3		occ2ltx2		occ1ltx1 occ1ltx1		ltx1occ2ltx1	
t1	OCC	c	OCC	a:t4	OCC	c	OCC	c	LTX	^c bd1	OCC	c	OCC	c	LTX	^c bd1
t2	OCC	a:t1	OCC	c	OCC	a:t1	LTX	^c bd2	OCC	a:t1	OCC	a:t1	LTX	^c bd2	OCC	a:t1
t3	OCC	c	OCC	c	LTX	^c bd3	OCC	a:t2	OCC	c	LTX	^c bd3	OCC	a:t2	OCC	c
t4	OCC	a:t3	LTX	^c bd4	OCC	a:t3	OCC	c	OCC	a:t3	LTX	^c bd3 r:t3	LTX	^c bd4	LTX	^c bd4
read b	t4		t3		t3		t4		t3		t3		t4		t3	

	occ1ltx2 occ1		ltx1occ1 ltx1occ1		ltx2occ2		occ1ltx3		ltx1occ1ltx2		ltx2occ1ltx1		ltx3occ1		ltx4	
t1	OCC	c	LTX	^c bd1	LTX	^c bd1	OCC	c	LTX	^c bd1	LTX	^c bd1	LTX	^c bd1	LTX	^c bd1
t2	LTX	^c bd2	OCC	a:t1	LTX	^c bd1 r:t1	LTX	^c bd2	OCC	a:t1	LTX	^c bd1 r:t1	LTX	^c bd1 r:t1	LTX	^c bd1 r:t1
t3	LTX	^c bd2 r:t2	LTX	^c bd3	OCC	a:t2	LTX	^c bd2 r:t2	LTX	^c bd3	OCC	a:t2	LTX	^c bd1 r:t2	LTX	^c bd1 r:t2
t4	OCC	a:t3	OCC	a:t3	OCC	c	LTX	^a bd2 r:t3 w:t1	LTX	^c bd3 r:t3	LTX	^c bd4	OCC	a:t3	LTX	^a bd1 r:t2 w:t1
read b	t1		t3		t4		t1		t3		t4		t1		t1	

ex write_crown.cascading_all_3tx_1epoch_per_1ope.occ2ltx1occ1