

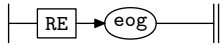
1. *lr1_br1* grammar.

A LR1 GRAMMAR FROM LETTER FROM BENT BRUUN KRISTENSEN AND OLE LEHRMANN MADSEN SIGPLAN VOL 19 NO 8 AUG 1984

2. Fsm Clr1_br1_rul_fsm class.

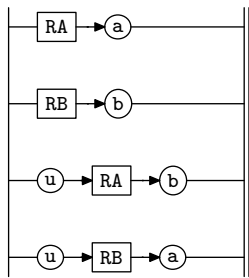
3. *Rlr1_br1* rule.

Rlr1_br1



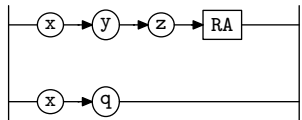
4. RE rule.

RE



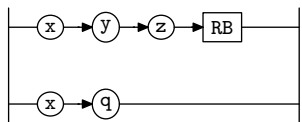
5. RA rule.

RA



6. RB rule.

RB



7. First Set Language for O_2^{linker} .

```
/*
  File: lr1_br1.fsc
  Date and Time: Mon Sep 15 20:09:15 2014
*/
transitive      n
grammar-name    "lr1_br1"
name-space      "NS_lr1_br1"
thread-name     "Clr1_br1_rul_fsm"
monolithic      y
file-name       "lr1_br1.fsc"
no-of-T         569
list-of-native-first-set-terminals 2
  raw_u
  raw_x
end-list-of-native-first-set-terminals
list-of-transitive-threads 0
end-list-of-transitive-threads
list-of-used-threads 0
end-list-of-used-threads
fsm-comments
"test out lr1"
```

8. Lr1 State Network.

\Rightarrow						State: 1 state type: s			
\leftarrow	rule	\rightarrow	R#	sr#	Po	\leftarrow	subrule element	\rightarrow	Brn Gto Red LA
c	RE		2	3	1	u			1 2 4
c	RE		2	4	1	u			1 2 6
c	RA		3	1	1	x			1 7 11
c	RA		3	2	1	x			1 7 8
c	RB		4	1	1	x			1 7 12
c	RB		4	2	1	x			1 7 8
c	Rlr1.br1		1	1	1	RE <u>eog</u>			1 13 14
c	RE		2	1	1	RA <u>a</u>			1 15 16
c	RE		2	2	1	RB <u>b</u>			1 17 18
\Rightarrow^u							State: 2 state type: s		
\leftarrow	rule	\rightarrow	R#	sr#	Po	\leftarrow	subrule element	\rightarrow	Brn Gto Red LA
c	RA		3	1	1	x			2 19 23
c	RA		3	2	1	x			2 19 20
c	RB		4	1	1	x			2 19 24
c	RB		4	2	1	x			2 19 20
t	RE		2	3	2	RA <u>b</u>			1 3 4
t	RE		2	4	2	RB <u>a</u>			1 5 6
\Rightarrow^{RA}							State: 3 state type: s		
\leftarrow	rule	\rightarrow	R#	sr#	Po	\leftarrow	subrule element	\rightarrow	Brn Gto Red LA
t	RE		2	3	3	b			1 4 4
\Rightarrow^b							State: 4 state type: r		
\leftarrow	rule	\rightarrow	R#	sr#	Po	\leftarrow	subrule element	\rightarrow	Brn Gto Red LA
t	RE		2	3	4				1 0 4 1
\Rightarrow^{RB}							State: 5 state type: s		
\leftarrow	rule	\rightarrow	R#	sr#	Po	\leftarrow	subrule element	\rightarrow	Brn Gto Red LA
t	RE		2	4	3	a			1 6 6
\Rightarrow^a							State: 6 state type: r		
\leftarrow	rule	\rightarrow	R#	sr#	Po	\leftarrow	subrule element	\rightarrow	Brn Gto Red LA
t	RE		2	4	4				1 0 6 1
\Rightarrow^x							State: 7 state type: s		
\leftarrow	rule	\rightarrow	R#	sr#	Po	\leftarrow	subrule element	\rightarrow	Brn Gto Red LA
t	RA		3	2	2	q			1 8 8
t	RB		4	2	2	q			1 8 8
t	RA		3	1	2	y			1 9 11
t	RB		4	1	2	y			1 9 12
\Rightarrow^q							State: 8 state type: r^2		
\leftarrow	rule	\rightarrow	R#	sr#	Po	\leftarrow	subrule element	\rightarrow	Brn Gto Red LA
t	RA		3	2	3				1 0 8 2
t	RB		4	2	3				1 0 8 3
\Rightarrow^y							State: 9 state type: s		

←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
t	RA		3	1	3	z			1	10	11	
t	RB		4	1	3	z			1	10	12	
⇒ ^z												
←	rule	→	R#	sr#	Po	←	State: 10 state type: ^s subrule element	→	Brn	Gto	Red	LA
c	RA		3	1	1	x			10	7	11	
c	RA		3	2	1	x			10	7	8	
c	RB		4	1	1	x			10	7	12	
c	RB		4	2	1	x			10	7	8	
t	RA		3	1	4	RA			1	11	11	
t	RB		4	1	4	RB			1	12	12	
⇒ ^{RA}												
←	rule	→	R#	sr#	Po	←	State: 11 state type: ^r subrule element	→	Brn	Gto	Red	LA
t	RA		3	1	5				1	0	11	2
⇒ ^{RB}												
←	rule	→	R#	sr#	Po	←	State: 12 state type: ^r subrule element	→	Brn	Gto	Red	LA
t	RB		4	1	5				1	0	12	3
⇒ ^{RE}												
←	rule	→	R#	sr#	Po	←	State: 13 state type: ^s subrule element	→	Brn	Gto	Red	LA
t	Rlr1.br1		1	1	2	eog			1	14	14	
⇒ ^{eog}												
←	rule	→	R#	sr#	Po	←	State: 14 state type: ^r subrule element	→	Brn	Gto	Red	LA
t	Rlr1.br1		1	1	3				1	0	14	4
⇒ ^{RA}												
←	rule	→	R#	sr#	Po	←	State: 15 state type: ^s subrule element	→	Brn	Gto	Red	LA
t	RE		2	1	2	a			1	16	16	
⇒ ^a												
←	rule	→	R#	sr#	Po	←	State: 16 state type: ^r subrule element	→	Brn	Gto	Red	LA
t	RE		2	1	3				1	0	16	1
⇒ ^{RB}												
←	rule	→	R#	sr#	Po	←	State: 17 state type: ^s subrule element	→	Brn	Gto	Red	LA
t	RE		2	2	2	b			1	18	18	
⇒ ^b												
←	rule	→	R#	sr#	Po	←	State: 18 state type: ^r subrule element	→	Brn	Gto	Red	LA
t	RE		2	2	3				1	0	18	1
⇒ ^x												
←	rule	→	R#	sr#	Po	←	State: 19 state type: ^s subrule element	→	Brn	Gto	Red	LA
t	RA		3	2	2	q			2	20	20	
t	RB		4	2	2	q			2	20	20	
t	RA		3	1	2	y			2	21	23	
t	RB		4	1	2	y			2	21	24	

\Rightarrow^q						State: 20 state type: r^2		
←	rule	→	R#	sr#	Po	←	subrule element	→ Brn Gto Red LA
t	RA		3	2	3			2 0 20 3
t	RB		4	2	3			2 0 20 2
\Rightarrow^y						State: 21 state type: s		
←	rule	→	R#	sr#	Po	←	subrule element	→ Brn Gto Red LA
t	RA		3	1	3	z		2 22 23
t	RB		4	1	3	z		2 22 24
\Rightarrow^z						State: 22 state type: s		
←	rule	→	R#	sr#	Po	←	subrule element	→ Brn Gto Red LA
c	RA		3	1	1	x		22 19 23
c	RA		3	2	1	x		22 19 20
c	RB		4	1	1	x		22 19 24
c	RB		4	2	1	x		22 19 20
t	RA		3	1	4	RA		2 23 23
t	RB		4	1	4	RB		2 24 24
\Rightarrow^{RA}						State: 23 state type: r		
←	rule	→	R#	sr#	Po	←	subrule element	→ Brn Gto Red LA
t	RA		3	1	5			2 0 23 3
\Rightarrow^{RB}						State: 24 state type: r		
←	rule	→	R#	sr#	Po	←	subrule element	→ Brn Gto Red LA
t	RB		4	1	5			2 0 24 2

9. Index.eog: [3](#).*lr1-br1*: [1](#).RA: [4](#), [5](#).RA: [5](#).RB: [4](#), [6](#).RB: [6](#).RE: [3](#).RE: [4](#).*Rlr1-br1*: [3](#).

lr1_br1 Grammar

Date: September 16, 2014 at 14:59

File: lr1_br1.lex

Ns: NS_lr1_br1

Version: 1.0

Debug: true

Grammar Comments:

Type: Monolithic

test out lr1

	Section	Page
<i>lr1_br1</i> grammar	1	1
Fsm Clr1_br1_rul_fsm class	2	1
<i>Rlr1_br1</i> rule	3	1
RE rule	4	1
RA rule	5	1
RB rule	6	1
First Set Language for O_2^{linker}	7	2
Lr1 State Network	8	3
Index	9	6