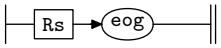
1. Spector Grammar.
David Spector
Full LR(1) Parser Generator ACM Sigplan Notices, 16(8), August 1981.
Test out LR(1) resolution - page 64.

2. Fsm Csp_1 class.

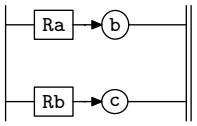
3. *Rmm* **rule.**

Rmm



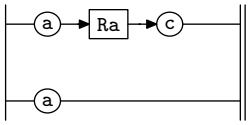
4. *Rs* **rule.**

Rs



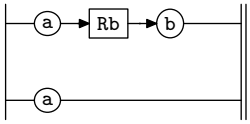
5. *Ra* **rule.**

Ra



6. *Rb* **rule.**

Rb



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

```
/*
 File: sp_1.fsc
 Date and Time: Sun Jun 15 11:38:48 2014
*/
transitive   n
grammar-name "sp_1"
name-space   "NS_sp_1"
thread-name  "Csp_1"
monolithic   y
file-name    "sp_1.fsc"
no-of-T      569
list-of-native-first-set-terminals 1
   raw_a
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 Spector LR(1) resolution from page 64."
```

8. Lr1 State Network.

⇒ State: 1 state type: ^{s}

←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
c	Ra		3	1	1	a			1	2	4	
c	Ra		3	2	1	a			1	2	2	
c	Rb		4	1	1	a			1	2	6	
c	Rb		4	2	1	a			1	2	2	
c	Rmm		1	1	1	Rs $\underline{eog}$			1	7	8	
c	Rs		2	1	1	Ra $\underline{b}$			1	9	10	
c	Rs		2	2	1	Rb $\underline{c}$			1	11	12	

$\Rightarrow^{a}$ State: 2 state type: $^{s/r^2}$

←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
t	Ra		3	2	2				1	0	2	1
t	Rb		4	2	2				1	0	2	2
c	Ra		3	1	1	a			2	13	15	
c	Ra		3	2	1	a			2	13	13	
c	Rb		4	1	1	a			2	13	17	
c	Rb		4	2	1	a			2	13	13	
t	Ra		3	1	2	Ra $\underline{c}$			1	3	4	
t	Rb		4	1	2	Rb $\underline{b}$			1	5	6	

$\Rightarrow^{Ra}$ State: 3 state type: ^{s}

←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
t	Ra		3	1	3	c			1	4	4	

$\Rightarrow^{c}$ State: 4 state type: ^{r}

←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
t	Ra		3	1	4				1	0	4	1

$\Rightarrow^{Rb}$ State: 5 state type: ^{s}

←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
t	Rb		4	1	3	b			1	6	6	

$\Rightarrow^{b}$ State: 6 state type: ^{r}

←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
t	Rb		4	1	4				1	0	6	2

$\Rightarrow^{Rs}$ State: 7 state type: ^{s}

←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
t	Rmm		1	1	2	eog			1	8	8	

$\Rightarrow^{eog}$ State: 8 state type: ^{r}

←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
t	Rmm		1	1	3				1	0	8	3

$\Rightarrow^{Ra}$ State: 9 state type: ^{s}

←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
t	Rs		2	1	2	b			1	10	10	

$\Rightarrow^{b}$ State: 10 state type: ^{r}

	←	rule	→	R#	sr#	Po	←
t	Rs			2	1	3	

←	subrule element	→	Brn	Gto	Red	LA
			1	0	10	4

⇒^{Rb}

State: 11 state type: ^{s}

	←	rule	→	R#	sr#	Po	←
t	Rs			2	2	2	c

←	subrule element	→	Brn	Gto	Red	LA
			1	12	12	

⇒^{c}

State: 12 state type: ^{r}

	←	rule	→	R#	sr#	Po	←
t	Rs			2	2	3	

←	subrule element	→	Brn	Gto	Red	LA
			1	0	12	4

⇒^{a}

State: 13 state type: $^{s/r^2}$

	←	rule	→	R#	sr#	Po	←
t	Ra			3	2	2	
t	Rb			4	2	2	
c	Ra			3	1	1	a
c	Ra			3	2	1	a
c	Rb			4	1	1	a
c	Rb			4	2	1	a
t	Ra			3	1	2	Ra $\underline{c}$
t	Rb			4	1	2	Rb $\underline{b}$

←	subrule element	→	Brn	Gto	Red	LA
			2	0	13	2
			2	0	13	1
			13	13	15	
			13	13	13	
			13	13	17	
			13	13	13	
			2	14	15	
			2	16	17	

⇒^{Ra}

State: 14 state type: ^{s}

	←	rule	→	R#	sr#	Po	←
t	Ra			3	1	3	c

←	subrule element	→	Brn	Gto	Red	LA
			2	15	15	

⇒^{c}

State: 15 state type: ^{r}

	←	rule	→	R#	sr#	Po	←
t	Ra			3	1	4	

←	subrule element	→	Brn	Gto	Red	LA
			2	0	15	2

⇒^{Rb}

State: 16 state type: ^{s}

	←	rule	→	R#	sr#	Po	←
t	Rb			4	1	3	b

←	subrule element	→	Brn	Gto	Red	LA
			2	17	17	

⇒^{b}

State: 17 state type: ^{r}

	←	rule	→	R#	sr#	Po	←
t	Rb			4	1	4	

←	subrule element	→	Brn	Gto	Red	LA
			2	0	17	1

9. Index.

sp_1 Grammar

Date: June 15, 2014 at 15:01

File: sp_1.lex

Ns: NS_sp_1

Version: 1.0 Debug: false

Grammar Comments: Type: Monolithic

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