

1. Deremer and Pennello page 632 LALR(1) Grammar.

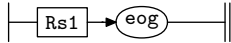
Efficient Computation of LALR(1) Look-Ahead Sets

ACM Transactions on Programming Languages and Systems, 4(4):615649, 1982

2. Fsm Cdp.1 class.

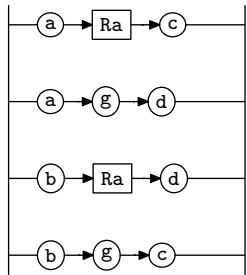
3. *Rs* rule.

Rs



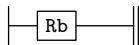
4. *Rs1* rule.

Rs1



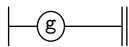
5. *Ra* rule.

Ra



6. *Rb* rule.

Rb



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

```
/*
  File: dp_1.fsc
  Date and Time: Fri Jan  2 09:49:18 2015
*/
transitive      n
grammar-name    "dp_1"
name-space      "NS_dp_1"
thread-name     "Cdp_1"
monolithic      y
file-name       "dp_1.fsc"
no-of-T         569
list-of-native-first-set-terminals 2
  raw_a
  raw_b
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
"LALR(1) Deremer and Pennello grammar from page 632."
```

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	Rs1		2 1 1	a			1 2 6
c	Rs1		2 2 1	a			1 2 4
c	Rs1		2 3 1	b			1 7 11
c	Rs1		2 4 1	b			1 7 9
c	Rs		1 1 1	Rs1 <u>eog</u>			1 12 13
\Rightarrow^a					State: 2 state type: s		
\leftarrow	rule	\rightarrow	R# sr# Po	\leftarrow	subrule element	\rightarrow	Brn Gto Red LA
t	Rs1		2 2 2	g			1 3 4
c	Rb		4 1 1	g			2 3 3
t	Rs1		2 1 2	Ra <u>c</u>			1 5 6
c	Ra		3 1 1	Rb			2 14 14
\Rightarrow^g					State: 3 state type: s/r		
\leftarrow	rule	\rightarrow	R# sr# Po	\leftarrow	subrule element	\rightarrow	Brn Gto Red LA
t	Rb		4 1 2				2 0 3 1
t	Rs1		2 2 3	d			1 4 4
\Rightarrow^d					State: 4 state type: r		
\leftarrow	rule	\rightarrow	R# sr# Po	\leftarrow	subrule element	\rightarrow	Brn Gto Red LA
t	Rs1		2 2 4				1 0 4 2
\Rightarrow^{Ra}					State: 5 state type: s		
\leftarrow	rule	\rightarrow	R# sr# Po	\leftarrow	subrule element	\rightarrow	Brn Gto Red LA
t	Rs1		2 1 3	c			1 6 6
\Rightarrow^c					State: 6 state type: r		
\leftarrow	rule	\rightarrow	R# sr# Po	\leftarrow	subrule element	\rightarrow	Brn Gto Red LA
t	Rs1		2 1 4				1 0 6 2
\Rightarrow^b					State: 7 state type: s		
\leftarrow	rule	\rightarrow	R# sr# Po	\leftarrow	subrule element	\rightarrow	Brn Gto Red LA
t	Rs1		2 4 2	g			1 8 9
c	Rb		4 1 1	g			7 8 8
t	Rs1		2 3 2	Ra <u>d</u>			1 10 11
c	Ra		3 1 1	Rb			7 15 15
\Rightarrow^g					State: 8 state type: s/r		
\leftarrow	rule	\rightarrow	R# sr# Po	\leftarrow	subrule element	\rightarrow	Brn Gto Red LA
t	Rb		4 1 2				7 0 8 3
t	Rs1		2 4 3	c			1 9 9
\Rightarrow^c					State: 9 state type: r		
\leftarrow	rule	\rightarrow	R# sr# Po	\leftarrow	subrule element	\rightarrow	Brn Gto Red LA
t	Rs1		2 4 4				1 0 9 2
\Rightarrow^{Ra}					State: 10 state type: s		
\leftarrow	rule	\rightarrow	R# sr# Po	\leftarrow	subrule element	\rightarrow	Brn Gto Red LA

t Rs1		2	3	3	d			1	11	11		
\Rightarrow^d						State: 11 state type: <i>r</i>						
←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
t Rs1			2	3	4				1	0	11	2
\Rightarrow^{Rs1}						State: 12 state type: <i>s</i>						
←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
t Rs			1	1	2	eog			1	13	13	
\Rightarrow^{eog}						State: 13 state type: <i>r</i>						
←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
t Rs			1	1	3				1	0	13	4
\Rightarrow^{Rb}						State: 14 state type: <i>r</i>						
←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
t Ra			3	1	2				2	0	14	1
\Rightarrow^{Rb}						State: 15 state type: <i>r</i>						
←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
t Ra			3	1	2				7	0	15	3

9. Index.

eog: 3.

Ra: 4.

Ra: 5.

Rb: 5.

Rb: 6.

Rs: 3.

Rs1: 4.

Rs1: 3.

dp_1 Grammar

Date: January 2, 2015 at 11:26

File: dp_1.lex

Ns: NS_dp_1

Version: 1.0

Debug: false

Grammar Comments:

Type: Monolithic

LALR(1) Deremer and Pennello grammar from page 632.

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