

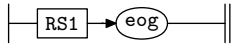
1. lalr1_dp2 grammar.

A laLR1 grammar from Deremer and Pennello paper efficient computation: lalr(1) look-ahead sets acm trans on prog lang and systems vol. 4 no. 4 oct 82 page 633

2. Fsm Clalr1_dp2 class.

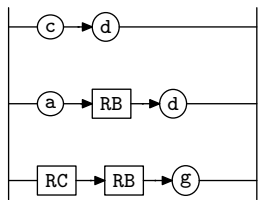
3. Rlalr1_dp2 rule.

Rlalr1_dp2



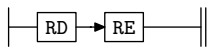
4. RS1 rule.

RS1



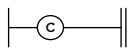
5. RB rule.

RB



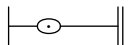
6. RC rule.

RC



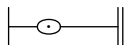
7. RD rule.

RD



8. RE rule.

RE



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

```
/*
  File: lalr1_dp2.fsc
  Date and Time: Tue Sep 16 13:27:45 2014
*/
transitive      n
grammar-name    "lalr1_dp2"
name-space      "NS_lalr1_dp2"
thread-name     "Clalr1_dp2"
monolithic      y
file-name       "lalr1_dp2.fsc"
no-of-T         569
list-of-native-first-set-terminals 2
  raw_a
  raw_c
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"
```

10. 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 2 1 a				1 2 4
c	RC		4 1 1 c				1 5 5
c	RS1		2 1 1 c				1 5 6
c	Rlalr1_dp2		1 1 1 RS1 \overline{eog}				1 7 8
c	RS1		2 3 1 RC $\overline{RE^e} g$				1 9 11
\Rightarrow^a					State: 2 state type: s/r		
\leftarrow	rule	\rightarrow	R# sr# Po	\leftarrow	subrule element	\rightarrow	Brn Gto Red LA
c	RD		5 1 1 ϵ				2 0 2 1
t	RS1		2 2 2 RB \underline{d}				1 3 4
c	RB		3 1 1 RD $\overline{RE^e}$				2 12 13
\Rightarrow^{RB}					State: 3 state type: s		
\leftarrow	rule	\rightarrow	R# sr# Po	\leftarrow	subrule element	\rightarrow	Brn Gto Red LA
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^c					State: 5 state type: s/r		
\leftarrow	rule	\rightarrow	R# sr# Po	\leftarrow	subrule element	\rightarrow	Brn Gto Red LA
t	RC		4 1 2				1 0 5 3
t	RS1		2 1 2 d				1 6 6
\Rightarrow^d					State: 6 state type: r		
\leftarrow	rule	\rightarrow	R# sr# Po	\leftarrow	subrule element	\rightarrow	Brn Gto Red LA
t	RS1		2 1 3				1 0 6 2
\Rightarrow^{RS1}					State: 7 state type: s		
\leftarrow	rule	\rightarrow	R# sr# Po	\leftarrow	subrule element	\rightarrow	Brn Gto Red LA
t	Rlalr1_dp2		1 1 2 eog				1 8 8
\Rightarrow^{eog}					State: 8 state type: r		
\leftarrow	rule	\rightarrow	R# sr# Po	\leftarrow	subrule element	\rightarrow	Brn Gto Red LA
t	Rlalr1_dp2		1 1 3				1 0 8 4
\Rightarrow^{RC}					State: 9 state type: s/r		
\leftarrow	rule	\rightarrow	R# sr# Po	\leftarrow	subrule element	\rightarrow	Brn Gto Red LA
c	RD		5 1 1 ϵ				9 0 9 3
t	RS1		2 3 2 RB \underline{g}				1 10 11
c	RB		3 1 1 RD $\overline{RE^e}$				9 12 13
\Rightarrow^{RB}					State: 10 state type: s		
\leftarrow	rule	\rightarrow	R# sr# Po	\leftarrow	subrule element	\rightarrow	Brn Gto Red LA
t	RS1		2 3 3 g				1 11 11
\Rightarrow^g					State: 11 state type: r		

← t RS1	rule	→ R# sr# Po ← 2 3 4	subrule element	→ Brn Gto Red LA 1 0 11 2
⇒ RD				
← c RE t RB	rule	→ R# sr# Po ← 6 1 1 ε 3 1 2 RE	State: 12 state type: <i>s/r</i> subrule element	→ Brn Gto Red LA 12 0 12 1 2 13 13
⇒ ^{RE}				
← t RB	rule	→ R# sr# Po ← 3 1 3	State: 13 state type: <i>r</i> subrule element	→ Brn Gto Red LA 2 0 13 1

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RB: [5](#).
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RC: [6](#).
RD: [5](#).
RD: [7](#).
RE: [5](#).
RE: [8](#).
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RS1: [4](#).
RS1: [3](#).

lalr1_dp2 Grammar

Date: September 16, 2014 at 14:59

File: lalr1_dp2.lex

Ns: NS_lalr1_dp2

Version: 1.0

Debug: true

Grammar Comments:

Type: Monolithic

test out lr1

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