

1. Copyright.

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2. *subrule_def* Thread.

Parse a rule's subrule expression.

Example of a parallel-parser construct to parse:

```

/*
file: subrdef.txt
Why: some text examples of sub rule construct.
*/

-> ||| "#NULL" NS_identifier::TH_identifier {
  op
  Csubrule_def* fsm = (Csubrule_def*)parser()->fsm_tbl();
  fsm->subrule_def->add_elem_to_subrule_vector(sf->p2__);
  ***
}
-> |?| {
  op
  CAbs_lr1_sym* sym = new LR1_err_no_open_brace;
  sym->set_rc(*parser()->current_token(),*parser());
  RSVP(sym);
  parser()->set_stop_parse(true);
  ***
}
-> "{"
-> Rvector Rlint Rrhs_expr

```

3. Fsm Csubrule_def class.**4. Csubrule_def constructor directive.**

⟨Csubrule_def constructor directive 4⟩ ≡
subrule_def_ = 0;

5. Csubrule_def op directive.

⟨Csubrule_def op directive 5⟩ ≡
if (*subrule_def_* ≠ 0) {
delete *subrule_def_*;
subrule_def_ = 0;
}
subrule_def_ = **new** *T_subrule_def*;
subrule_def_->set_rc(*parser->start_token__, __FILE__, __LINE__);

6. Csubrule_def user-declaration directive.

⟨Csubrule_def user-declaration directive 6⟩ ≡
public: void *add_sdc_to_directive*(*yacco2*::CAbs_lr1_sym * *Dir*, *T_syntax_code* * *Sdc*);
T_subrule_def * *subrule_def_*;

7. Csubrule_def user-implementation directive.

```

⟨ Csubrule_def user-implementation directive 7 ⟩ ≡
  void Csubrule_def :: add_sdc_to_directive(yacco2 :: CAbs_lr1_sym * Dir, T_syntax_code * Sdc) { using
    namespace NS_yacco2_T_enum;
    using namespace NS_yacco2_terminals;
    yacco2 :: INT eid = Dir->enumerated_id_; switch (eid) { case T_Enum :: T_T_op_: { T_op * k = (
      T_op * ) Dir;
      k->syntax_code(Sdc);
      break; }
    default:
      {
        CAbs_lr1_sym * sym = new Err_improper_directive;
        sym->set_rc(*Dir, __FILE__, __LINE__);
        RSVP_FSM(sym);
        parser__->set_stop_parse(true);
      }
    } }

```

8. Csubrule_def user-prefix-declaration directive.

```

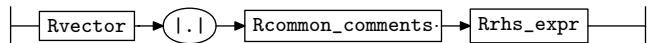
⟨ Csubrule_def user-prefix-declaration directive 8 ⟩ ≡
  using namespace NS_yacco2_terminals;
  #include "lint_balls.h"
  #include "cweb_or_c_k.h"
  #include "subrule_vector.h"
  #include "o2_sdc.h"
  #include "identifier.h"
  #include "dbl_colon.h"
  #include "rhs_component.h"
  #include "rtn_component.h"
  #include "rhs_bnd.h"
  #include "parallel_oper.h"

```

9. Rsubrule_def rule.

Use of |.| to make grammar lr(1) due to s/r conflict on |||.

Rsubrule_def



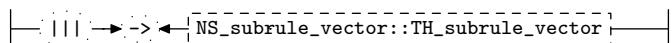
```

⟨ Rsubrule_def subrule 1 op directive 9 ⟩ ≡
  Csubrule_def * fsm = ( Csubrule_def * ) rule_info__->parser__->fsm_tbl_;
  fsm->subrule_def->bld_its_tree();
  RSVP(fsm->subrule_def_);
  fsm->subrule_def_ = 0;

```

10. Rvector rule.

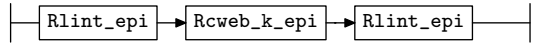
Rvector



11. *Rcommon_comments* rule.

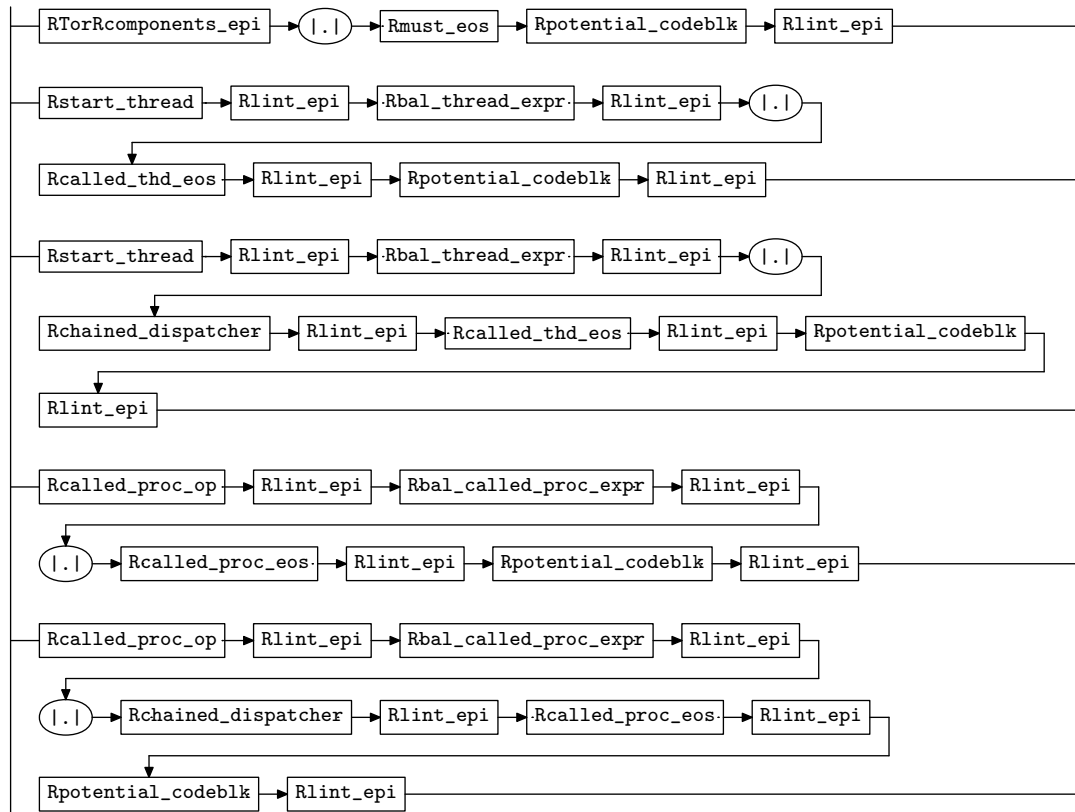
Basic possible lint balls and a single cweb comment fronting the sub rule definition.

Rcommon_comments

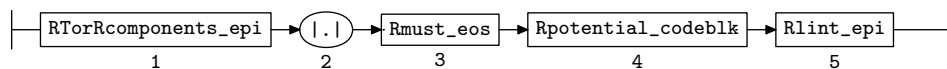
12. *Rrhs_expr* rule.

Use of |.| to make grammar lr(1) due to s/r conflict on |||.

Rrhs_expr

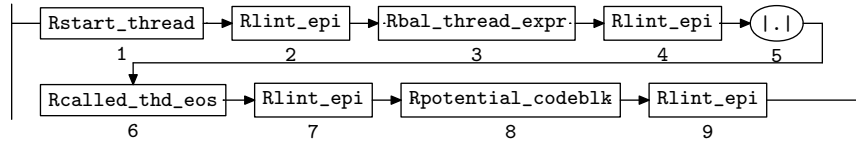
13. *Rrhs_expr*'s subrule 1.

A regular grammar expression containing either ϵ or an α string of symbols drawn from the T or R vocabularies. Why the |.| symbol following *RTorRcomponents_epi*? There is a shift / reduce conflict caused by the ||| so let the ϵ reduce on this meta terminal.



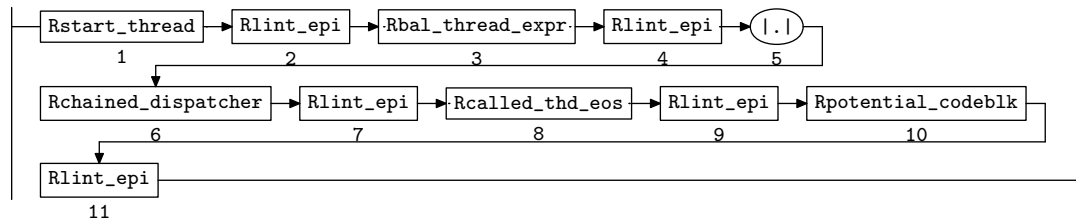
14. *Rrhs_expr*'s subrule 2.

Your standard thread call expression.



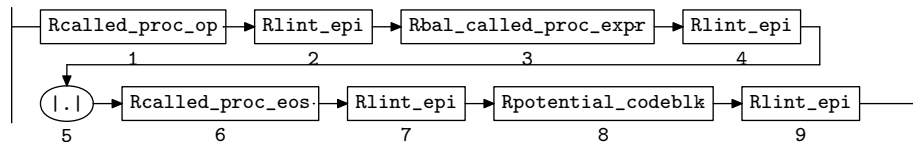
15. *Rrhs_expr*'s subrule 3.

The new back-to-back chained thread call dispatcher expression. *Rchained_dispatcher* rule supports nested chained calls. The returned output from the |t| expression becomes the input to the next *Rchained_dispatcher* |t| expression.



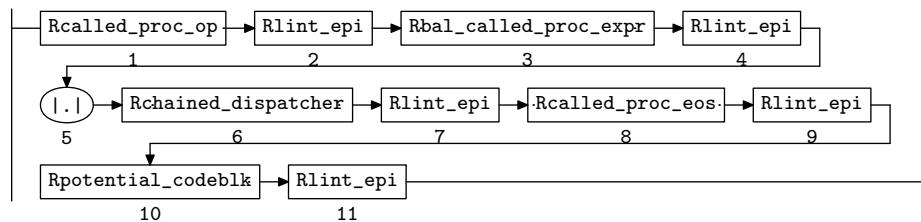
16. *Rrhs_expr*'s subrule 4.

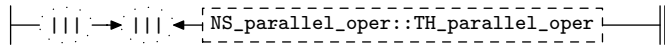
Your chained procedure call expression. It can be used against a previous T element. Note: a R element is not allowed as the chained procedure call uses the stacked T of the caller parser as its First set. So what does *Rxxx* mean to it? nada.



17. *Rrhs_expr*'s subrule 5.

The new back-to-back chained thread call dispatcher expression.



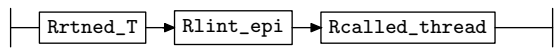
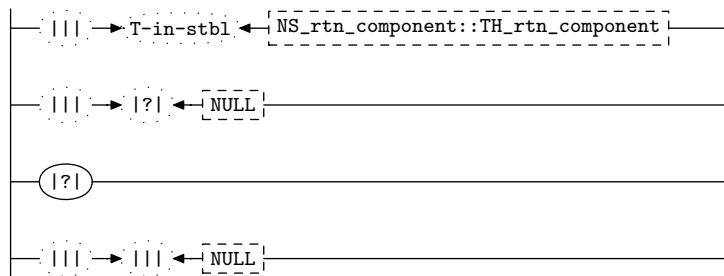
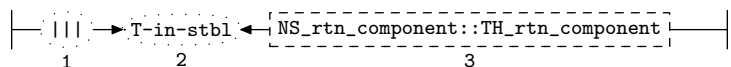
18. *Rstart_thread* rule.*Rstart_thread*

⟨*Rstart_thread* subrule 1 op directive 18⟩ ≡

```

Csubrule_def * fsm = ( Csubrule_def * ) rule_info...parser--fsm.tbl...;
T_sym.tbl.report_card report_card;
using namespace yacco2_stbl;
find_sym.in_stbl(report_card, *sf→p2--id...);
if (report_card.action_ ≡ T_sym.tbl.report_card::not_fnd) {
  CAbs_lr1_sym * sym = new Err_subrule_use_undefined_T;
  sym→set_rc(*rule_info...parser--start_token..., __FILE__, __LINE__);
  RSVP(sym);
  rule_info...parser--set_stop_parse(true);
  return;
}
CAbs_lr1_sym * sym = report_card.tbl_entry→symbol_; T_in_stbl * t = ( T_in_stbl * ) sym;
referred_T * rT = *(t→xref_t()→rbegin());
fsm→subrule_def→add_elem_to_subrule_vector(rT);
rT→its_subrule_def(fsm→subrule_def_);

```

19. *Rbal_thread_expr* rule.*Rbal_thread_expr*20. *Rrtnded_T* rule.*Rrtnded_T*21. *Rrtnded_T*'s subrule 1.

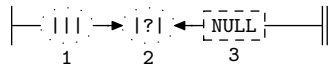
⟨*Rrtnded_T* subrule 1 op directive 21⟩ ≡

```

Csubrule_def * fsm = ( Csubrule_def * ) rule_info...parser--fsm.tbl...;
referred_T * reft = *(sf→p2--xref_t()→rbegin());
fsm→subrule_def→add_elem_to_subrule_vector(reft);
reft→its_subrule_def(fsm→subrule_def_);

```

22. Rrtned_T's subrule 2.



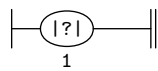
Other returned types are errors.

```

<Rrtned_T subrule 2 op directive 22> ≡
  CAbs_lr1_sym * sym = new Err_not_T_for_rtned_token_from_th();
  sym->set_rc(*sf->p2--, __FILE__, __LINE__);
  RSVP(sym);
  rule_info...parser--set_stop_parse(true);

```

23. Rrtned_T's subrule 3.

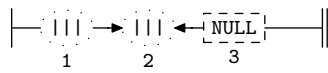


```

<Rrtned_T subrule 3 op directive 23> ≡
  CAbs_lr1_sym * sym = new Err_not_T_for_rtned_token_from_th();
  sym->set_rc(*sf->p1--, __FILE__, __LINE__);
  RSVP(sym);
  rule_info...parser--set_stop_parse(true);

```

24. Rrtned_T's subrule 4.



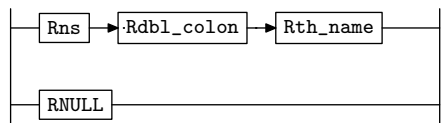
```

<Rrtned_T subrule 4 op directive 24> ≡
  Csubrule_def * fsm = ( Csubrule_def * ) rule_info...parser--fsm_tbl--;
  fsm->subrule_def->add_elem_to_subrule_vector(sf->p2--);

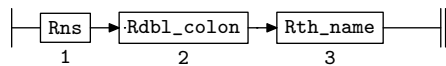
```

25. Rcalled_thread rule.

Rcalled_thread



26. Rcalled_thread's subrule 1.



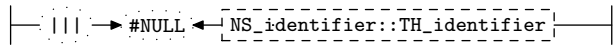
```

<Rcalled_thread subrule 1 op directive 26> ≡
  Csubrule_def * fsm = ( Csubrule_def * ) rule_info...parser--fsm_tbl--;
  T_called_thread_eosubrule * sym = new T_called_thread_eosubrule(sf->p1--ns_, sf->p3--thd_nm_);
  sym->set_rc(*sf->p1--ns_, __FILE__, __LINE__);
  sym->its_subrule_def(fsm->subrule_def_);
  fsm->subrule_def->add_elem_to_subrule_vector(sym);

```

27. RNULL rule.

RNULL

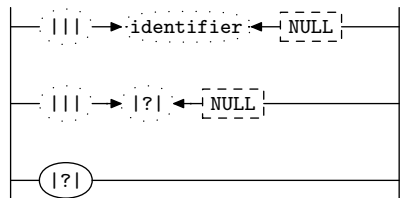


⟨RNULL subrule 1 op directive 27⟩ ≡

```
Csubrule_def * fsm = ( Csubrule_def * ) rule_info__parser__fsm_tbl__;
T_null_call_thread_eosubrule * sym = new T_null_call_thread_eosubrule;
sym->set_rc(*sf-p2__, __FILE__, __LINE__);
sym->its_subrule_def(fsm->subrule_def_);
fsm->subrule_def->add_elem_to_subrule_vector(sym);
sf-p2__->set_auto_delete(true);
```

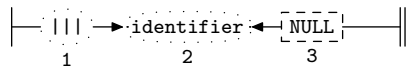
28. Rns rule.

Rns

**29. Rns user-declaration directive.**

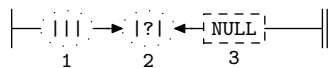
⟨Rns user-declaration directive 29⟩ ≡

```
public: T_identifier * ns_;
```

30. Rns's subrule 1.

⟨Rns subrule 1 op directive 30⟩ ≡

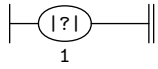
```
ns_ = sf-p2__;
```

31. Rns's subrule 2.

⟨Rns subrule 2 op directive 31⟩ ≡

```
CAbs_lr1_sym * sym = new Err_not_id_for_ns_in_th_stmt();
sym->set_rc(*sf-p2__, __FILE__, __LINE__);
RSVP(sym);
rule_info__parser__->set_stop_parse(true);
```

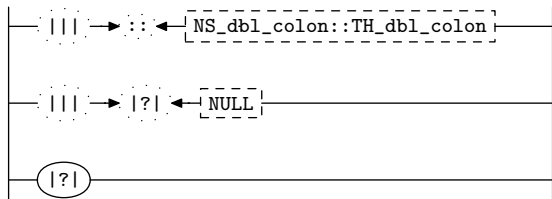

32. Rns's subrule 3.



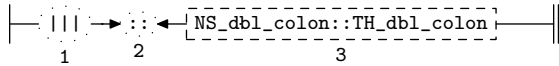
⟨Rns subrule 3 op directive 32⟩ ≡
CAbs_lr1_sym * *sym* = **new** *Err_not_id_for_ns_in_th_stmt*();
sym→*set_rc*(**sf*→*p1*__, __FILE__, __LINE__);
RSVP(*sym*);
rule_info→*parser*→*set_stop_parse*(*true*);

33. Rdbl_colon rule.

Rdbl_colon

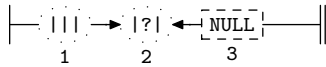


34. Rdbl_colon's subrule 1.



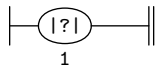
⟨Rdbl_colon subrule 1 op directive 34⟩ ≡
sf→*p2*→*set_auto_delete*(*true*);

35. Rdbl_colon's subrule 2.

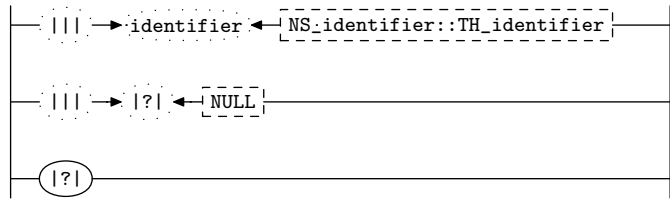


⟨Rdbl_colon subrule 2 op directive 35⟩ ≡
CAbs_lr1_sym * *sym* = **new** *Err_not_dbl_colon_in_th_stmt*();
sym→*set_rc*(**sf*→*p2*__, __FILE__, __LINE__);
RSVP(*sym*);
rule_info→*parser*→*set_stop_parse*(*true*);

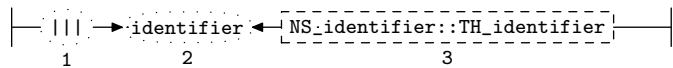
36. Rdbl_colon's subrule 3.



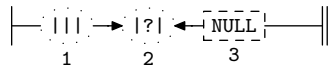
⟨Rdbl_colon subrule 3 op directive 36⟩ ≡
CAbs_lr1_sym * *sym* = **new** *Err_not_dbl_colon_in_th_stmt*();
sym→*set_rc*(**sf*→*p1*__, __FILE__, __LINE__);
RSVP(*sym*);
rule_info→*parser*→*set_stop_parse*(*true*);

37. *Rth_name* rule.*Rth_name***38. *Rth_name* user-declaration directive.**

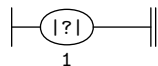
⟨*Rth_name* user-declaration directive 38⟩ ≡
public: *T_identifier* * *thd_nm_*;

39. *Rth_name*'s subrule 1.

⟨*Rth_name* subrule 1 op directive 39⟩ ≡
thd_nm_ = *sf-p2_*;

40. *Rth_name*'s subrule 2.

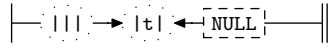
⟨*Rth_name* subrule 2 op directive 40⟩ ≡
CAbs_lr1_sym * *sym* = **new** *Err_not_id_for_th_name_in_th_stmt*();
sym→*set_rc*(**sf-p2_*, __FILE__, __LINE__);
RSVP(*sym*);
rule_info→*parser*→*set_stop_parse*(*true*);

41. *Rth_name*'s subrule 3.

⟨*Rth_name* subrule 3 op directive 41⟩ ≡
CAbs_lr1_sym * *sym* = **new** *Err_not_id_for_th_name_in_th_stmt*();
sym→*set_rc*(**sf-p1_*, __FILE__, __LINE__);
RSVP(*sym*);
rule_info→*parser*→*set_stop_parse*(*true*);

42. *Rcalled_proc_op* rule.

Rcalled_proc_op



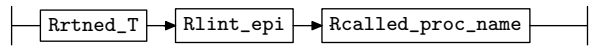
<Rcalled_proc_op subrule 1 op directive 42> ≡

```

Csubrule_def * fsm = ( Csubrule_def * ) rule_info__parser__fsm_tbl__;
T_sym_tbl_report_card report_card;
using namespace yacco2_stbl;
find_sym_in_stbl(report_card, *sf-p2__id__);
if (report_card.action_ ≡ T_sym_tbl_report_card::not_fnd) {
  CAbs_lr1_sym * sym = new Err_subrule_use_undefined_T;
  sym->set_rc(*rule_info__parser__start_token__, __FILE__, __LINE__);
  RSVP(sym);
  rule_info__parser__set_stop_parse(true);
  return;
}
CAbs_lr1_sym * sym = report_card.tbl_entry->symbol_; T_in_stbl * t = ( T_in_stbl * ) sym;
referred_T * rT = *(t->xref_t()->rbegin());
fsm->subrule_def->add_elem_to_subrule_vector(rT);
rT->its_subrule_def(fsm->subrule_def-);
  
```

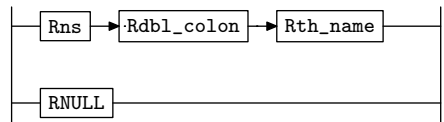
43. *Rbal_called_proc_expr* rule.

Rbal_called_proc_expr

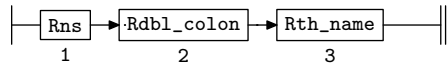


44. *Rcalled_proc_name* rule.

Rcalled_proc_name



45. *Rcalled_proc_name*'s subrule 1.



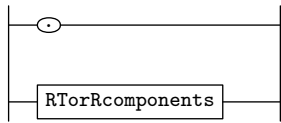
<Rcalled_proc_name subrule 1 op directive 45> ≡

```

Csubrule_def * fsm = ( Csubrule_def * ) rule_info__parser__fsm_tbl__;
T_called_thread_eosubrule * sym = new T_called_thread_eosubrule(sf-p1__ns_, sf-p3__thd_nm_);
sym->set_rc(*sf-p1__ns_, __FILE__, __LINE__);
sym->its_subrule_def(fsm->subrule_def-);
fsm->subrule_def->add_elem_to_subrule_vector(sym);
  
```

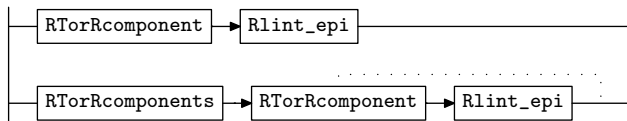
46. *RTorRcomponents_epi* rule.

RTorRcomponents_epi



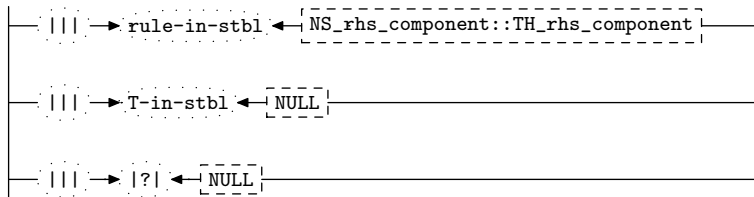
47. *RTorRcomponents* rule.

RTorRcomponents

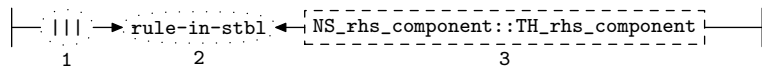


48. *RTorRcomponent* rule.

RTorRcomponent



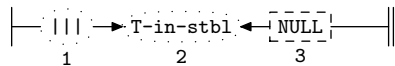
49. *RTorRcomponent's* subrule 1.



```

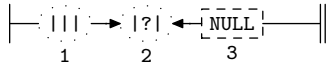
<RTorRcomponent subrule 1 op directive 49> ≡
  Csubrule_def * fsm = ( Csubrule_def * ) rule_info...parser--fsm_tbl...;
  refered_rule * refr = *(sf-p2--xref_r()-rbegin());
  fsm-subrule_def-add_elem_to_subrule_vector(refr);
  refr-its-subrule_def(fsm-subrule_def-);
  
```

50. *RTorRcomponent's* subrule 2.



```

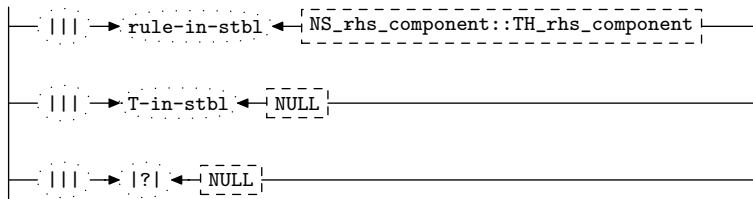
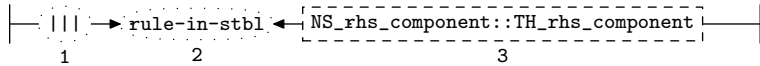
<RTorRcomponent subrule 2 op directive 50> ≡
  Csubrule_def * fsm = ( Csubrule_def * ) rule_info...parser--fsm_tbl...;
  refered_T * reft = *(sf-p2--xref_t()-rbegin());
  fsm-subrule_def-add_elem_to_subrule_vector(reft);
  reft-its-subrule_def(fsm-subrule_def-);
  
```

51. *RTorRcomponent's* subrule 3.

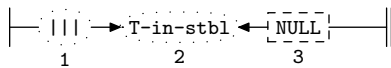
⟨RTorRcomponent subrule 3 op directive 51⟩ ≡
CAbs_lr1_sym * *sym* = **new** *Err_not_T_or_R_in_subrule_expr*();
sym→*set_rc*(**sf*→*p2*__, __FILE__, __LINE__);
RSVP(*sym*);
rule_info→*parser*→*set_stop_parse*(*true*);

52. *Rchained_dispatcher* rule.

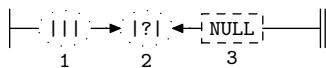
Rchained_dispatcher

**53. *Rchained_dispatcher's* subrule 1.**

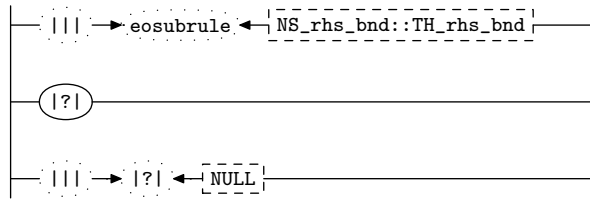
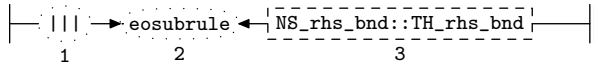
⟨Rchained_dispatcher subrule 1 op directive 53⟩ ≡
Csubrule_def * *fsm* = (*Csubrule_def* *) *rule_info*→*parser*→*fsm_tbl*__;
referred_rule * *refr* = *(*sf*→*p2*→*xref_r*()→*rbegin*());
fsm→*subrule_def*→*add_elem_to_subrule_vector*(*refr*);
refr→*its_subrule_def*(*fsm*→*subrule_def*);

54. *Rchained_dispatcher's* subrule 2.

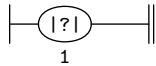
⟨Rchained_dispatcher subrule 2 op directive 54⟩ ≡
Csubrule_def * *fsm* = (*Csubrule_def* *) *rule_info*→*parser*→*fsm_tbl*__;
CAbs_lr1_sym * *sym* = **new** *Err_not_a_Rule*();
sym→*set_rc*(**sf*→*p2*__, __FILE__, __LINE__);
RSVP(*sym*);
rule_info→*parser*→*set_stop_parse*(*true*);

55. *Rchained_dispatcher's* subrule 3.

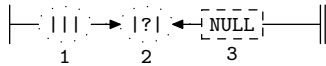
⟨Rchained_dispatcher subrule 3 op directive 55⟩ ≡
CAbs_lr1_sym * *sym* = **new** *Err_not_a_Rule*();
sym→*set_rc*(**sf*→*p2*__, __FILE__, __LINE__);
RSVP(*sym*);
rule_info→*parser*→*set_stop_parse*(*true*);

56. *Rmust_eos* rule.*Rmust_eos***57.** *Rmust_eos*'s subrule 1.

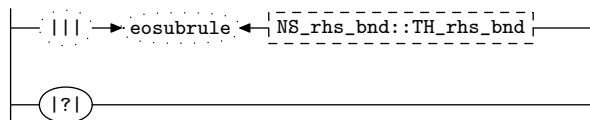
⟨*Rmust_eos* subrule 1 op directive 57⟩ ≡
Csubrule_def * *sym* = (*Csubrule_def* *) *rule_info__parser__fsm_tbl__*;
fsm_subrule_def__add_elem_to_subrule_vector(*sf_p2__*);
sf_p2__its_subrule_def(*fsm_subrule_def*);

58. *Rmust_eos*'s subrule 2.

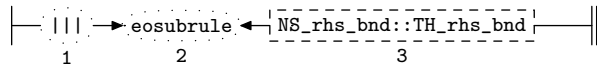
⟨*Rmust_eos* subrule 2 op directive 58⟩ ≡
CAbs_lr1_sym * *sym* = **new** *Err_not_eos_in_subrule_expr*();
sym_set_rc(**sf_p1__*, __FILE__, __LINE__);
RSVP(*sym*);
rule_info__parser__set_stop_parse(*true*);

59. *Rmust_eos*'s subrule 3.

⟨*Rmust_eos* subrule 3 op directive 59⟩ ≡
CAbs_lr1_sym * *sym* = **new** *Err_not_eos_in_subrule_expr*();
sym_set_rc(**sf_p2__*, __FILE__, __LINE__);
RSVP(*sym*);
rule_info__parser__set_stop_parse(*true*);
sf_p2__set_auto_delete(*true*);

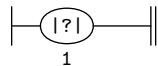
60. *Rcalled_thd_eos* rule.*Rcalled_thd_eos*

61. Rcalled_thd_eos's subrule 1.



\langle Rcalled_thd_eos subrule 1 op directive 61 $\rangle \equiv$
`Csubrule_def * fsm = (Csubrule_def *) rule_info...parser...fsm_tbl...;`
`fsm-subrule_def-add_elem_to_subrule_vector(sf-p2...);`
`sf-p2...its_subrule_def(fsm-subrule_def-);`

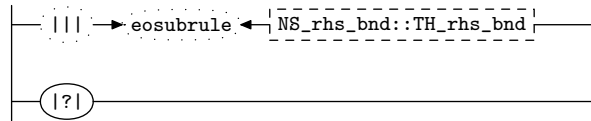
62. Rcalled_thd_eos's subrule 2.



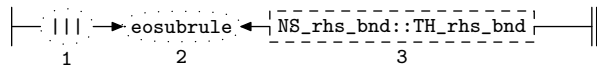
\langle Rcalled_thd_eos subrule 2 op directive 62 $\rangle \equiv$
`CAbs_lr1_sym * sym = new Err_not_eos_in_subrule_expr();`
`sym-set_rc(*sf-p1..., __FILE__, __LINE__);`
`RSVP(sym);`
`rule_info...parser...set_stop_parse(true);`

63. Rcalled_proc_eos rule.

Rcalled_proc_eos

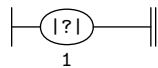


64. Rcalled_proc_eos's subrule 1.



\langle Rcalled_proc_eos subrule 1 op directive 64 $\rangle \equiv$
`Csubrule_def * fsm = (Csubrule_def *) rule_info...parser...fsm_tbl...;`
`fsm-subrule_def-add_elem_to_subrule_vector(sf-p2...);`
`sf-p2...its_subrule_def(fsm-subrule_def-);`

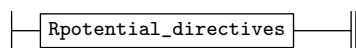
65. Rcalled_proc_eos's subrule 2.

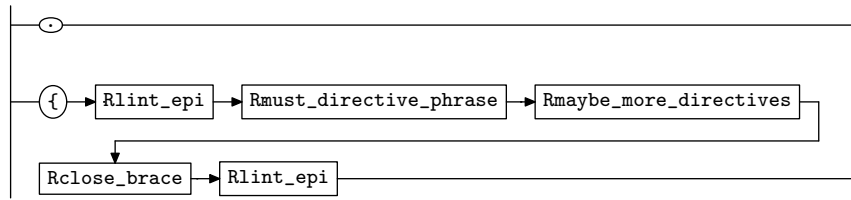
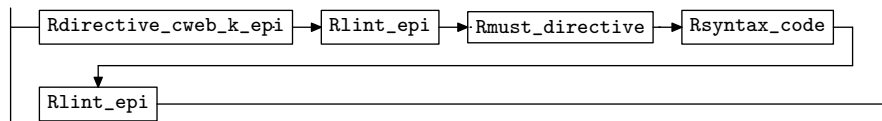


\langle Rcalled_proc_eos subrule 2 op directive 65 $\rangle \equiv$
`CAbs_lr1_sym * sym = new Err_not_eos_in_subrule_expr();`
`sym-set_rc(*sf-p1..., __FILE__, __LINE__);`
`RSVP(sym);`
`rule_info...parser...set_stop_parse(true);`

66. Rpotential_codeblk rule.

Rpotential_codeblk

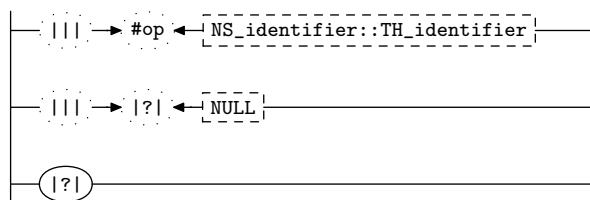


67. *Rpotential_directives* rule.*Rpotential_directives***68. *Rmust_directive_phrase* rule.***Rmust_directive_phrase*

⟨*Rmust_directive_phrase* subrule 1 op directive 68⟩ ≡

```

AST * cwebt = sf→p1→cweb.t;
Rmust_directive * dir = sf→p3→;
Rsyntax_code * sdc = sf→p4→;
if (cwebt ≠ 0) {
    sdc→syntax_code→add_cweb_marker(cwebt);
}
Csubrule_def * fsm = ( Csubrule_def * ) rule_info→parser→fsm.tbl→;
fsm→add_sdc_to_directive(dir→directive→, sdc→syntax_code→);
  
```

69. *Rmust_directive* rule.*Rmust_directive***70. *Rmust_directive* constructor directive.**

⟨*Rmust_directive* constructor directive 70⟩ ≡

```
directive_ = 0;
```

71. *Rmust_directive* op directive.

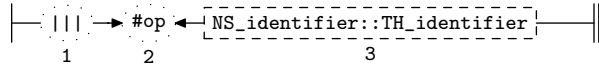
⟨*Rmust_directive* op directive 71⟩ ≡

```

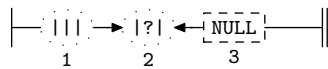
if (directive_ ≡ 0) return;
Csubrule_def * fsm = ( Csubrule_def * ) rule_info→parser→fsm.tbl→;
CAbs_lr1_sym * result = fsm→subrule_def→add_directive_to_subrule(directive→, rule_info→parser→);
if (result ≡ 0) return; /* ok added */
directive_→set_auto_delete(true); /* dup: delete when popped from stack */
RSVP(result);
rule_info→parser→set_stop_parse(true);
  
```


72. Rmust_directive user-declaration directive.

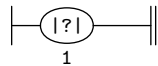
⟨Rmust_directive user-declaration directive 72⟩ ≡
CAbs_lr1_sym * *directive_*;

73. Rmust_directive's subrule 1.

⟨Rmust_directive subrule 1 op directive 73⟩ ≡
directive_ = *sf-p2_*;

74. Rmust_directive's subrule 2.

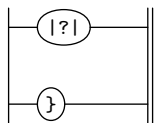
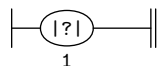
⟨Rmust_directive subrule 2 op directive 74⟩ ≡
directive_ = 0;
sf-p2_ → *set_auto_delete*(*true*);
CAbs_lr1_sym * *sym* = **new** *Err_bad_directive*;
sym → *set_rc*(**sf-p2_*, __FILE__, __LINE__);
RSVP(*sym*);
rule_info_.parser_ → *set_stop_parse*(*true*);

75. Rmust_directive's subrule 3.

⟨Rmust_directive subrule 3 op directive 75⟩ ≡
CAbs_lr1_sym * *sym* = **new** *Err_no_directive_present*;
sym → *set_rc*(**rule_info_.parser_* → *current_token*(), __FILE__, __LINE__);
RSVP(*sym*);
rule_info_.parser_ → *set_stop_parse*(*true*);

76. Rclose_brace rule.

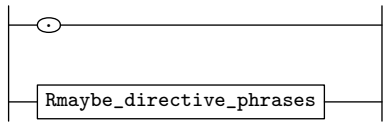
Rclose_brace

**77. Rclose_brace's subrule 1.**

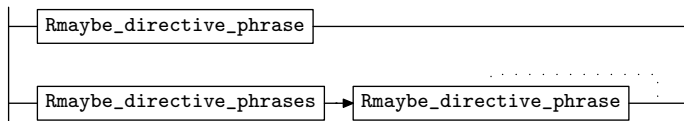
⟨Rclose_brace subrule 1 op directive 77⟩ ≡
CAbs_lr1_sym * *sym* = **new** *Err_no_close_brace*;
sym → *set_rc*(**rule_info_.parser_* → *current_token*(), __FILE__, __LINE__);
RSVP(*sym*);
rule_info_.parser_ → *set_stop_parse*(*true*);

78. *Rmaybe_more_directives* rule.

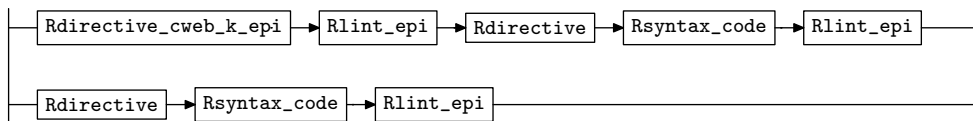
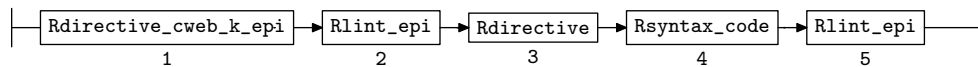
Rmaybe_more_directives

**79.** *Rmaybe_directive_phrases* rule.

Rmaybe_directive_phrases

**80.** *Rmaybe_directive_phrase* rule.

Rmaybe_directive_phrase

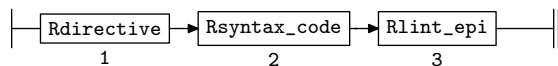
**81.** *Rmaybe_directive_phrase*'s subrule 1.

⟨ Rmaybe_directive_phrase subrule 1 op directive 81 ⟩ ≡

```

AST * cwebt = sf-p1--cweb_t_;
Rdirective * dir = sf-p3--;
Rsyntax_code * sdc = sf-p4--;
if (cwebt ≠ 0) {
    sdc-syntax_code_-add_cweb_marker(cwebt);
}
Csubrule_def * fsm = ( Csubrule_def * ) rule_info_.parser_-fsm_tbl_;
fsm-add_sdc_to_directive(dir-directive_, sdc-syntax_code_);

```

82. *Rmaybe_directive_phrase*'s subrule 2.

⟨ Rmaybe_directive_phrase subrule 2 op directive 82 ⟩ ≡

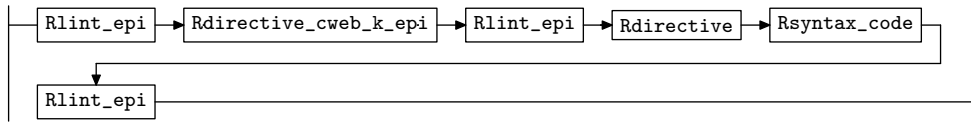
```

Rdirective * dir = sf-p1--;
Rsyntax_code * sdc = sf-p2--; Csubrule_def * fsm = ( Csubrule_def * ) rule_info_.parser_-fsm_tbl_;
fsm-add_sdc_to_directive(dir-directive_, sdc-syntax_code_);

```

83. Rdirective_phrase rule.

Rdirective_phrase



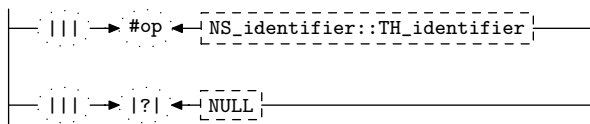
⟨ Rdirective_phrase subrule 1 op directive 83 ⟩ ≡

```

AST * cwebt = sf-p2--cweb.t.;
Rdirective * dir = sf-p4--;
Rsyntax_code * sdc = sf-p5--;
if (cwebt ≠ 0) {
    sdc->syntax_code->add_cweb_marker(cwebt);
}
Csubrule_def * fsm = ( Csubrule_def * ) rule_info...parser--fsm.tbl--;
fsm-add_sdc_to_directive(dir->directive_, sdc->syntax_code_);
  
```

84. Rdirective rule.

Rdirective



85. Rdirective constructor directive.

⟨ Rdirective constructor directive 85 ⟩ ≡

```
directive_ = 0;
```

86. Rdirective op directive.

⟨ Rdirective op directive 86 ⟩ ≡

```

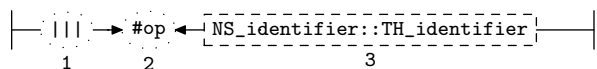
if (directive_ ≡ 0) return;
Csubrule_def * fsm = ( Csubrule_def * ) rule_info...parser--fsm.tbl--;
CAbs_lr1_sym * result = fsm->subrule_def->add_directive_to_subrule(directive_, rule_info...parser--);
if (result ≡ 0) return; /* ok added */
directive->set_auto_delete(true); /* dup: delete when popped from stack */
RSVP(result);
rule_info...parser-->set_stop_parse(true);
  
```

87. Rdirective user-declaration directive.

⟨ Rdirective user-declaration directive 87 ⟩ ≡

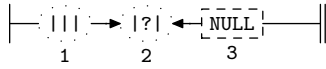
```
CAbs_lr1_sym * directive_;
```

88. Rdirective's subrule 1.



⟨ Rdirective subrule 1 op directive 88 ⟩ ≡

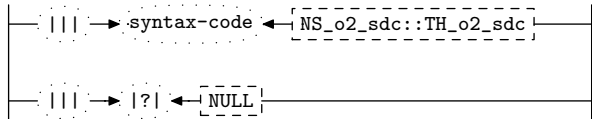
```
directive_ = sf-p2--;
```

89. *Rdirective's* subrule 2.

⟨*Rdirective* subrule 2 op directive 89⟩ ≡
directive_ = 0;
sf-p2_→*set_auto_delete*(*true*);
CAbs_lr1_sym * *sym* = **new** *Err_bad_directive*;
sym→*set_rc*(**sf-p2_*, __FILE__, __LINE__);
RSVP(*sym*);
rule_info_→*parser_*→*set_stop_parse*(*true*);

90. *Rsyntax_code* rule.

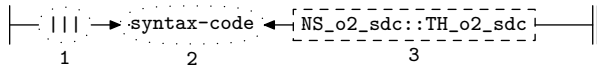
Rsyntax_code

**91. *Rsyntax_code* constructor directive.**

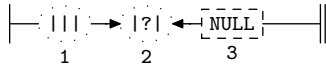
⟨*Rsyntax_code* constructor directive 91⟩ ≡
syntax_code_ = 0;

92. *Rsyntax_code* user-declaration directive.

⟨*Rsyntax_code* user-declaration directive 92⟩ ≡
T_syntax_code * *syntax_code_*;

93. *Rsyntax_code's* subrule 1.

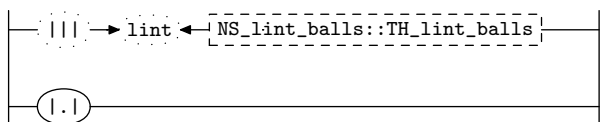
⟨*Rsyntax_code* subrule 1 op directive 93⟩ ≡
syntax_code_ = *sf-p2_*;

94. *Rsyntax_code's* subrule 2.

⟨*Rsyntax_code* subrule 2 op directive 94⟩ ≡
RSVP(*sf-p2_*);
rule_info_→*parser_*→*set_stop_parse*(*true*);

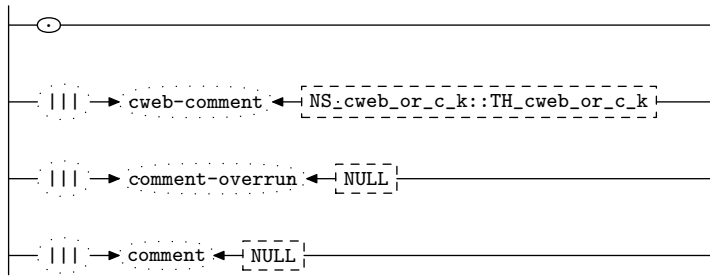
95. *Rlint_epi* rule.

Rlint_epi



96. Rdirective_cweb_k_epi rule.

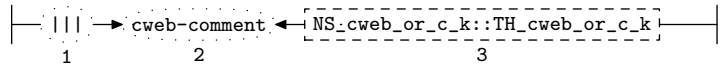
Rdirective_cweb_k_epi

**97. Rdirective_cweb_k_epi constructor directive.**

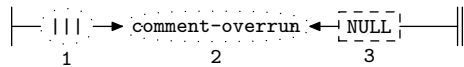
⟨Rdirective_cweb_k_epi constructor directive 97⟩ ≡
cweb_t_ = 0;

98. Rdirective_cweb_k_epi user-declaration directive.

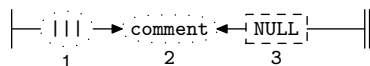
⟨Rdirective_cweb_k_epi user-declaration directive 98⟩ ≡
 AST * *cweb_t_*;

99. Rdirective_cweb_k_epi's subrule 2.

⟨Rdirective_cweb_k_epi subrule 2 op directive 99⟩ ≡
T_cweb_comment * *k* = *sf-p2_*;
 AST * *cwebk_t_* = new AST(**k*);
cweb_t_ = new AST();
T_cweb_marker * *cw* = new *T_cweb_marker*(*cweb_t_*);
cw-set_rc(**k*, __FILE__, __LINE__);
 AST::join_pts(**cweb_t_*, **cwebk_t_*);
 AST::set_content(**cweb_t_*, **cw*);

100. Rdirective_cweb_k_epi's subrule 3.

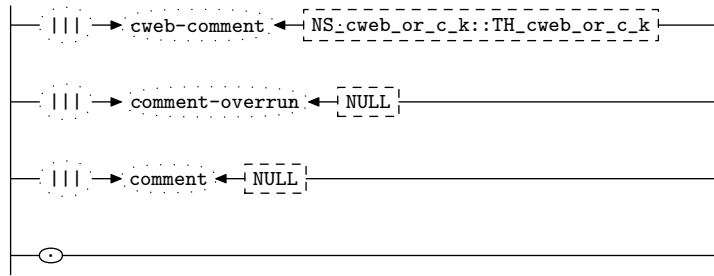
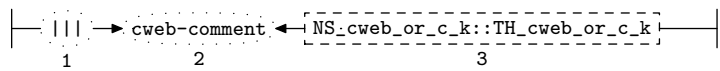
⟨Rdirective_cweb_k_epi subrule 3 op directive 100⟩ ≡
 RSVP(*sf-p2_*);
rule_info_.parser_→set_stop_parse(true);

101. Rdirective_cweb_k_epi's subrule 4.

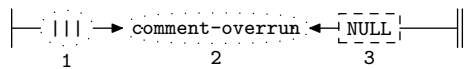
⟨Rdirective_cweb_k_epi subrule 4 op directive 101⟩ ≡
sf-p2_→set_auto_delete(true);

102. *Rcweb_k_epi* rule.

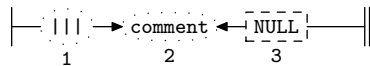
Rcweb_k_epi

103. *Rcweb_k_epi*'s subrule 1.

⟨Rcweb_k_epi subrule 1 op directive 103⟩ ≡
Csubrule_def * *fsm* = (*Csubrule_def* *) *rule_info...parser--fsm_tbl...*;
T_cweb_comment * *k* = *sf-p2...*;
 AST * *cwebk_t_* = new AST(**k*);
 AST * *cweb_t_* = new AST();
T_cweb_marker * *cw* = new *T_cweb_marker*(*cweb_t_*);
cw-set_rc(**k*, __FILE__, __LINE__);
 AST::*join_pts*(**cweb_t_*, **cwebk_t_*);
 AST::*set_content*(**cweb_t_*, **cw*);
fsm-subrule_def-add_cweb_marker(*cweb_t_*);

104. *Rcweb_k_epi*'s subrule 2.

⟨Rcweb_k_epi subrule 2 op directive 104⟩ ≡
 RSVP(*sf-p2...*);
rule_info...parser--set_stop_parse(*true*);

105. *Rcweb_k_epi*'s subrule 3.

⟨Rcweb_k_epi subrule 3 op directive 105⟩ ≡
sf-p2--set_auto_delete(*true*);

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

```
/*
  File: subrule_def.fsc
  Date and Time: Fri Jan  2 15:33:55 2015
*/
transitive      y
grammar-name    "subrule_def"
name-space      "NS_subrule_def"
thread-name     "TH_subrule_def"
monolithic      n
file-name       "subrule_def.fsc"
no-of-T         569
list-of-native-first-set-terminals 0
end-list-of-native-first-set-terminals
list-of-transitive-threads 1
  NS_subrule_vector::TH_subrule_vector
end-list-of-transitive-threads
list-of-used-threads 10
  NS_cweb_or_c_k::TH_cweb_or_c_k
  NS_dbl_colon::TH_dbl_colon
  NS_identifier::TH_identifier
  NS_lint_balls::TH_lint_balls
  NS_o2_sdc::TH_o2_sdc
  NS_parallel_oper::TH_parallel_oper
  NS_rhs_bnd::TH_rhs_bnd
  NS_rhs_component::TH_rhs_component
  NS_rtn_component::TH_rtn_component
  NS_subrule_vector::TH_subrule_vector
end-list-of-used-threads
fsm-comments
"Parse a subrule: into the valley of sin..."
```

107. Lr1 State Network.

\Rightarrow					State: 1 state type: s			
\leftarrow	rule	\rightarrow	R# sr# Po	\leftarrow	subrule element	\rightarrow	Brn Gto Red LA	
c	Rvector		2 1 1	->	NS_subrule_vector::TH_subrule_vector		1 2 3	
c	Rsubrule_def		1 1 1	Rvector	<u> .</u>		1 4 13	
\Rightarrow	arbitration-code: ϵ				State: 2 state type: s			
\leftarrow	rule	\rightarrow	R# sr# Po	\leftarrow	subrule element	\rightarrow	Brn Gto Red LA	
t	Rvector		2 1 2	->			1 3 3	
\Rightarrow	->				State: 3 state type: r			
\leftarrow	rule	\rightarrow	R# sr# Po	\leftarrow	subrule element	\rightarrow	Brn Gto Red LA	
t	Rvector		2 1 3				1 0 3 1	
\Rightarrow	Rvector				State: 4 state type: s			
\leftarrow	rule	\rightarrow	R# sr# Po	\leftarrow	subrule element	\rightarrow	Brn Gto Red LA	
t	Rsubrule_def		1 1 2	.			1 5 13	
\Rightarrow	.				State: 5 state type: s			
\leftarrow	rule	\rightarrow	R# sr# Po	\leftarrow	subrule element	\rightarrow	Brn Gto Red LA	
c	Rlint_epi		34 1 1	lint	NS_lint_balls::TH_lint_balls		5 24 25	
c	Rlint_epi		34 2 1	.			5 26 26	
t	Rsubrule_def		1 1 3	Rcommon_comments	<u>Rrhs_expr</u>		1 6 13	
c	Rcommon_comments		3 1 1	Rlint_epi	<u>Rcweb_k_epi</u> ^c <u>Rlint_epi</u>		5 57 59	
\Rightarrow	Rcommon_comments				State: 6 state type: s/r			
\leftarrow	rule	\rightarrow	R# sr# Po	\leftarrow	subrule element	\rightarrow	Brn Gto Red LA	
c	RTorRcomponents_epi		16 1 1	ϵ			6 0 6 1	
c	Rstart_thread		5 1 1		NS_parallel_oper::TH_parallel_oper		6 7 9	
c	Rcalled_proc_op		13 1 1	t	NULL		6 7 10	
c	RTorRcomponent		18 1 1	rule-in-stbl	NS_rhs_component::TH_rhs_component		6 7 12	
c	RTorRcomponent		18 2 1	T-in-stbl	NULL		6 7 11	
c	RTorRcomponent		18 3 1	?	NULL		6 7 8	
t	Rsubrule_def		1 1 4	Rrhs_expr			1 13 13	
c	Rrhs_expr		4 3 1	Rstart_thread	<u>Rlint_epi</u>		6 14 27	
c	Rrhs_expr		4 2 1	Rstart_thread	<u>Rlint_epi</u>		6 14 31	
c	Rrhs_expr		4 4 1	Rcalled_proc_op	<u>Rlint_epi</u>		6 32 46	
c	Rrhs_expr		4 5 1	Rcalled_proc_op	<u>Rlint_epi</u>		6 32 42	
c	Rrhs_expr		4 1 1	RTorRcomponents_epi	<u> .</u>		6 47 51	
c	RTorRcomponents_epi		16 2 1	RTorRcomponents			6 52 52	
c	RTorRcomponents		17 2 1	RTorRcomponents	<u>RTorRcomponent</u>		6 52 54	
c	RTorRcomponents		17 1 1	RTorRcomponent	<u>Rlint_epi</u>		6 55 56	
\Rightarrow	arbitration-code: AR_Rstart_thread				State: 7 state type: s			
\leftarrow	rule	\rightarrow	R# sr# Po	\leftarrow	subrule element	\rightarrow	Brn Gto Red LA	
t	RTorRcomponent		18 3 2	?			6 8 8	
t	Rstart_thread		5 1 2				6 9 9	
t	Rcalled_proc_op		13 1 2	t			6 10 10	
t	RTorRcomponent		18 2 2	T-in-stbl			6 11 11	
t	RTorRcomponent		18 1 2	rule-in-stbl			6 12 12	

\Rightarrow ?					State: 8 state type: r		
← rule	→ R#	sr#	Po	←	subrule element	→	Brn Gto Red LA
t RForRcomponent	18	3	3				6 0 8 2
\Rightarrow <i>arbitration-code: ϵ</i>					State: 9 state type: r		
← rule	→ R#	sr#	Po	←	subrule element	→	Brn Gto Red LA
t Rstart_thread	5	1	3				6 0 9 2
\Rightarrow t					State: 10 state type: r		
← rule	→ R#	sr#	Po	←	subrule element	→	Brn Gto Red LA
t Rcalled_proc_op	13	1	3				6 0 10 2
\Rightarrow <i>T-in-stbl</i>					State: 11 state type: r		
← rule	→ R#	sr#	Po	←	subrule element	→	Brn Gto Red LA
t RForRcomponent	18	2	3				6 0 11 2
\Rightarrow <i>rule-in-stbl</i>					State: 12 state type: r		
← rule	→ R#	sr#	Po	←	subrule element	→	Brn Gto Red LA
t RForRcomponent	18	1	3				6 0 12 2
\Rightarrow <i>Rrhs_expr</i>					State: 13 state type: r		
← rule	→ R#	sr#	Po	←	subrule element	→	Brn Gto Red LA
t Rsubrule_def	1	1	5				1 0 13 3
\Rightarrow <i>Rstart_thread</i>					State: 14 state type: s		
← rule	→ R#	sr#	Po	←	subrule element	→	Brn Gto Red LA
c Rlint_epi	34	1	1	lint NS_lint_balls::TH_lint_balls			14 24 25
c Rlint_epi	34	2	1	.			14 26 26
t Rrhs_expr	4	3	2	Rlint_epi <u>Rbal_thread_expr</u>			6 15 27
t Rrhs_expr	4	2	2	Rlint_epi <u>Rbal_thread_expr</u>			6 15 31
\Rightarrow <i>Rlint_epi</i>					State: 15 state type: s		
← rule	→ R#	sr#	Po	←	subrule element	→	Brn Gto Red LA
c Rrtnd_T	7	3	1	?			15 60 60
c Rrtnd_T	7	1	1	T-in-stbl NS_rtn_component::TH_rtn_component			15 61 64
c Rrtnd_T	7	2	1	? NULL			15 61 62
c Rrtnd_T	7	4	1	NULL			15 61 63
t Rrhs_expr	4	3	3	Rbal_thread_expr <u>Rlint_epi</u>			6 16 27
t Rrhs_expr	4	2	3	Rbal_thread_expr <u>Rlint_epi</u>			6 16 31
c Rbal_thread_expr	6	1	1	Rrtnd_T <u>Rlint_epi</u>			15 65 72
\Rightarrow <i>Rbal_thread_expr</i>					State: 16 state type: s		
← rule	→ R#	sr#	Po	←	subrule element	→	Brn Gto Red LA
c Rlint_epi	34	1	1	lint NS_lint_balls::TH_lint_balls			16 24 25
c Rlint_epi	34	2	1	.			16 26 26
t Rrhs_expr	4	3	4	Rlint_epi <u> . </u>			6 17 27
t Rrhs_expr	4	2	4	Rlint_epi <u> . </u>			6 17 31
\Rightarrow <i>Rlint_epi</i>					State: 17 state type: s		
← rule	→ R#	sr#	Po	←	subrule element	→	Brn Gto Red LA
t Rrhs_expr	4	3	5	.			6 18 27

t Rrhs_expr		4	2	5	.			6	18	31	
⇒ .						State: 18 state type: ^s					
← rule	→ R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA	
c Rcalled_thd_eos	21	2	1		?		18	81	81		
c Rchained_dispatcher	19	1	1		rule-in-stbl NS_rhs_component::TH_rhs_component		18	82	85		
c Rchained_dispatcher	19	3	1		? NULL		18	82	83		
c Rchained_dispatcher	19	2	1		T-in-stbl NULL		18	82	84		
c Rcalled_thd_eos	21	1	1		eosubrule NS_rhs_bnd::TH_rhs_bnd		18	82	86		
t Rrhs_expr	4	3	6		Rchained_dispatcher <u>Rlint_epi</u>		6	19	27		
t Rrhs_expr	4	2	6		Rcalled_thd_eos <u>Rlint_epi</u>		6	28	31		
⇒ Rchained_dispatcher						State: 19 state type: ^s					
← rule	→ R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA	
c Rlint_epi	34	1	1		lint NS_lint_balls::TH_lint_balls		19	24	25		
c Rlint_epi	34	2	1		.		19	26	26		
t Rrhs_expr	4	3	7		Rlint_epi <u>Rcalled_thd_eos</u>		6	20	27		
⇒ Rlint_epi						State: 20 state type: ^s					
← rule	→ R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA	
c Rcalled_thd_eos	21	2	1		?		20	81	81		
c Rcalled_thd_eos	21	1	1		eosubrule NS_rhs_bnd::TH_rhs_bnd		20	87	86		
t Rrhs_expr	4	3	8		Rcalled_thd_eos <u>Rlint_epi</u>		6	21	27		
⇒ Rcalled_thd_eos						State: 21 state type: ^s					
← rule	→ R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA	
c Rlint_epi	34	1	1		lint NS_lint_balls::TH_lint_balls		21	24	25		
c Rlint_epi	34	2	1		.		21	26	26		
t Rrhs_expr	4	3	9		Rlint_epi <u>Rpotential_codeblk^ε Rlint_epi</u>		6	22	27		
⇒ Rlint_epi						State: 22 state type: ^{s/r}					
← rule	→ R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA	
c Rpotential_directives	24	1	1	ε			22	0	22	2	
c Rpotential_directives	24	2	1	{			22	88	93		
t Rrhs_expr	4	3	10		Rpotential_codeblk <u>Rlint_epi</u>		6	23	27		
c Rpotential_codeblk	23	1	1		Rpotential_directives		22	94	94		
⇒ Rpotential_codeblk						State: 23 state type: ^s					
← rule	→ R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA	
c Rlint_epi	34	1	1		lint NS_lint_balls::TH_lint_balls		23	24	25		
c Rlint_epi	34	2	1		.		23	26	26		
t Rrhs_expr	4	3	11		Rlint_epi		6	27	27		
⇒ arbitration-code: ε						State: 24 state type: ^s					
← rule	→ R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA	
t Rlint_epi	34	1	2		lint		23	25	25		
⇒ lint						State: 25 state type: ^r					
← rule	→ R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA	
t Rlint_epi	34	1	3				23	0	25	4	
⇒ .						State: 26 state type: ^r					

←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
t	Rlint_epi		34	2	2				23	0	26	4
⇒ <i>Rlint_epi</i> State: 27 state type: <i>r</i>												
←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
t	Rrhs_expr		4	3	12				6	0	27	3
⇒ <i>Rcalled_thd_eos</i> State: 28 state type: <i>s</i>												
←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
c	Rlint_epi		34	1	1		lint NS_lint_balls::TH_lint_balls		28	24	25	
c	Rlint_epi		34	2	1	.			28	26	26	
t	Rrhs_expr		4	2	7		Rlint_epi <u>Rpotential_codeblk^ε Rlint_epi</u>		6	29	31	
⇒ <i>Rlint_epi</i> State: 29 state type: <i>s/r</i>												
←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
c	Rpotential_directives		24	1	1	ε			29	0	29	2
c	Rpotential_directives		24	2	1	{			29	88	93	
t	Rrhs_expr		4	2	8		Rpotential_codeblk <u>Rlint_epi</u>		6	30	31	
c	Rpotential_codeblk		23	1	1		Rpotential_directives		29	94	94	
⇒ <i>Rpotential_codeblk</i> State: 30 state type: <i>s</i>												
←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
c	Rlint_epi		34	1	1		lint NS_lint_balls::TH_lint_balls		30	24	25	
c	Rlint_epi		34	2	1	.			30	26	26	
t	Rrhs_expr		4	2	9		Rlint_epi		6	31	31	
⇒ <i>Rlint_epi</i> State: 31 state type: <i>r</i>												
←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
t	Rrhs_expr		4	2	10				6	0	31	3
⇒ <i>Rcalled_proc_op</i> State: 32 state type: <i>s</i>												
←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
c	Rlint_epi		34	1	1		lint NS_lint_balls::TH_lint_balls		32	24	25	
c	Rlint_epi		34	2	1	.			32	26	26	
t	Rrhs_expr		4	4	2		Rlint_epi <u>Rbal_called_proc_expr</u>		6	33	46	
t	Rrhs_expr		4	5	2		Rlint_epi <u>Rbal_called_proc_expr</u>		6	33	42	
⇒ <i>Rlint_epi</i> State: 33 state type: <i>s</i>												
←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
c	Rrtned_T		7	3	1	?			33	60	60	
c	Rrtned_T		7	1	1		T-in-stbl NS_rtn_component::TH_rtn_component		33	61	64	
c	Rrtned_T		7	2	1		? NULL		33	61	62	
c	Rrtned_T		7	4	1		NULL		33	61	63	
c	Rbal_called_proc_expr		14	1	1		Rrtned_T <u>Rlint_epi</u>		33	95	101	
t	Rrhs_expr		4	4	3		Rbal_called_proc_expr <u>Rlint_epi</u>		6	34	46	
t	Rrhs_expr		4	5	3		Rbal_called_proc_expr <u>Rlint_epi</u>		6	34	42	
⇒ <i>Rbal_called_proc_expr</i> State: 34 state type: <i>s</i>												
←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
c	Rlint_epi		34	1	1		lint NS_lint_balls::TH_lint_balls		34	24	25	
c	Rlint_epi		34	2	1	.			34	26	26	
t	Rrhs_expr		4	4	4		Rlint_epi <u> .</u>		6	35	46	

t Rrhs_expr	4	5	4	Rlint_epi .		6	35	42		
\Rightarrow <i>Rlint_epi</i>					State: 35 state type: ^s					
← rule	→ R#	sr#	Po	← subrule element		→ Brn	Gto	Red	LA	
t Rrhs_expr	4	4	5	.		6	36	46		
t Rrhs_expr	4	5	5	.		6	36	42		
\Rightarrow .					State: 36 state type: ^s					
← rule	→ R#	sr#	Po	← subrule element		→ Brn	Gto	Red	LA	
c Rcalled_proc_eos	22	2	1	?		36	102	102		
c Rchained_dispatcher	19	1	1	rule-in-stbl NS_rhs_component::TH_rhs_component		36	103	85		
c Rchained_dispatcher	19	3	1	? NULL		36	103	83		
c Rcalled_proc_eos	22	1	1	eosubrule NS_rhs_bnd::TH_rhs_bnd		36	103	104		
c Rchained_dispatcher	19	2	1	T-in-stbl NULL		36	103	84		
t Rrhs_expr	4	5	6	Rchained_dispatcher <u>Rlint_epi</u>		6	37	42		
t Rrhs_expr	4	4	6	Rcalled_proc_eos <u>Rlint_epi</u>		6	43	46		
\Rightarrow <i>Rchained_dispatcher</i>					State: 37 state type: ^s					
← rule	→ R#	sr#	Po	← subrule element		→ Brn	Gto	Red	LA	
c Rlint_epi	34	1	1	lint NS_lint_balls::TH_lint_balls		37	24	25		
c Rlint_epi	34	2	1	.		37	26	26		
t Rrhs_expr	4	5	7	Rlint_epi <u>Rcalled_proc_eos</u>		6	38	42		
\Rightarrow <i>Rlint_epi</i>					State: 38 state type: ^s					
← rule	→ R#	sr#	Po	← subrule element		→ Brn	Gto	Red	LA	
c Rcalled_proc_eos	22	2	1	?		38	102	102		
c Rcalled_proc_eos	22	1	1	eosubrule NS_rhs_bnd::TH_rhs_bnd		38	105	104		
t Rrhs_expr	4	5	8	Rcalled_proc_eos <u>Rlint_epi</u>		6	39	42		
\Rightarrow <i>Rcalled_proc_eos</i>					State: 39 state type: ^s					
← rule	→ R#	sr#	Po	← subrule element		→ Brn	Gto	Red	LA	
c Rlint_epi	34	1	1	lint NS_lint_balls::TH_lint_balls		39	24	25		
c Rlint_epi	34	2	1	.		39	26	26		
t Rrhs_expr	4	5	9	Rlint_epi <u>Rpotential_codeblk</u> ^ε <u>Rlint_epi</u>		6	40	42		
\Rightarrow <i>Rlint_epi</i>					State: 40 state type: ^{s/r}					
← rule	→ R#	sr#	Po	← subrule element		→ Brn	Gto	Red	LA	
c Rpotential_directives	24	1	1	ε		40	0	40	2	
c Rpotential_directives	24	2	1	{		40	88	93		
t Rrhs_expr	4	5	10	Rpotential_codeblk <u>Rlint_epi</u>		6	41	42		
c Rpotential_codeblk	23	1	1	Rpotential_directives		40	94	94		
\Rightarrow <i>Rpotential_codeblk</i>					State: 41 state type: ^s					
← rule	→ R#	sr#	Po	← subrule element		→ Brn	Gto	Red	LA	
c Rlint_epi	34	1	1	lint NS_lint_balls::TH_lint_balls		41	24	25		
c Rlint_epi	34	2	1	.		41	26	26		
t Rrhs_expr	4	5	11	Rlint_epi		6	42	42		
\Rightarrow <i>Rlint_epi</i>					State: 42 state type: ^r					
← rule	→ R#	sr#	Po	← subrule element		→ Brn	Gto	Red	LA	
t Rrhs_expr	4	5	12			6	0	42	3	

\Rightarrow <i>Rcalled_proc_eos</i>		State: 43 state type: <i>s</i>				
\leftarrow	rule	\rightarrow	R# sr# Po	\leftarrow subrule element	\rightarrow	Brn Gto Red LA
c	Rlint_epi		34 1 1	lint NS_lint_balls::TH_lint_balls		43 24 25
c	Rlint_epi		34 2 1	.		43 26 26
t	Rrhs_expr		4 4 7	Rlint_epi <u>Rpotential_codeblk^e Rlint_epi</u>		6 44 46
\Rightarrow <i>Rlint_epi</i>		State: 44 state type: <i>s/r</i>				
\leftarrow	rule	\rightarrow	R# sr# Po	\leftarrow subrule element	\rightarrow	Brn Gto Red LA
c	Rpotential_directives		24 1 1	ϵ		44 0 44 2
c	Rpotential_directives		24 2 1	{		44 88 93
t	Rrhs_expr		4 4 8	Rpotential_codeblk <u>Rlint_epi</u>		6 45 46
c	Rpotential_codeblk		23 1 1	Rpotential_directives		44 94 94
\Rightarrow <i>Rpotential_codeblk</i>		State: 45 state type: <i>s</i>				
\leftarrow	rule	\rightarrow	R# sr# Po	\leftarrow subrule element	\rightarrow	Brn Gto Red LA
c	Rlint_epi		34 1 1	lint NS_lint_balls::TH_lint_balls		45 24 25
c	Rlint_epi		34 2 1	.		45 26 26
t	Rrhs_expr		4 4 9	Rlint_epi		6 46 46
\Rightarrow <i>Rlint_epi</i>		State: 46 state type: <i>r</i>				
\leftarrow	rule	\rightarrow	R# sr# Po	\leftarrow subrule element	\rightarrow	Brn Gto Red LA
t	Rrhs_expr		4 4 10			6 0 46 3
\Rightarrow <i>RTorRcomponents_epi</i>		State: 47 state type: <i>s</i>				
\leftarrow	rule	\rightarrow	R# sr# Po	\leftarrow subrule element	\rightarrow	Brn Gto Red LA
t	Rrhs_expr		4 1 2	.		6 48 51
\Rightarrow <i> . </i>		State: 48 state type: <i>s</i>				
\leftarrow	rule	\rightarrow	R# sr# Po	\leftarrow subrule element	\rightarrow	Brn Gto Red LA
c	Rmust_eos		20 2 1	?		48 106 106
c	Rmust_eos		20 1 1	eosubrule NS_rhs_bnd::TH_rhs_bnd		48 107 109
c	Rmust_eos		20 3 1	? NULL		48 107 108
t	Rrhs_expr		4 1 3	Rmust_eos <u>Rpotential_codeblk^e Rlint_epi</u>		6 49 51
\Rightarrow <i>Rmust_eos</i>		State: 49 state type: <i>s/r</i>				
\leftarrow	rule	\rightarrow	R# sr# Po	\leftarrow subrule element	\rightarrow	Brn Gto Red LA
c	Rpotential_directives		24 1 1	ϵ		49 0 49 2
c	Rpotential_directives		24 2 1	{		49 88 93
t	Rrhs_expr		4 1 4	Rpotential_codeblk <u>Rlint_epi</u>		6 50 51
c	Rpotential_codeblk		23 1 1	Rpotential_directives		49 94 94
\Rightarrow <i>Rpotential_codeblk</i>		State: 50 state type: <i>s</i>				
\leftarrow	rule	\rightarrow	R# sr# Po	\leftarrow subrule element	\rightarrow	Brn Gto Red LA
c	Rlint_epi		34 1 1	lint NS_lint_balls::TH_lint_balls		50 24 25
c	Rlint_epi		34 2 1	.		50 26 26
t	Rrhs_expr		4 1 5	Rlint_epi		6 51 51
\Rightarrow <i>Rlint_epi</i>		State: 51 state type: <i>r</i>				
\leftarrow	rule	\rightarrow	R# sr# Po	\leftarrow subrule element	\rightarrow	Brn Gto Red LA
t	Rrhs_expr		4 1 6			6 0 51 3

\Rightarrow <i>RTorRcomponents</i>					State: 52 state type: <i>s/r</i>			
←	rule	→	R# sr# Po	←	subrule element	→	Brn Gto Red LA	
t	RTorRcomponents.epi		16 2 2				6 0 52 1	
c	RTorRcomponent		18 1 1		rule-in-stbl NS_rhs_component::TH_rhs_component		52 110 12	
c	RTorRcomponent		18 2 1		T-in-stbl NULL		52 110 11	
c	RTorRcomponent		18 3 1		? NULL		52 110 8	
t	RTorRcomponents		17 2 2		RTorRcomponent <u>Rlint.epi</u>		6 53 54	
\Rightarrow <i>RTorRcomponent</i>					State: 53 state type: <i>s</i>			
←	rule	→	R# sr# Po	←	subrule element	→	Brn Gto Red LA	
c	Rlint.epi		34 1 1		lint NS_lint_balls::TH_lint_balls		53 24 25	
c	Rlint.epi		34 2 1	.			53 26 26	
t	RTorRcomponents		17 2 3		Rlint.epi		6 54 54	
\Rightarrow <i>Rlint.epi</i>					State: 54 state type: <i>r</i>			
←	rule	→	R# sr# Po	←	subrule element	→	Brn Gto Red LA	
t	RTorRcomponents		17 2 4				6 0 54 2	
\Rightarrow <i>RTorRcomponent</i>					State: 55 state type: <i>s</i>			
←	rule	→	R# sr# Po	←	subrule element	→	Brn Gto Red LA	
c	Rlint.epi		34 1 1		lint NS_lint_balls::TH_lint_balls		55 24 25	
c	Rlint.epi		34 2 1	.			55 26 26	
t	RTorRcomponents		17 1 2		Rlint.epi		6 56 56	
\Rightarrow <i>Rlint.epi</i>					State: 56 state type: <i>r</i>			
←	rule	→	R# sr# Po	←	subrule element	→	Brn Gto Red LA	
t	RTorRcomponents		17 1 3				6 0 56 2	
\Rightarrow <i>Rlint.epi</i>					State: 57 state type: <i>s/r</i>			
←	rule	→	R# sr# Po	←	subrule element	→	Brn Gto Red LA	
c	Rcweb_k.epi		36 4 1	ε			57 0 57 2	
c	Rcweb_k.epi		36 1 1		cweb-comment NS_cweb_or_c.k::TH_cweb_or_c.k		57 111 113	
c	Rcweb_k.epi		36 2 1		comment-overrun NULL		57 111 114	
c	Rcweb_k.epi		36 3 1		comment NULL		57 111 112	
t	Rcommon_comments		3 1 2		Rcweb_k.epi <u>Rlint.epi</u>		5 58 59	
\Rightarrow <i>Rcweb_k.epi</i>					State: 58 state type: <i>s</i>			
←	rule	→	R# sr# Po	←	subrule element	→	Brn Gto Red LA	
c	Rlint.epi		34 1 1		lint NS_lint_balls::TH_lint_balls		58 24 25	
c	Rlint.epi		34 2 1	.			58 26 26	
t	Rcommon_comments		3 1 3		Rlint.epi		5 59 59	
\Rightarrow <i>Rlint.epi</i>					State: 59 state type: <i>r</i>			
←	rule	→	R# sr# Po	←	subrule element	→	Brn Gto Red LA	
t	Rcommon_comments		3 1 4				5 0 59 2	
\Rightarrow <i> ? </i>					State: 60 state type: <i>r</i>			
←	rule	→	R# sr# Po	←	subrule element	→	Brn Gto Red LA	
t	Rrtnded_T		7 3 2				15 0 60 2	
\Rightarrow <i> arbitration-code: ε</i>					State: 61 state type: <i>s</i>			

←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
t	Rrtned.T		7	2	2	?			15	62	62	
t	Rrtned.T		7	4	2				15	63	63	
t	Rrtned.T		7	1	2	T-in-stbl			15	64	64	
⇒ ?												
←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
t	Rrtned.T		7	2	3				15	0	62	2
⇒ <i>arbitration-code: ε</i>												
←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
t	Rrtned.T		7	4	3				15	0	63	2
⇒ <i>T-in-stbl</i>												
←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
t	Rrtned.T		7	1	3				15	0	64	2
⇒ <i>Rrtned.T</i>												
←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
c	Rlint.epi		34	1	1	lint NS_lint_balls::TH_lint_balls			65	24	25	
c	Rlint.epi		34	2	1	.			65	26	26	
t	Rbal.thread.expr		6	1	2	Rlint.epi <u>Rcalled.thread</u>			15	66	72	
⇒ <i>Rlint.epi</i>												
←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
c	Rns		10	3	1	?			66	67	67	
c	Rns		10	1	1	identifier NULL			66	68	70	
c	RNULL		9	1	1	# NULL NS_identifier::TH_identifier			66	68	71	
c	Rns		10	2	1	? NULL			66	68	69	
t	Rbal.thread.expr		6	1	3	Rcalled.thread			15	72	72	
c	Rcalled.thread		8	2	1	RNULL			66	73	73	
c	Rcalled.thread		8	1	1	Rns <u>Rdbl.colon</u>			66	74	80	
⇒ ?												
←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
t	Rns		10	3	2				66	0	67	5
⇒ <i>arbitration-code: ε</i>												
←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
t	Rns		10	2	2	?			66	69	69	
t	Rns		10	1	2	identifier			66	70	70	
t	RNULL		9	1	2	# NULL			66	71	71	
⇒ ?												
←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
t	Rns		10	2	3				66	0	69	5
⇒ <i>identifier</i>												
←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
t	Rns		10	1	3				66	0	70	5
⇒ <i>#NULL</i>												
State: 62 state type: <i>r</i>												
State: 63 state type: <i>r</i>												
State: 64 state type: <i>r</i>												
State: 65 state type: <i>s</i>												
State: 66 state type: <i>s</i>												
State: 67 state type: <i>r</i>												
State: 68 state type: <i>s</i>												
State: 69 state type: <i>r</i>												
State: 70 state type: <i>r</i>												
State: 71 state type: <i>r</i>												

← rule	→ R# sr# Po ←	← subrule element	→ Brn Gto Red LA
t RNULL	9 1 3		66 0 71 2
⇒ <i>Rcalled_thread</i>		State: 72 state type: <i>r</i>	
← rule	→ R# sr# Po ←	← subrule element	→ Brn Gto Red LA
t Rbal_thread.expr	6 1 4		15 0 72 2
⇒ <i>RNULL</i>		State: 73 state type: <i>r</i>	
← rule	→ R# sr# Po ←	← subrule element	→ Brn Gto Red LA
t Rcalled_thread	8 2 2		66 0 73 2
⇒ <i>Rns</i>		State: 74 state type: <i>s</i>	
← rule	→ R# sr# Po ←	← subrule element	→ Brn Gto Red LA
c Rdbl.colon	11 3 1 ?		74 115 115
c Rdbl.colon	11 2 1 ? NULL		74 116 117
c Rdbl.colon	11 1 1 :: NS_dbl.colon::TH_dbl.colon		74 116 118
t Rcalled_thread	8 1 2 Rdbl.colon <u>Rth_name</u>		66 75 80
⇒ <i>Rdbl_colon</i>		State: 75 state type: <i>s</i>	
← rule	→ R# sr# Po ←	← subrule element	→ Brn Gto Red LA
c Rth_name	12 3 1 ?		75 76 76
c Rth_name	12 1 1 identifier NS_identifier::TH_identifier		75 77 79
c Rth_name	12 2 1 ? NULL		75 77 78
t Rcalled_thread	8 1 3 Rth_name		66 80 80
⇒ ?		State: 76 state type: <i>r</i>	
← rule	→ R# sr# Po ←	← subrule element	→ Brn Gto Red LA
t Rth_name	12 3 2		75 0 76 2
⇒ <i>arbitration-code: ε</i>		State: 77 state type: <i>s</i>	
← rule	→ R# sr# Po ←	← subrule element	→ Brn Gto Red LA
t Rth_name	12 2 2 ?		75 78 78
t Rth_name	12 1 2 identifier		75 79 79
⇒ ?		State: 78 state type: <i>r</i>	
← rule	→ R# sr# Po ←	← subrule element	→ Brn Gto Red LA
t Rth_name	12 2 3		75 0 78 2
⇒ <i>identifier</i>		State: 79 state type: <i>r</i>	
← rule	→ R# sr# Po ←	← subrule element	→ Brn Gto Red LA
t Rth_name	12 1 3		75 0 79 2
⇒ <i>Rth_name</i>		State: 80 state type: <i>r</i>	
← rule	→ R# sr# Po ←	← subrule element	→ Brn Gto Red LA
t Rcalled_thread	8 1 4		66 0 80 2
⇒ ?		State: 81 state type: <i>r</i>	
← rule	→ R# sr# Po ←	← subrule element	→ Brn Gto Red LA
t Rcalled_thd.eos	21 2 2		18 0 81 2
⇒ <i>arbitration-code: ε</i>		State: 82 state type: <i>s</i>	
← rule	→ R# sr# Po ←	← subrule element	→ Brn Gto Red LA

t Rchained_dispatcher	19	3	2	?		18	83	83		
t Rchained_dispatcher	19	2	2	T-in-stbl		18	84	84		
t Rchained_dispatcher	19	1	2	rule-in-stbl		18	85	85		
t Rcalled_thd_eos	21	1	2	eosubrule		18	86	86		
\Rightarrow ?						State: 83 state type: r				
← rule	→ R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
t Rchained_dispatcher	19	3	3			18	0	83	2	
\Rightarrow T-in-stbl						State: 84 state type: r				
← rule	→ R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
t Rchained_dispatcher	19	2	3			18	0	84	2	
\Rightarrow rule-in-stbl						State: 85 state type: r				
← rule	→ R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
t Rchained_dispatcher	19	1	3			18	0	85	2	
\Rightarrow eosubrule						State: 86 state type: r				
← rule	→ R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
t Rcalled_thd_eos	21	1	3			18	0	86	2	
\Rightarrow arbitration-code: ϵ						State: 87 state type: s				
← rule	→ R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
t Rcalled_thd_eos	21	1	2	eosubrule		20	86	86		
\Rightarrow {						State: 88 state type: s				
← rule	→ R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
c Rlint_epi	34	1	1	lint NS_lint_balls::TH_lint_balls		88	24	25		
c Rlint_epi	34	2	1	.		88	26	26		
t Rpotential_directives	24	2	2	Rlint_epi <u>Rmust_directive_phrase</u>		22	89	93		
\Rightarrow Rlint_epi						State: 89 state type: s/r				
← rule	→ R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
c Rdirective_cweb_k_epi	35	1	1	ϵ		89	0	89	2	
c Rdirective_cweb_k_epi	35	2	1	cweb-comment NS_cweb_or_c.k::TH_cweb_or_c.k		89	119	121		
c Rdirective_cweb_k_epi	35	3	1	comment-overflow NULL		89	119	122		
c Rdirective_cweb_k_epi	35	4	1	comment NULL		89	119	120		
t Rpotential_directives	24	2	3	Rmust_directive_phrase <u>Rmaybe_more_directives</u> ^{ϵ} <u>Rclose_brace</u>		22	90	93		
c Rmust_directive_phrase	25	1	1	Rdirective_cweb_k_epi <u>Rlint_epi</u>		89	123	127		
\Rightarrow Rmust_directive_phrase						State: 90 state type: s/r^2				
← rule	→ R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
c Rdirective_cweb_k_epi	35	1	1	ϵ		90	0	90	2	
c Rmaybe_more_directives	28	1	1	ϵ		90	0	90	6	
c Rdirective	32	1	1	# op NS_identifier::TH_identifier		90	128	130		
c Rdirective_cweb_k_epi	35	2	1	cweb-comment NS_cweb_or_c.k::TH_cweb_or_c.k		90	128	121		
c Rdirective	32	2	1	? NULL		90	128	129		
c Rdirective_cweb_k_epi	35	3	1	comment-overflow NULL		90	128	122		
c Rdirective_cweb_k_epi	35	4	1	comment NULL		90	128	120		
t Rpotential_directives	24	2	4	Rmaybe_more_directives <u>Rclose_brace</u>		22	91	93		
c Rmaybe_more_directives	28	2	1	Rmaybe_directive_phrases		90	131	131		
c Rmaybe_directive_phrases	29	2	1	Rmaybe_directive_phrases <u>Rmaybe_directive_phrase</u>		90	131	132		

c	Rmaybe_directive_phrases	29	1	1	Rmaybe_directive_phrase		90	141	141
c	Rmaybe_directive_phrase	30	2	1	Rdirective <u>Rsyntax_code</u>		90	133	135
c	Rmaybe_directive_phrase	30	1	1	Rdirective_cweb_k.epi <u>Rlint_epi</u>		90	136	140
⇒ <i>Rmaybe_more_directives</i>						State: 91 state type: <i>s</i>			
←	rule	→	R#	sr#	Po	←	subrule element	→	Brn Gto Red LA
c	Rclose_brace		27	1	1	?		91	142 142
c	Rclose_brace		27	2	1	}		91	143 143
t	Rpotential_directives		24	2	5	Rclose_brace <u>Rlint_epi</u>		22	92 93
⇒ <i>Rclose_brace</i>						State: 92 state type: <i>s</i>			
←	rule	→	R#	sr#	Po	←	subrule element	→	Brn Gto Red LA
c	Rlint_epi		34	1	1	lint NS_lint_balls::TH_lint_balls		92	24 25
c	Rlint_epi		34	2	1	.		92	26 26
t	Rpotential_directives		24	2	6	Rlint_epi		22	93 93
⇒ <i>Rlint_epi</i>						State: 93 state type: <i>r</i>			
←	rule	→	R#	sr#	Po	←	subrule element	→	Brn Gto Red LA
t	Rpotential_directives		24	2	7			22	0 93 2
⇒ <i>Rpotential_directives</i>						State: 94 state type: <i>r</i>			
←	rule	→	R#	sr#	Po	←	subrule element	→	Brn Gto Red LA
t	Rpotential_codeblk		23	1	2			22	0 94 2
⇒ <i>Rrtnd_T</i>						State: 95 state type: <i>s</i>			
←	rule	→	R#	sr#	Po	←	subrule element	→	Brn Gto Red LA
c	Rlint_epi		34	1	1	lint NS_lint_balls::TH_lint_balls		95	24 25
c	Rlint_epi		34	2	1	.		95	26 26
t	Rbal_called_proc_expr		14	1	2	Rlint_epi <u>Rcalled_proc_name</u>		33	96 101
⇒ <i>Rlint_epi</i>						State: 96 state type: <i>s</i>			
←	rule	→	R#	sr#	Po	←	subrule element	→	Brn Gto Red LA
c	Rns		10	3	1	?		96	67 67
c	Rns		10	1	1	identifier NULL		96	68 70
c	RNULL		9	1	1	# NULL NS_identifier::TH_identifier		96	68 71
c	Rns		10	2	1	? NULL		96	68 69
c	Rcalled_proc_name		15	2	1	RNULL		96	97 97
c	Rcalled_proc_name		15	1	1	Rns <u>Rdbl_colon</u>		96	98 100
t	Rbal_called_proc_expr		14	1	3	Rcalled_proc_name		33	101 101
⇒ <i>RNULL</i>						State: 97 state type: <i>r</i>			
←	rule	→	R#	sr#	Po	←	subrule element	→	Brn Gto Red LA
t	Rcalled_proc_name		15	2	2			96	0 97 2
⇒ <i>Rns</i>						State: 98 state type: <i>s</i>			
←	rule	→	R#	sr#	Po	←	subrule element	→	Brn Gto Red LA
c	Rdbl_colon		11	3	1	?		98	115 115
c	Rdbl_colon		11	2	1	? NULL		98	116 117
c	Rdbl_colon		11	1	1	:: NS_dbl_colon::TH_dbl_colon		98	116 118
t	Rcalled_proc_name		15	1	2	Rdbl_colon <u>Rth_name</u>		96	99 100
⇒ <i>Rdbl_colon</i>						State: 99 state type: <i>s</i>			

	← rule → R# sr# Po ← subrule element → Brn Gto Red LA
c Rth_name	12 3 1 ? 99 76 76
c Rth_name	12 1 1 identifier NS.identifier::TH.identifier 99 77 79
c Rth_name	12 2 1 ? NULL 99 77 78
t Rcalled_proc_name	15 1 3 Rth_name 96 100 100
⇒ <i>Rth_name</i> State: 100 state type: <i>r</i>	
← rule → R# sr# Po ← subrule element → Brn Gto Red LA	
t Rcalled_proc_name	15 1 4 96 0 100 2
⇒ <i>Rcalled_proc_name</i> State: 101 state type: <i>r</i>	
← rule → R# sr# Po ← subrule element → Brn Gto Red LA	
t Rbal_called_proc_expr	14 1 4 33 0 101 2
⇒ <i> ? </i> State: 102 state type: <i>r</i>	
← rule → R# sr# Po ← subrule element → Brn Gto Red LA	
t Rcalled_proc_eos	22 2 2 36 0 102 2
⇒ <i> arbitration-code: ε</i> State: 103 state type: <i>s</i>	
← rule → R# sr# Po ← subrule element → Brn Gto Red LA	
t Rchained_dispatcher	19 3 2 ? 36 83 83
t Rchained_dispatcher	19 2 2 T-in-stbl 36 84 84
t Rchained_dispatcher	19 1 2 rule-in-stbl 36 85 85
t Rcalled_proc_eos	22 1 2 eosubrule 36 104 104
⇒ <i>eosubrule</i> State: 104 state type: <i>r</i>	
← rule → R# sr# Po ← subrule element → Brn Gto Red LA	
t Rcalled_proc_eos	22 1 3 36 0 104 2
⇒ <i> arbitration-code: ε</i> State: 105 state type: <i>s</i>	
← rule → R# sr# Po ← subrule element → Brn Gto Red LA	
t Rcalled_proc_eos	22 1 2 eosubrule 38 104 104
⇒ <i> ? </i> State: 106 state type: <i>r</i>	
← rule → R# sr# Po ← subrule element → Brn Gto Red LA	
t Rmust_eos	20 2 2 48 0 106 7
⇒ <i> arbitration-code: ε</i> State: 107 state type: <i>s</i>	
← rule → R# sr# Po ← subrule element → Brn Gto Red LA	
t Rmust_eos	20 3 2 ? 48 108 108
t Rmust_eos	20 1 2 eosubrule 48 109 109
⇒ <i> ? </i> State: 108 state type: <i>r</i>	
← rule → R# sr# Po ← subrule element → Brn Gto Red LA	
t Rmust_eos	20 3 3 48 0 108 7
⇒ <i>eosubrule</i> State: 109 state type: <i>r</i>	
← rule → R# sr# Po ← subrule element → Brn Gto Red LA	
t Rmust_eos	20 1 3 48 0 109 7
⇒ <i> arbitration-code: ε</i> State: 110 state type: <i>s</i>	
← rule → R# sr# Po ← subrule element → Brn Gto Red LA	

t RForRcomponent	18	3	2	?		52	8	8
t RForRcomponent	18	2	2	T-in-stbl		52	11	11
t RForRcomponent	18	1	2	rule-in-stbl		52	12	12
⇒ <i>arbitration-code: ε</i>						State: 111 state type: <i>s</i>		
← rule	→ R#	sr#	Po	←	subrule element	→ Brn	Gto	Red LA
t Rcweb_k_epi	36	3	2	comment		57	112	112
t Rcweb_k_epi	36	1	2	cweb-comment		57	113	113
t Rcweb_k_epi	36	2	2	comment-overrun		57	114	114
⇒ <i>comment</i>						State: 112 state type: <i>r</i>		
← rule	→ R#	sr#	Po	←	subrule element	→ Brn	Gto	Red LA
t Rcweb_k_epi	36	3	3			57	0	112 2
⇒ <i>cweb-comment</i>						State: 113 state type: <i>r</i>		
← rule	→ R#	sr#	Po	←	subrule element	→ Brn	Gto	Red LA
t Rcweb_k_epi	36	1	3			57	0	113 2
⇒ <i>comment-overrun</i>						State: 114 state type: <i>r</i>		
← rule	→ R#	sr#	Po	←	subrule element	→ Brn	Gto	Red LA
t Rcweb_k_epi	36	2	3			57	0	114 2
⇒ ?						State: 115 state type: <i>r</i>		
← rule	→ R#	sr#	Po	←	subrule element	→ Brn	Gto	Red LA
t Rdbl_colon	11	3	2			74	0	115 5
⇒ <i>arbitration-code: ε</i>						State: 116 state type: <i>s</i>		
← rule	→ R#	sr#	Po	←	subrule element	→ Brn	Gto	Red LA
t Rdbl_colon	11	2	2	?		74	117	117
t Rdbl_colon	11	1	2	::		74	118	118
⇒ ?						State: 117 state type: <i>r</i>		
← rule	→ R#	sr#	Po	←	subrule element	→ Brn	Gto	Red LA
t Rdbl_colon	11	2	3			74	0	117 5
⇒ ::						State: 118 state type: <i>r</i>		
← rule	→ R#	sr#	Po	←	subrule element	→ Brn	Gto	Red LA
t Rdbl_colon	11	1	3			74	0	118 5
⇒ <i>arbitration-code: ε</i>						State: 119 state type: <i>s</i>		
← rule	→ R#	sr#	Po	←	subrule element	→ Brn	Gto	Red LA
t Rdirective_cweb_k_epi	35	4	2	comment		89	120	120
t Rdirective_cweb_k_epi	35	2	2	cweb-comment		89	121	121
t Rdirective_cweb_k_epi	35	3	2	comment-overrun		89	122	122
⇒ <i>comment</i>						State: 120 state type: <i>r</i>		
← rule	→ R#	sr#	Po	←	subrule element	→ Brn	Gto	Red LA
t Rdirective_cweb_k_epi	35	4	3			89	0	120 2
⇒ <i>cweb-comment</i>						State: 121 state type: <i>r</i>		
← rule	→ R#	sr#	Po	←	subrule element	→ Brn	Gto	Red LA
t Rdirective_cweb_k_epi	35	2	3			89	0	121 2

\Rightarrow <i>comment-overrun</i>		State: 122 state type: ^r	
← rule →	R# sr# Po ←	subrule element	→ Brn Gto Red LA
t Rdirective_cweb_k_epi	35 3 3		89 0 122 2
\Rightarrow <i>Rdirective_cweb_k_epi</i>		State: 123 state type: ^s	
← rule →	R# sr# Po ←	subrule element	→ Brn Gto Red LA
c Rlint_epi	34 1 1	lint NS_lint_balls::TH_lint_balls	123 24 25
c Rlint_epi	34 2 1	.	123 26 26
t Rmust_directive_phrase	25 1 2	Rlint_epi <u>Rmust_directive</u>	89 124 127
\Rightarrow <i>Rlint_epi</i>		State: 124 state type: ^s	
← rule →	R# sr# Po ←	subrule element	→ Brn Gto Red LA
c Rmust_directive	26 3 1	?	124 144 144
c Rmust_directive	26 2 1	? NULL	124 145 146
c Rmust_directive	26 1 1	# op NS_identifier::TH_identifier	124 145 147
t Rmust_directive_phrase	25 1 3	Rmust_directive <u>Rsyntax_code</u>	89 125 127
\Rightarrow <i>Rmust_directive</i>		State: 125 state type: ^s	
← rule →	R# sr# Po ←	subrule element	→ Brn Gto Red LA
c Rsyntax_code	33 1 1	syntax-code NS_o2_sdc::TH_o2_sdc	125 148 150
c Rsyntax_code	33 2 1	? NULL	125 148 149
t Rmust_directive_phrase	25 1 4	Rsyntax_code <u>Rlint_epi</u>	89 126 127
\Rightarrow <i>Rsyntax_code</i>		State: 126 state type: ^s	
← rule →	R# sr# Po ←	subrule element	→ Brn Gto Red LA
c Rlint_epi	34 1 1	lint NS_lint_balls::TH_lint_balls	126 24 25
c Rlint_epi	34 2 1	.	126 26 26
t Rmust_directive_phrase	25 1 5	Rlint_epi	89 127 127
\Rightarrow <i>Rlint_epi</i>		State: 127 state type: ^r	
← rule →	R# sr# Po ←	subrule element	→ Brn Gto Red LA
t Rmust_directive_phrase	25 1 6		89 0 127 8
\Rightarrow <i> arbitration-code: ε</i>		State: 128 state type: ^s	
← rule →	R# sr# Po ←	subrule element	→ Brn Gto Red LA
t Rdirective	32 2 2	?	90 129 129
t Rdirective_cweb_k_epi	35 4 2	comment	90 120 120
t Rdirective	32 1 2	# op	90 130 130
t Rdirective_cweb_k_epi	35 2 2	cweb-comment	90 121 121
t Rdirective_cweb_k_epi	35 3 2	comment-overrun	90 122 122
\Rightarrow <i> ? </i>		State: 129 state type: ^r	
← rule →	R# sr# Po ←	subrule element	→ Brn Gto Red LA
t Rdirective	32 2 3		90 0 129 9
\Rightarrow <i>#op</i>		State: 130 state type: ^r	
← rule →	R# sr# Po ←	subrule element	→ Brn Gto Red LA
t Rdirective	32 1 3		90 0 130 9
\Rightarrow <i>Rmaybe_directive_phrases</i>		State: 131 state type: ^{s/r²}	
← rule →	R# sr# Po ←	subrule element	→ Brn Gto Red LA

c	Rdirective_cweb_k_epi	35	1	1	ε				131	0	131	2
t	Rmaybe_more_directives	28	2	2					90	0	131	6
c	Rdirective	32	1	1	# op NS.identifier::TH.identifier				131	128	130	
c	Rdirective_cweb_k_epi	35	2	1	cweb-comment NS_cweb_or_c.k::TH_cweb_or_c.k				131	128	121	
c	Rdirective	32	2	1	? NULL				131	128	129	
c	Rdirective_cweb_k_epi	35	3	1	comment-overrun NULL				131	128	122	
c	Rdirective_cweb_k_epi	35	4	1	comment NULL				131	128	120	
t	Rmaybe_directive_phrases	29	2	2	Rmaybe_directive_phrase				90	132	132	
c	Rmaybe_directive_phrase	30	2	1	Rdirective <u>Rsyntax_code</u>				131	133	135	
c	Rmaybe_directive_phrase	30	1	1	Rdirective_cweb_k_epi <u>Rlint_epi</u>				131	136	140	
⇒ <i>Rmaybe_directive_phrase</i> State: 132 state type: ^r												
←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
t	Rmaybe_directive_phrases		29	2	3				90	0	132	8
⇒ <i>Rdirective</i> State: 133 state type: ^s												
←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
c	Rsyntax_code		33	1	1	syntax-code NS_o2_sdc::TH_o2_sdc			133	148	150	
c	Rsyntax_code		33	2	1	? NULL			133	148	149	
t	Rmaybe_directive_phrase		30	2	2	Rsyntax_code <u>Rlint_epi</u>			131	134	135	
⇒ <i>Rsyntax_code</i> State: 134 state type: ^s												
←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
c	Rlint_epi		34	1	1	lint NS_lint_balls::TH_lint_balls			134	24	25	
c	Rlint_epi		34	2	1	.			134	26	26	
t	Rmaybe_directive_phrase		30	2	3	Rlint_epi			131	135	135	
⇒ <i>Rlint_epi</i> State: 135 state type: ^r												
←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
t	Rmaybe_directive_phrase		30	2	4				131	0	135	8
⇒ <i>Rdirective_cweb_k_epi</i> State: 136 state type: ^s												
←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
c	Rlint_epi		34	1	1	lint NS_lint_balls::TH_lint_balls			136	24	25	
c	Rlint_epi		34	2	1	.			136	26	26	
t	Rmaybe_directive_phrase		30	1	2	Rlint_epi <u>Rdirective</u>			131	137	140	
⇒ <i>Rlint_epi</i> State: 137 state type: ^s												
←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
c	Rdirective		32	1	1	# op NS.identifier::TH.identifier			137	151	130	
c	Rdirective		32	2	1	? NULL			137	151	129	
t	Rmaybe_directive_phrase		30	1	3	Rdirective <u>Rsyntax_code</u>			131	138	140	
⇒ <i>Rdirective</i> State: 138 state type: ^s												
←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
c	Rsyntax_code		33	1	1	syntax-code NS_o2_sdc::TH_o2_sdc			138	148	150	
c	Rsyntax_code		33	2	1	? NULL			138	148	149	
t	Rmaybe_directive_phrase		30	1	4	Rsyntax_code <u>Rlint_epi</u>			131	139	140	
⇒ <i>Rsyntax_code</i> State: 139 state type: ^s												
←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
c	Rlint_epi		34	1	1	lint NS_lint_balls::TH_lint_balls			139	24	25	

c Rlint_epi	34	2	1	.		139	26	26
t Rmaybe_directive_phrase	30	1	5	Rlint_epi		131	140	140
⇒ <i>Rlint_epi</i>						State: 140 state type: <i>r</i>		
← rule	→ R#	sr#	Po	←	subrule element	→ Brn	Gto	Red LA
t Rmaybe_directive_phrase	30	1	6			131	0	140 8
⇒ <i>Rmaybe_directive_phrase</i>						State: 141 state type: <i>r</i>		
← rule	→ R#	sr#	Po	←	subrule element	→ Brn	Gto	Red LA
t Rmaybe_directive_phrases	29	1	2			90	0	141 8
⇒ <i> ? </i>						State: 142 state type: <i>r</i>		
← rule	→ R#	sr#	Po	←	subrule element	→ Brn	Gto	Red LA
t Rclose_brace	27	1	2			91	0	142 2
⇒ <i>}</i>						State: 143 state type: <i>r</i>		
← rule	→ R#	sr#	Po	←	subrule element	→ Brn	Gto	Red LA
t Rclose_brace	27	2	2			91	0	143 2
⇒ <i> ? </i>						State: 144 state type: <i>r</i>		
← rule	→ R#	sr#	Po	←	subrule element	→ Brn	Gto	Red LA
t Rmust_directive	26	3	2			124	0	144 9
⇒ <i> arbitration-code: ε</i>						State: 145 state type: <i>s</i>		
← rule	→ R#	sr#	Po	←	subrule element	→ Brn	Gto	Red LA
t Rmust_directive	26	2	2	?		124	146	146
t Rmust_directive	26	1	2	#op		124	147	147
⇒ <i> ? </i>						State: 146 state type: <i>r</i>		
← rule	→ R#	sr#	Po	←	subrule element	→ Brn	Gto	Red LA
t Rmust_directive	26	2	3			124	0	146 9
⇒ <i>#op</i>						State: 147 state type: <i>r</i>		
← rule	→ R#	sr#	Po	←	subrule element	→ Brn	Gto	Red LA
t Rmust_directive	26	1	3			124	0	147 9
⇒ <i> arbitration-code: ε</i>						State: 148 state type: <i>s</i>		
← rule	→ R#	sr#	Po	←	subrule element	→ Brn	Gto	Red LA
t Rsyntax_code	33	2	2	?		125	149	149
t Rsyntax_code	33	1	2	syntax-code		125	150	150
⇒ <i> ? </i>						State: 149 state type: <i>r</i>		
← rule	→ R#	sr#	Po	←	subrule element	→ Brn	Gto	Red LA
t Rsyntax_code	33	2	3			125	0	149 2
⇒ <i>syntax-code</i>						State: 150 state type: <i>r</i>		
← rule	→ R#	sr#	Po	←	subrule element	→ Brn	Gto	Red LA
t Rsyntax_code	33	1	3			125	0	150 2
⇒ <i> arbitration-code: ε</i>						State: 151 state type: <i>s</i>		
← rule	→ R#	sr#	Po	←	subrule element	→ Brn	Gto	Red LA
t Rdirective	32	2	2	?		137	129	129

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subrule_def Grammar §107

t Rdirective 32 1 2 # op

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subrule_def Grammar

Date: January 2, 2015 at 15:39

File: subrule_def.lex

Ns: NS_subrule_def

Version: 1.0

Debug: true

Grammar Comments:

Type: Thread

Parse a subrule: into the valley of sin...

562 element(s) in Lookahead Expression below

eolr - ||| - |.| - |t|

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