

**1. Copyright.**

Copyright © Dave Bone 1998 - 2015

**2. *fsm\_phrase\_th* Thread.**

Parse fsm phrase along with its directives.

Example of a fsm construct to parse:

```

/*
file: fsm.txt
Why: example of a fsm construct to parse.
*/
fsm
(fsm-id      "eol.lex",fsm-filename eol,fsm-namespace NS_eol
,fsm-class Ceol
,fsm-version "1.0",fsm-date "17 Juin 2003",fsm-debug "false"
,fsm-comments "end-of-line recognizer")

```

**3. Fsm C*fsm\_phrase\_th* class.****4. C*fsm\_phrase\_th* constructor directive.**

⟨C*fsm\_phrase\_th* constructor directive 4⟩ ≡  
*fsm\_phrase\_* = 0;

**5. C*fsm\_phrase\_th* op directive.**

⟨C*fsm\_phrase\_th* op directive 5⟩ ≡  
 if (*fsm\_phrase\_* ≠ 0) {  
   delete *fsm\_phrase\_*;  
   *fsm\_phrase\_* = 0;  
 }  
*fsm\_phrase\_* = new T\_*fsm\_phrase*;  
*fsm\_phrase\_*→set\_rc(\*parser\_→start\_token\_, \_\_FILE\_\_, \_\_LINE\_\_);  
 AST \*t = new AST(\**fsm\_phrase\_*);  
*fsm\_phrase\_*→phrase\_tree(t);  
 if (CWEB\_MARKER ≠ 0) {  
   *fsm\_phrase\_*→add\_cweb\_marker(CWEB\_MARKER);  
   CWEB\_MARKER = 0;  
 }

**6. C*fsm\_phrase\_th* user-declaration directive.**

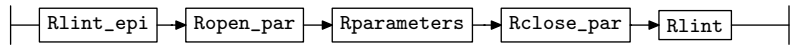
⟨C*fsm\_phrase\_th* user-declaration directive 6⟩ ≡  
**public:** T\_*fsm\_phrase* \**fsm\_phrase\_*;

**7. C*fsm\_phrase\_th* user-prefix-declaration directive.**

⟨C*fsm\_phrase\_th* user-prefix-declaration directive 7⟩ ≡  
**#include** "lint\_balls.h"  
**#include** "identifier.h"  
**#include** "c\_string.h"  
**#include** "fsm\_class\_phrase\_th.h"  
**#include** "o2\_externs.h"

**8. Rfsm\_phrase rule.**

Rfsm\_phrase



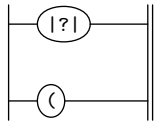
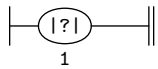
⟨ Rfsm\_phrase subrule 1 op directive 8 ⟩ ≡

```

Cfsm_phrase.th * fsm = ( Cfsm_phrase.th * ) rule_info_.parser_--fsm_tbl_;
RSVP(fsm->fsm_phrase_);
fsm->fsm_phrase_ = 0;
  
```

**9. Ropen\_par rule.**

Ropen\_par

**10. Ropen\_par's subrule 1.**

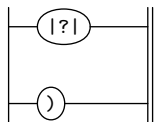
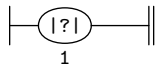
⟨ Ropen\_par subrule 1 op directive 10 ⟩ ≡

```

CAbs_lr1_sym * sym = new Err_no_open_parenthesis;
sym->set_rc(*rule_info_.parser_--current_token(), __FILE__, __LINE__);
RSVP(sym);
rule_info_.parser_--set_stop_parse(true);
  
```

**11. Rclose\_par rule.**

Rclose\_par

**12. Rclose\_par's subrule 1.**

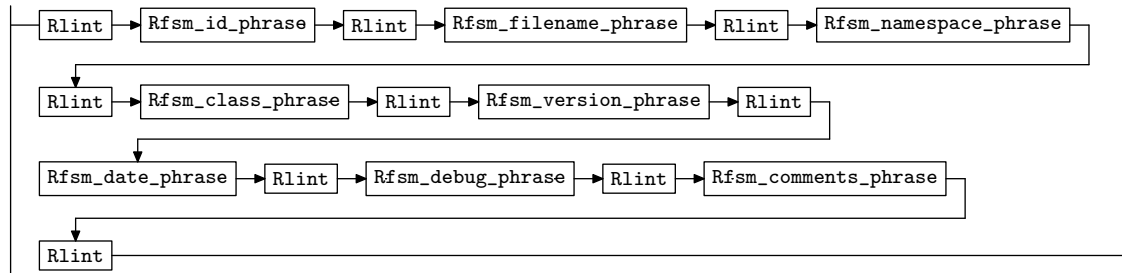
⟨ Rclose\_par subrule 1 op directive 12 ⟩ ≡

```

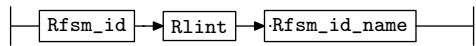
CAbs_lr1_sym * sym = new Err_no_close_parenthesis;
sym->set_rc(*rule_info_.parser_--current_token(), __FILE__, __LINE__);
RSVP(sym);
rule_info_.parser_--set_stop_parse(true);
  
```

13. *Rparameters* rule.

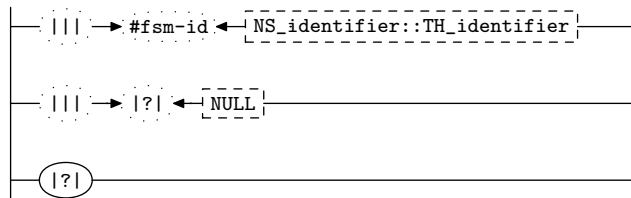
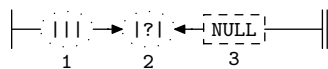
Rparameters

14. *Rfsm\_id\_phrase* rule.

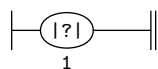
Rfsm\_id\_phrase

15. *Rfsm\_id* rule.

Rfsm\_id

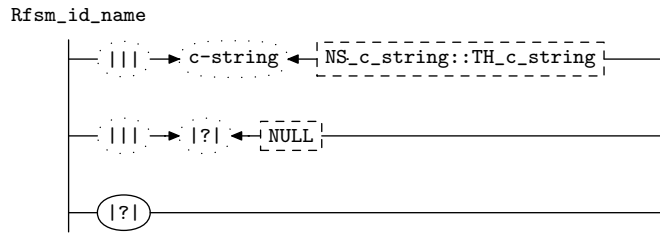
16. *Rfsm\_id*'s subrule 2.

$\langle \text{Rfsm\_id subrule 2 op directive 16} \rangle \equiv$   
`sf-p2--set_auto_delete(true);`  
`CAbs_lr1_sym * sym = new Err_no_fsm_id_present;`  
`sym->set_rc(*sf-p2--, __FILE__, __LINE__);`  
`RSVP(sym);`  
`rule_info--parser--set_stop_parse(true);`

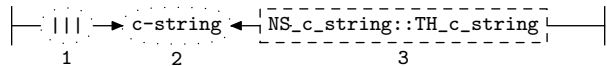
17. *Rfsm\_id*'s subrule 3.

$\langle \text{Rfsm\_id subrule 3 op directive 17} \rangle \equiv$   
`CAbs_lr1_sym * sym = new Err_no_fsm_id_present;`  
`sym->set_rc(*rule_info--parser--current_token(), __FILE__, __LINE__);`  
`RSVP(sym);`  
`rule_info--parser--set_stop_parse(true);`

**18. Rfsm\_id\_name rule.**

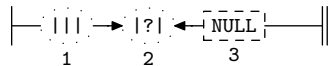


**19. Rfsm\_id\_name's subrule 1.**



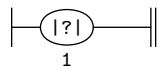
⟨ Rfsm\_id\_name subrule 1 op directive 19 ⟩ ≡  
*Cfsm\_phrase.th* \* fsm = ( *Cfsm\_phrase.th* \* ) rule\_info\_\_parser\_\_fsm\_tbl\_\_;  
 fsm-fsm\_phrase\_\_fsm\_id(sf-p2\_\_);

**20. Rfsm\_id\_name's subrule 2.**



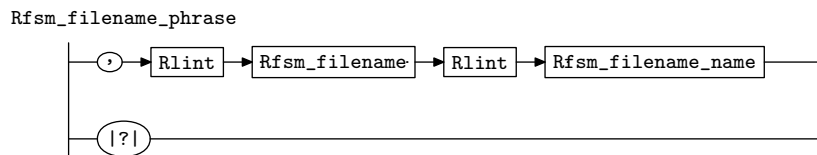
⟨ Rfsm\_id\_name subrule 2 op directive 20 ⟩ ≡  
 RSVP(sf-p2\_\_);  
 rule\_info\_\_parser\_\_set\_stop\_parse(true);

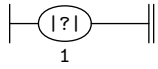
**21. Rfsm\_id\_name's subrule 3.**



⟨ Rfsm\_id\_name subrule 3 op directive 21 ⟩ ≡  
*CAbs\_lr1\_sym* \* sym = new *Err\_no\_fsm\_id\_string*;  
 sym-set\_rc(\*rule\_info\_\_parser\_\_current\_token(), \_\_FILE\_\_, \_\_LINE\_\_);  
 RSVP(sym);  
 rule\_info\_\_parser\_\_set\_stop\_parse(true);

**22. Rfsm\_filename\_phrase rule.**

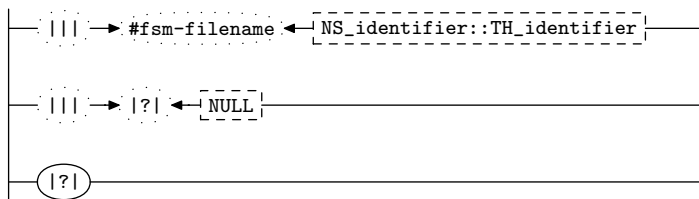
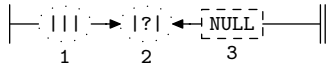


**23. *Rfsm\_filename\_phrase's* subrule 2.**

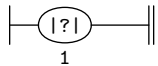
$\langle \text{Rfsm\_filename\_phrase subrule 2 op directive 23} \rangle \equiv$   
`CAbs_lr1_sym * sym = new Err_no_comma_present;`  
`sym->set_rc(*rule_info->parser->start_token--, __FILE__, __LINE__);`  
`RSVP(sym);`  
`rule_info->parser->set_stop_parse(true);`

**24. *Rfsm\_filename* rule.**

Rfsm\_filename

**25. *Rfsm\_filename's* subrule 2.**

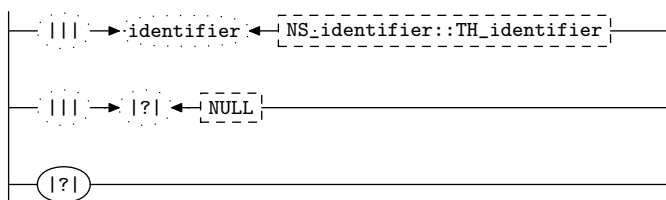
$\langle \text{Rfsm\_filename subrule 2 op directive 25} \rangle \equiv$   
`sf-p2->set_auto_delete(true);`  
`CAbs_lr1_sym * sym = new Err_no_fsm_filename_present;`  
`sym->set_rc(*sf-p2--, __FILE__, __LINE__);`  
`RSVP(sym);`  
`rule_info->parser->set_stop_parse(true);`

**26. *Rfsm\_filename's* subrule 3.**

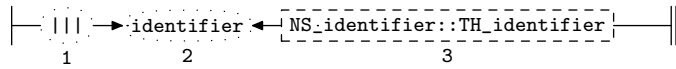
$\langle \text{Rfsm\_filename subrule 3 op directive 26} \rangle \equiv$   
`CAbs_lr1_sym * sym = new Err_no_fsm_filename_present;`  
`sym->set_rc(*rule_info->parser->current_token(), __FILE__, __LINE__);`  
`RSVP(sym);`  
`rule_info->parser->set_stop_parse(true);`

**27. *Rfsm\_filename\_name* rule.**

Rfsm\_filename\_name



**28. Rfsm\_filename\_name's subrule 1.**

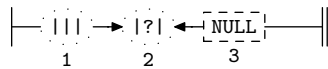


Determine if file name properly formed as the filename without the extension is used in generating the emitted files and the header guard signal.

```

<Rfsm_filename_name subrule 1 op directive 28> ≡
  Cfsm_phrase.th * fsm = ( Cfsm_phrase.th * ) rule_info_.parser_--fsm_tbl_;
  fsm-fsm_phrase_--filename_id(sf-p2_--);
  
```

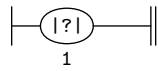
**29. Rfsm\_filename\_name's subrule 2.**



```

<Rfsm_filename_name subrule 2 op directive 29> ≡
  sf-p2_--set_auto_delete(true);
  CAbs_lr1_sym * sym = new Err_no_fsm_filename_id_present;
  sym-set_rc(*sf-p2_--, __FILE__, __LINE__);
  RSVP(sym);
  rule_info_.parser_--set_stop_parse(true);
  
```

**30. Rfsm\_filename\_name's subrule 3.**

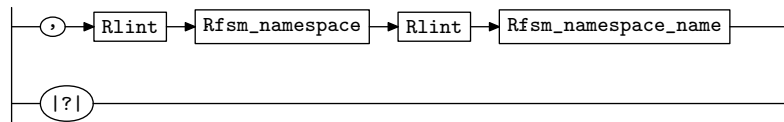


```

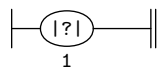
<Rfsm_filename_name subrule 3 op directive 30> ≡
  CAbs_lr1_sym * sym = new Err_no_fsm_filename_id_present;
  sym-set_rc(*rule_info_.parser_--current_token(), __FILE__, __LINE__);
  RSVP(sym);
  rule_info_.parser_--set_stop_parse(true);
  
```

**31. Rfsm\_namespace\_phrase rule.**

Rfsm\_namespace\_phrase

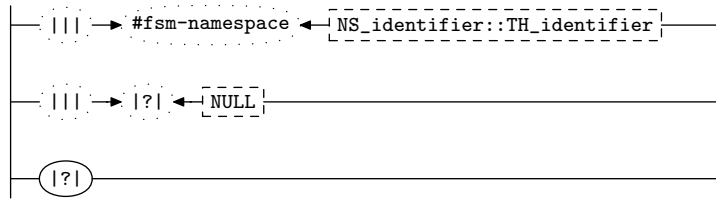
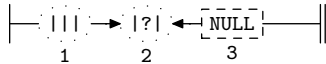


**32. Rfsm\_namespace\_phrase's subrule 2.**

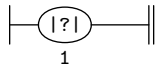


```

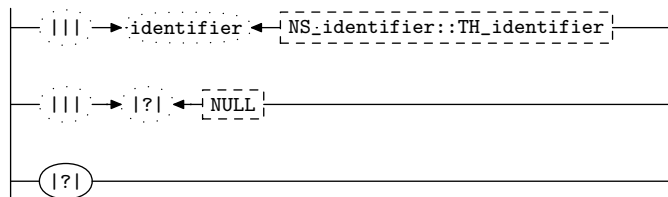
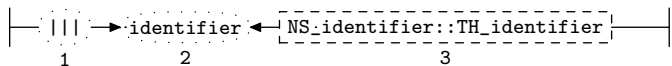
<Rfsm_namespace_phrase subrule 2 op directive 32> ≡
  CAbs_lr1_sym * sym = new Err_no_comma_present;
  sym-set_rc(*rule_info_.parser_--current_token(), __FILE__, __LINE__);
  RSVP(sym);
  rule_info_.parser_--set_stop_parse(true);
  
```

**33. *Rfsm\_namespace* rule.***Rfsm\_namespace***34. *Rfsm\_namespace*'s subrule 2.**

⟨*Rfsm\_namespace* subrule 2 op directive 34⟩ ≡  
*sf-p2--set\_auto\_delete(true)*;  
*CAbs\_lr1\_sym \* sym = new Err\_no\_fsm\_namespace\_present*;  
*sym-set\_rc(\*sf-p2--, \_\_FILE\_\_, \_\_LINE\_\_)*;  
*RSVP(sym)*;  
*rule\_info...parser--set\_stop\_parse(true)*;

**35. *Rfsm\_namespace*'s subrule 3.**

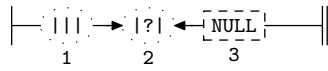
⟨*Rfsm\_namespace* subrule 3 op directive 35⟩ ≡  
*CAbs\_lr1\_sym \* sym = new Err\_no\_fsm\_namespace\_present*;  
*sym-set\_rc(\*rule\_info...parser--current\_token(), \_\_FILE\_\_, \_\_LINE\_\_)*;  
*RSVP(sym)*;  
*rule\_info...parser--set\_stop\_parse(true)*;

**36. *Rfsm\_namespace\_name* rule.***Rfsm\_namespace\_name***37. *Rfsm\_namespace\_name*'s subrule 1.**

⟨*Rfsm\_namespace\_name* subrule 1 op directive 37⟩ ≡  
*Cfsm\_phrase.th \* fsm = ( Cfsm\_phrase.th \* ) rule\_info...parser--fsm.tbl\_;*  
*fsm-fsm\_phrase--namespace\_id(sf-p2\_)*;



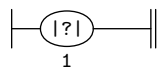
**38. Rfsm\_namespace\_name's subrule 2.**



```

<Rfsm_namespace_name subrule 2 op directive 38> ≡
  sf→p2--set_auto_delete(true);
  CAbs_lr1_sym * sym = new Err_no_fsm_namespace_id_present;
  sym→set_rc(*sf→p2--, __FILE__, __LINE__);
  RSVP(sym);
  rule_info→parser→set_stop_parse(true);
  
```

**39. Rfsm\_namespace\_name's subrule 3.**

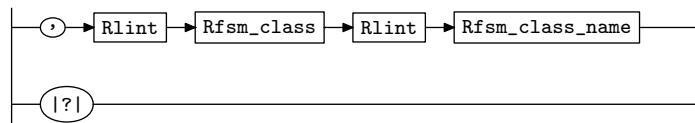


```

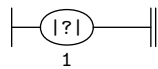
<Rfsm_namespace_name subrule 3 op directive 39> ≡
  CAbs_lr1_sym * sym = new Err_no_fsm_namespace_id_present;
  sym→set_rc(*rule_info→parser→current_token(), __FILE__, __LINE__);
  RSVP(sym);
  rule_info→parser→set_stop_parse(true);
  
```

**40. Rfsm\_class\_phrase rule.**

Rfsm\_class\_phrase



**41. Rfsm\_class\_phrase's subrule 2.**

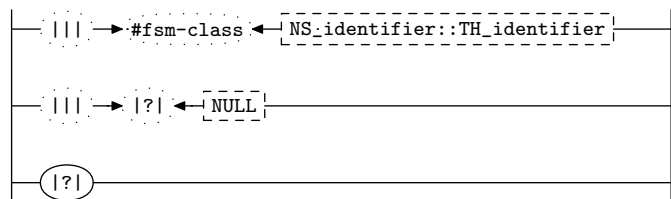


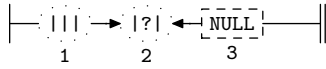
```

<Rfsm_class_phrase subrule 2 op directive 41> ≡
  CAbs_lr1_sym * sym = new Err_no_comma_present;
  sym→set_rc(*rule_info→parser→current_token(), __FILE__, __LINE__);
  RSVP(sym);
  rule_info→parser→set_stop_parse(true);
  
```

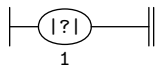
**42. Rfsm\_class rule.**

Rfsm\_class



**43. *Rfsm\_class*'s subrule 2.**

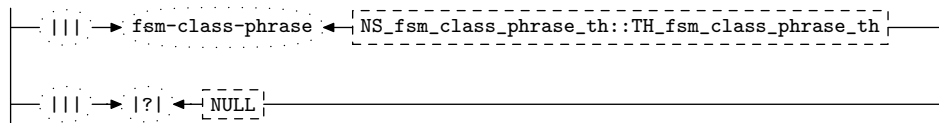
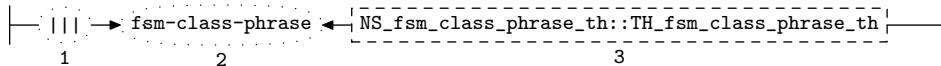
⟨ *Rfsm\_class* subrule 2 op directive 43 ⟩ ≡  
`sf-p2--set_auto_delete(true);`  
`CAbs_lr1_sym * sym = new Err_no_fsm_class_present;`  
`sym-set_rc(*sf-p2--, __FILE__, __LINE__);`  
`RSVP(sym);`  
`rule_info...parser--set_stop_parse(true);`

**44. *Rfsm\_class*'s subrule 3.**

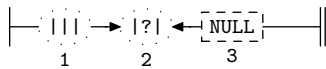
⟨ *Rfsm\_class* subrule 3 op directive 44 ⟩ ≡  
`CAbs_lr1_sym * sym = new Err_no_fsm_class_present;`  
`sym-set_rc(*rule_info...parser--current_token(), __FILE__, __LINE__);`  
`RSVP(sym);`  
`rule_info...parser--set_stop_parse(true);`

**45. *Rfsm\_class\_name* rule.**

*Rfsm\_class\_name*

**46. *Rfsm\_class\_name*'s subrule 1.**

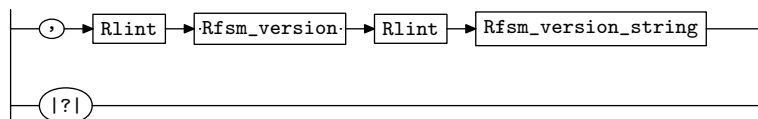
⟨ *Rfsm\_class\_name* subrule 1 op directive 46 ⟩ ≡  
`Cfsm_phrase_th * fsm = ( Cfsm_phrase_th * ) rule_info...parser--fsm_tbl_;`  
`fsm-fsm_phrase_-fsm_class_phrase(sf-p2_);`

**47. *Rfsm\_class\_name*'s subrule 2.**

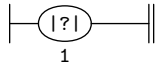
⟨ *Rfsm\_class\_name* subrule 2 op directive 47 ⟩ ≡  
`RSVP(sf-p2_);`  
`rule_info...parser--set_stop_parse(true);`

**48. *Rfsm\_version\_phrase* rule.**

*Rfsm\_version\_phrase*



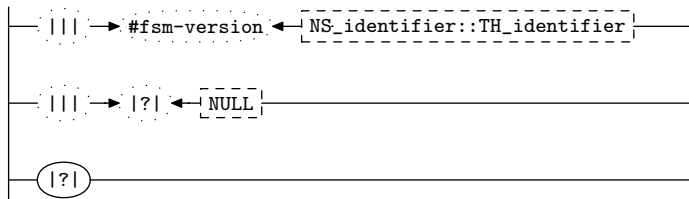
49. *Rfsm\_version\_phrase*'s subrule 2.



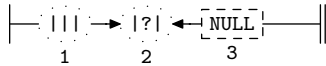
$\langle$  Rfsm\_version\_phrase subrule 2 op directive 49  $\rangle \equiv$   
`CAbs_lr1_sym * sym = new Err_no_comma_present;`  
`sym->set_rc(*rule_info_.parser->current_token(), __FILE__, __LINE__);`  
`RSVP(sym);`  
`rule_info_.parser->set_stop_parse(true);`

50. *Rfsm\_version* rule.

Rfsm\_version

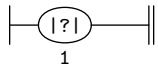


51. *Rfsm\_version*'s subrule 2.



$\langle$  Rfsm\_version subrule 2 op directive 51  $\rangle \equiv$   
`sf-p2->set_auto_delete(true);`  
`CAbs_lr1_sym * sym = new Err_no_fsm_version_present;`  
`sym->set_rc(*sf-p2_, __FILE__, __LINE__);`  
`RSVP(sym);`  
`rule_info_.parser->set_stop_parse(true);`

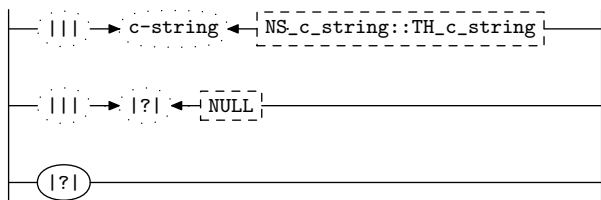
52. *Rfsm\_version*'s subrule 3.

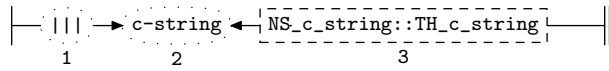


$\langle$  Rfsm\_version subrule 3 op directive 52  $\rangle \equiv$   
`CAbs_lr1_sym * sym = new Err_no_fsm_version_present;`  
`sym->set_rc(*rule_info_.parser->current_token(), __FILE__, __LINE__);`  
`RSVP(sym);`  
`rule_info_.parser->set_stop_parse(true);`

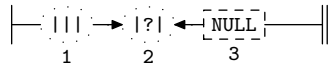
53. *Rfsm\_version\_string* rule.

Rfsm\_version\_string

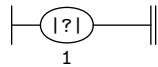


**54.** *Rfsm\_version\_string*'s subrule 1.

⟨ *Rfsm\_version\_string* subrule 1 op directive 54 ⟩ ≡  
`Cfsm_phrase.th * fsm = ( Cfsm_phrase.th * ) rule_info_.parser_--fsm_tbl_;`  
`fsm-fsm_phrase_-version(sf-p2_);`

**55.** *Rfsm\_version\_string*'s subrule 2.

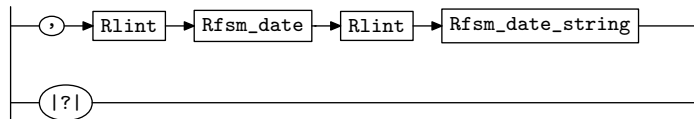
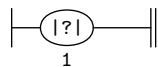
⟨ *Rfsm\_version\_string* subrule 2 op directive 55 ⟩ ≡  
`RSVP(sf-p2_);`  
`rule_info_.parser_--set_stop_parse(true);`

**56.** *Rfsm\_version\_string*'s subrule 3.

⟨ *Rfsm\_version\_string* subrule 3 op directive 56 ⟩ ≡  
`CAbs_lr1_sym * sym = new Err_no_fsm_version_string;`  
`sym-set_rc(*rule_info_.parser_--current_token(), __FILE__, __LINE__);`  
`RSVP(sym);`  
`rule_info_.parser_--set_stop_parse(true);`

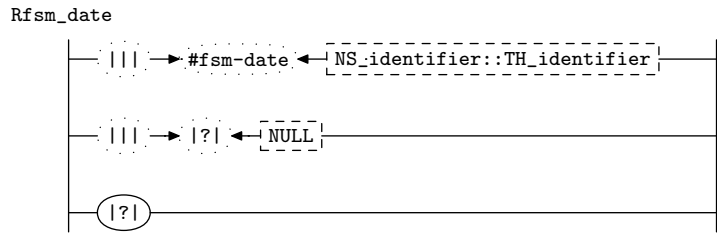
**57.** *Rfsm\_date\_phrase* rule.

*Rfsm\_date\_phrase*

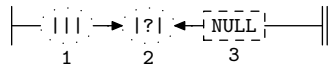
**58.** *Rfsm\_date\_phrase*'s subrule 2.

⟨ *Rfsm\_date\_phrase* subrule 2 op directive 58 ⟩ ≡  
`CAbs_lr1_sym * sym = new Err_no_comma_present;`  
`sym-set_rc(*rule_info_.parser_--current_token(), __FILE__, __LINE__);`  
`RSVP(sym);`  
`rule_info_.parser_--set_stop_parse(true);`

**59. Rfsm\_date rule.**



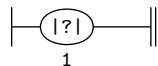
**60. Rfsm\_date's subrule 2.**



```

⟨ Rfsm_date subrule 2 op directive 60 ⟩ ≡
  sf-p2--set_auto_delete(true);
  CAbs_lr1_sym * sym = new Err_no_fsm_date_present;
  sym->set_rc(*sf-p2--, __FILE__, __LINE__);
  RSVP(sym);
  rule_info...parser--set_stop_parse(true);
  
```

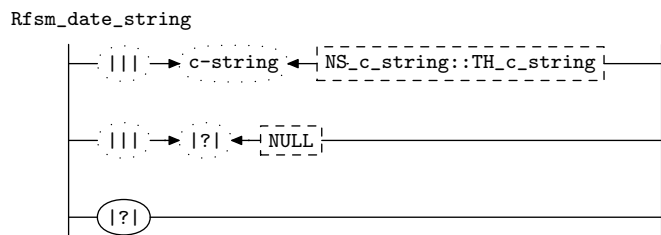
**61. Rfsm\_date's subrule 3.**



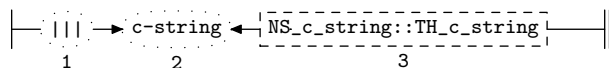
```

⟨ Rfsm_date subrule 3 op directive 61 ⟩ ≡
  CAbs_lr1_sym * sym = new Err_no_fsm_date_present;
  sym->set_rc(*rule_info...parser--current_token(), __FILE__, __LINE__);
  RSVP(sym);
  rule_info...parser--set_stop_parse(true);
  
```

**62. Rfsm\_date\_string rule.**

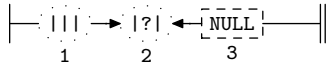


**63. Rfsm\_date\_string's subrule 1.**

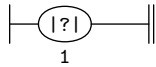


```

⟨ Rfsm_date_string subrule 1 op directive 63 ⟩ ≡
  Cfsm_phrase.th * fsm = ( Cfsm_phrase.th * ) rule_info...parser--fsm.tbl_;
  fsm->fsm_phrase->date(sf-p2--);
  
```

**64.** *Rfsm\_date\_string*'s subrule 2.

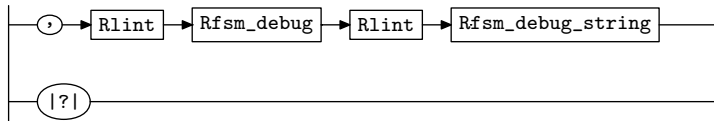
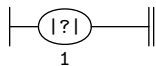
⟨ *Rfsm\_date\_string* subrule 2 op directive 64 ⟩ ≡  
 RSVP(*sf-p2*);  
*rule\_info*...*parser*--*set\_stop\_parse*(*true*);

**65.** *Rfsm\_date\_string*'s subrule 3.

⟨ *Rfsm\_date\_string* subrule 3 op directive 65 ⟩ ≡  
*CAbs\_lr1\_sym* \* *sym* = **new** *Err\_no\_fsm\_date\_string*;  
*sym*--*set\_rc*(\**rule\_info*...*parser*--*current\_token*(), \_\_FILE\_\_, \_\_LINE\_\_);  
 RSVP(*sym*);  
*rule\_info*...*parser*--*set\_stop\_parse*(*true*);

**66.** *Rfsm\_debug\_phrase* rule.

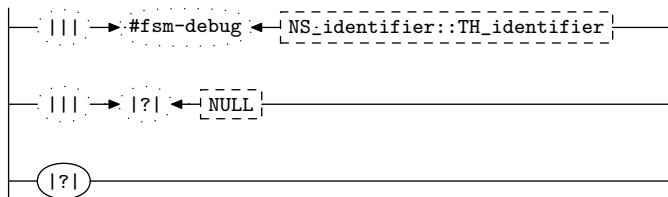
*Rfsm\_debug\_phrase*

**67.** *Rfsm\_debug\_phrase*'s subrule 2.

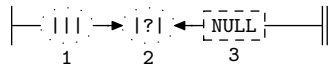
⟨ *Rfsm\_debug\_phrase* subrule 2 op directive 67 ⟩ ≡  
*CAbs\_lr1\_sym* \* *sym* = **new** *Err\_no\_comma\_present*;  
*sym*--*set\_rc*(\**rule\_info*...*parser*--*current\_token*(), \_\_FILE\_\_, \_\_LINE\_\_);  
 RSVP(*sym*);  
*rule\_info*...*parser*--*set\_stop\_parse*(*true*);

**68.** *Rfsm\_debug* rule.

*Rfsm\_debug*



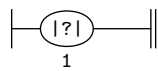
**69.** *Rfsm\_debug*'s subrule 2.



```

<Rfsm_debug subrule 2 op directive 69> ≡
  sf→p2--set_auto_delete(true);
  CAbs_lr1_sym * sym = new Err_no_fsm_debug_present;
  sym→set_rc(*sf→p2--, __FILE__, __LINE__);
  RSVP(sym);
  rule_info→parser→set_stop_parse(true);
  
```

**70.** *Rfsm\_debug*'s subrule 3.

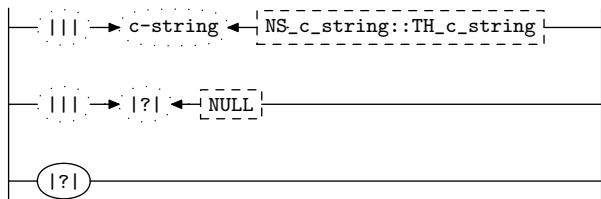


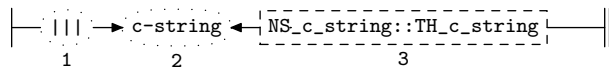
```

<Rfsm_debug subrule 3 op directive 70> ≡
  CAbs_lr1_sym * sym = new Err_no_fsm_debug_present;
  sym→set_rc(*rule_info→parser→current_token(), __FILE__, __LINE__);
  RSVP(sym);
  rule_info→parser→set_stop_parse(true);
  
```

**71.** *Rfsm\_debug\_string* rule.

Rfsm\_debug\_string

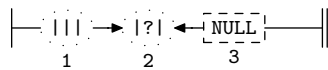


**72.** *Rfsm\_debug\_string*'s subrule 1.

```

⟨Rfsm_debug_string subrule 1 op directive 72⟩ ≡
  Cfsm_phrase.th * fsm = ( Cfsm_phrase.th * ) rule_info_.parser_--fsm_tbl_;
  std::stringx(sf-p2--c_string()-c_str());
  std::stringt("true");
  if (x ≡ t) {
    fsm-fsm_phrase_-debug(sf-p2--);
    return;
  }
  std::stringf("false");
  if (x ≡ f) {
    fsm-fsm_phrase_-debug(sf-p2--);
    return;
  }
  CAbs_lr1_sym * sym = new Err_fsm_debug_string_not_true_or_false;
  sym->set_rc(*sf-p2--, __FILE__, __LINE__);
  RSVP(sym);
  rule_info_.parser_--set_stop_parse(true);

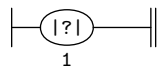
```

**73.** *Rfsm\_debug\_string*'s subrule 2.

```

⟨Rfsm_debug_string subrule 2 op directive 73⟩ ≡
  RSVP(sf-p2--);
  rule_info_.parser_--set_stop_parse(true);

```

**74.** *Rfsm\_debug\_string*'s subrule 3.

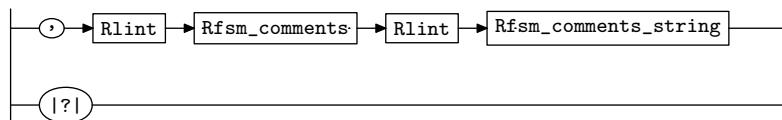
```

⟨Rfsm_debug_string subrule 3 op directive 74⟩ ≡
  CAbs_lr1_sym * sym = new Err_no_fsm_debug_string;
  sym->set_rc(*rule_info_.parser_--current_token(), __FILE__, __LINE__);
  RSVP(sym);
  rule_info_.parser_--set_stop_parse(true);

```

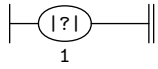
**75.** *Rfsm\_comments\_phrase* rule.

Rfsm\_comments\_phrase





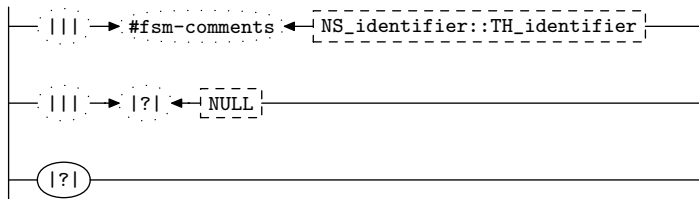
**76. Rfsm\_comments\_phrase's subrule 2.**



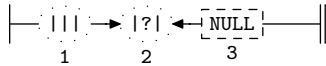
$\langle$  Rfsm\_comments\_phrase subrule 2 op directive 76  $\rangle \equiv$   
`CAbs_lr1_sym * sym = new Err_no_comma_present;`  
`sym->set_rc(*rule_info_.parser->current_token(), __FILE__, __LINE__);`  
`RSVP(sym);`  
`rule_info_.parser->set_stop_parse(true);`

**77. Rfsm\_comments rule.**

Rfsm\_comments

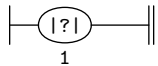


**78. Rfsm\_comments's subrule 2.**



$\langle$  Rfsm\_comments subrule 2 op directive 78  $\rangle \equiv$   
`sf-p2->set_auto_delete(true);`  
`CAbs_lr1_sym * sym = new Err_no_fsm_comments_present;`  
`sym->set_rc(*sf-p2_, __FILE__, __LINE__);`  
`RSVP(sym);`  
`rule_info_.parser->set_stop_parse(true);`

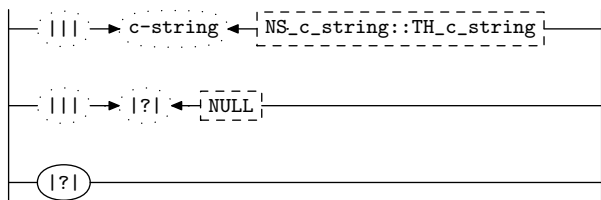
**79. Rfsm\_comments's subrule 3.**

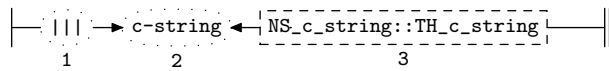


$\langle$  Rfsm\_comments subrule 3 op directive 79  $\rangle \equiv$   
`CAbs_lr1_sym * sym = new Err_no_fsm_comments_present;`  
`sym->set_rc(*rule_info_.parser->current_token(), __FILE__, __LINE__);`  
`RSVP(sym);`  
`rule_info_.parser->set_stop_parse(true);`

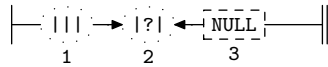
**80. Rfsm\_comments\_string rule.**

Rfsm\_comments\_string

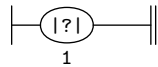


**81.** *Rfsm\_comments\_string*'s subrule 1.

$\langle \text{Rfsm\_comments\_string subrule 1 op directive 81} \rangle \equiv$   
`Cfsm_phrase_th * fsm = ( Cfsm_phrase_th * ) rule_info__parser__fsm_tbl__;`  
`fsm-fsm_phrase__comment(sf-p2__);`

**82.** *Rfsm\_comments\_string*'s subrule 2.

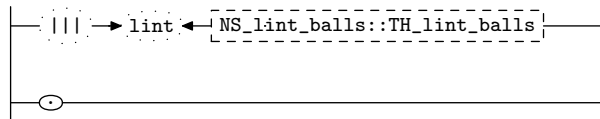
$\langle \text{Rfsm\_comments\_string subrule 2 op directive 82} \rangle \equiv$   
`RSVP(sf-p2__);`  
`rule_info__parser__set_stop_parse(true);`

**83.** *Rfsm\_comments\_string*'s subrule 3.

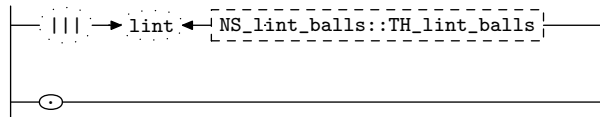
$\langle \text{Rfsm\_comments\_string subrule 3 op directive 83} \rangle \equiv$   
`CAbs_lr1_sym * sym = new Err_no_fsm_comments_string;`  
`sym->set_rc(*rule_info__parser__current_token(), __FILE__, __LINE__);`  
`RSVP(sym);`  
`rule_info__parser__set_stop_parse(true);`

**84.** *Rlint* rule.

Rlint

**85.** *Rlint\_epi* rule.

Rlint\_epi



**86. First Set Language for  $O_2^{linker}$ .**

```
/*
  File: fsm_phrase.th.fsc
  Date and Time: Fri Jan  2 15:33:37 2015
*/
transitive      y
grammar-name    "fsm_phrase.th"
name-space     "NS_fsm_phrase.th"
thread-name     "TH_fsm_phrase.th"
monolithic      n
file-name       "fsm_phrase.th.fsc"
no-of-T         569
list-of-native-first-set-terminals 2
  LR1_questionable_shift_operator
  raw_open_bracket
end-list-of-native-first-set-terminals
list-of-transitive-threads 1
  NS_lint_balls::TH_lint_balls
end-list-of-transitive-threads
list-of-used-threads 4
  NS_c_string::TH_c_string
  NS_fsm_class_phrase_th::TH_fsm_class_phrase_th
  NS_identifier::TH_identifier
  NS_lint_balls::TH_lint_balls
end-list-of-used-threads
fsm-comments
"Parse grammar's fsm phrase along with its directives."
```

## 87. Lr1 State Network.

$\Rightarrow$					State: 1 state type: $s/r$			
$\leftarrow$	rule	$\rightarrow$	R# sr# Po	$\leftarrow$	subrule element	$\rightarrow$	Brn Gto Red LA	
c	Rlint_epi		30 2 1	$\epsilon$			1 0 1 1	
c	Rlint_epi		30 1 1	lint NS_lint_balls::TH_lint_balls			1 2 3	
c	Rfsm_phrase		1 1 1	Rlint_epi <u>Ropen_par</u>			1 4 12	
$\Rightarrow$	arbitration-code: $\epsilon$				State: 2 state type: $s$			
$\leftarrow$	rule	$\rightarrow$	R# sr# Po	$\leftarrow$	subrule element	$\rightarrow$	Brn Gto Red LA	
t	Rlint_epi		30 1 2	lint			1 3 3	
$\Rightarrow$	lint				State: 3 state type: $r$			
$\leftarrow$	rule	$\rightarrow$	R# sr# Po	$\leftarrow$	subrule element	$\rightarrow$	Brn Gto Red LA	
t	Rlint_epi		30 1 3				1 0 3 1	
$\Rightarrow$	Rlint_epi				State: 4 state type: $s$			
$\leftarrow$	rule	$\rightarrow$	R# sr# Po	$\leftarrow$	subrule element	$\rightarrow$	Brn Gto Red LA	
c	Ropen_par		2 1 1	?			4 13 13	
c	Ropen_par		2 2 1	(			4 14 14	
t	Rfsm_phrase		1 1 2	Ropen_par <u>Rparameters</u>			1 5 12	
$\Rightarrow$	Ropen_par				State: 5 state type: $s/r$			
$\leftarrow$	rule	$\rightarrow$	R# sr# Po	$\leftarrow$	subrule element	$\rightarrow$	Brn Gto Red LA	
c	Rlint		29 2 1	$\epsilon$			5 0 5 2	
c	Rlint		29 1 1	lint NS_lint_balls::TH_lint_balls			5 10 11	
t	Rfsm_phrase		1 1 3	Rparameters <u>Rclose_par</u>			1 6 12	
c	Rparameters		4 1 1	Rlint <u>Rfsm_id_phrase</u>			5 15 41	
$\Rightarrow$	Rparameters				State: 6 state type: $s$			
$\leftarrow$	rule	$\rightarrow$	R# sr# Po	$\leftarrow$	subrule element	$\rightarrow$	Brn Gto Red LA	
c	Rclose_par		3 1 1	?			6 7 7	
c	Rclose_par		3 2 1	)			6 8 8	
t	Rfsm_phrase		1 1 4	Rclose_par <u>Rlint<math>^\epsilon</math></u>			1 9 12	
$\Rightarrow$	?				State: 7 state type: $r$			
$\leftarrow$	rule	$\rightarrow$	R# sr# Po	$\leftarrow$	subrule element	$\rightarrow$	Brn Gto Red LA	
t	Rclose_par		3 1 2				6 0 7 3	
$\Rightarrow$	)				State: 8 state type: $r$			
$\leftarrow$	rule	$\rightarrow$	R# sr# Po	$\leftarrow$	subrule element	$\rightarrow$	Brn Gto Red LA	
t	Rclose_par		3 2 2				6 0 8 3	
$\Rightarrow$	Rclose_par				State: 9 state type: $s/r$			
$\leftarrow$	rule	$\rightarrow$	R# sr# Po	$\leftarrow$	subrule element	$\rightarrow$	Brn Gto Red LA	
c	Rlint		29 2 1	$\epsilon$			9 0 9 3	
c	Rlint		29 1 1	lint NS_lint_balls::TH_lint_balls			9 10 11	
t	Rfsm_phrase		1 1 5	Rlint			1 12 12	
$\Rightarrow$	arbitration-code: $\epsilon$				State: 10 state type: $s$			
$\leftarrow$	rule	$\rightarrow$	R# sr# Po	$\leftarrow$	subrule element	$\rightarrow$	Brn Gto Red LA	
t	Rlint		29 1 2	lint			9 11 11	

$\Rightarrow$ <i>lint</i>					State: 11 state type: <i>r</i>					
← rule	→ R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
t Rlint	29	1	3				9	0	11	3
$\Rightarrow$ <i>Rlint</i>					State: 12 state type: <i>r</i>					
← rule	→ R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
t Rfsm_phrase	1	1	6				1	0	12	3
$\Rightarrow$ <i> ? </i>					State: 13 state type: <i>r</i>					
← rule	→ R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
t Ropen_par	2	1	2				4	0	13	2
$\Rightarrow$ <i>(</i>					State: 14 state type: <i>r</i>					
← rule	→ R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
t Ropen_par	2	2	2				4	0	14	2
$\Rightarrow$ <i>Rlint</i>					State: 15 state type: <i>s</i>					
← rule	→ R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
c Rfsm_id	6	3	1	?			15	42	42	
c Rfsm_id	6	2	1	?  NULL			15	43	44	
c Rfsm_id	6	1	1	# fsm-id NS_identifier::TH_identifier			15	43	45	
t Rparameters	4	1	2	Rfsm_id_phrase <u><i>Rlint</i><sup>ε</sup> <i>Rfsm_filename_phrase</i></u>			5	16	41	
c Rfsm_id_phrase	5	1	1	Rfsm_id <u><i>Rlint</i><sup>ε</sup> <i>Rfsm_id_name</i></u>			15	46	52	
$\Rightarrow$ <i>Rfsm_id_phrase</i>					State: 16 state type: <i>s/r</i>					
← rule	→ R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
c Rlint	29	2	1	ε			16	0	16	4
c Rlint	29	1	1	lint NS_lint_balls::TH_lint_balls			16	10	11	
t Rparameters	4	1	3	Rlint <u><i>Rfsm_filename_phrase</i></u>			5	17	41	
$\Rightarrow$ <i>Rlint</i>					State: 17 state type: <i>s</i>					
← rule	→ R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
c Rfsm_filename_phrase	8	2	1	?			17	53	53	
c Rfsm_filename_phrase	8	1	1	,			17	54	62	
t Rparameters	4	1	4	Rfsm_filename_phrase <u><i>Rlint</i><sup>ε</sup> <i>Rfsm_namespace_phrase</i></u>			5	18	41	
$\Rightarrow$ <i>Rfsm_filename_phrase</i>					State: 18 state type: <i>s/r</i>					
← rule	→ R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
c Rlint	29	2	1	ε			18	0	18	4
c Rlint	29	1	1	lint NS_lint_balls::TH_lint_balls			18	10	11	
t Rparameters	4	1	5	Rlint <u><i>Rfsm_namespace_phrase</i></u>			5	19	41	
$\Rightarrow$ <i>Rlint</i>					State: 19 state type: <i>s</i>					
← rule	→ R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
c Rfsm_namespace_phrase	11	2	1	?			19	63	63	
c Rfsm_namespace_phrase	11	1	1	,			19	64	72	
t Rparameters	4	1	6	Rfsm_namespace_phrase <u><i>Rlint</i><sup>ε</sup> <i>Rfsm_class_phrase</i></u>			5	20	41	
$\Rightarrow$ <i>Rfsm_namespace_phrase</i>					State: 20 state type: <i>s/r</i>					
← rule	→ R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
c Rlint	29	2	1	ε			20	0	20	4

c Rlint	29	1	1	lint NS lint_balls::TH lint_balls	20	10	11
t Rparameters	4	1	7	Rlint <u>Rfsm_class_phrase</u>	5	21	41
$\Rightarrow$ Rlint				State: 21 state type: $s$			
← rule	→ R#	sr#	Po	← subrule element	→ Brn	Gto	Red LA
c Rfsm_class_phrase	14	2	1	?	21	73	73
c Rfsm_class_phrase	14	1	1	,	21	74	81
t Rparameters	4	1	8	Rfsm_class_phrase <u>Rlint<math>^{\epsilon}</math> Rfsm_version_phrase</u>	5	22	41
$\Rightarrow$ Rfsm_class_phrase				State: 22 state type: $s/r$			
← rule	→ R#	sr#	Po	← subrule element	→ Brn	Gto	Red LA
c Rlint	29	2	1	$\epsilon$	22	0	22 4
c Rlint	29	1	1	lint NS lint_balls::TH lint_balls	22	10	11
t Rparameters	4	1	9	Rlint <u>Rfsm_version_phrase</u>	5	23	41
$\Rightarrow$ Rlint				State: 23 state type: $s$			
← rule	→ R#	sr#	Po	← subrule element	→ Brn	Gto	Red LA
c Rfsm_version_phrase	17	2	1	?	23	82	82
c Rfsm_version_phrase	17	1	1	,	23	83	91
t Rparameters	4	1	10	Rfsm_version_phrase <u>Rlint<math>^{\epsilon}</math> Rfsm_date_phrase</u>	5	24	41
$\Rightarrow$ Rfsm_version_phrase				State: 24 state type: $s/r$			
← rule	→ R#	sr#	Po	← subrule element	→ Brn	Gto	Red LA
c Rlint	29	2	1	$\epsilon$	24	0	24 4
c Rlint	29	1	1	lint NS lint_balls::TH lint_balls	24	10	11
t Rparameters	4	1	11	Rlint <u>Rfsm_date_phrase</u>	5	25	41
$\Rightarrow$ Rlint				State: 25 state type: $s$			
← rule	→ R#	sr#	Po	← subrule element	→ Brn	Gto	Red LA
c Rfsm_date_phrase	20	2	1	?	25	92	92
c Rfsm_date_phrase	20	1	1	,	25	93	101
t Rparameters	4	1	12	Rfsm_date_phrase <u>Rlint<math>^{\epsilon}</math> Rfsm_debug_phrase</u>	5	26	41
$\Rightarrow$ Rfsm_date_phrase				State: 26 state type: $s/r$			
← rule	→ R#	sr#	Po	← subrule element	→ Brn	Gto	Red LA
c Rlint	29	2	1	$\epsilon$	26	0	26 4
c Rlint	29	1	1	lint NS lint_balls::TH lint_balls	26	10	11
t Rparameters	4	1	13	Rlint <u>Rfsm_debug_phrase</u>	5	27	41
$\Rightarrow$ Rlint				State: 27 state type: $s$			
← rule	→ R#	sr#	Po	← subrule element	→ Brn	Gto	Red LA
c Rfsm_debug_phrase	23	2	1	?	27	102	102
c Rfsm_debug_phrase	23	1	1	,	27	103	111
t Rparameters	4	1	14	Rfsm_debug_phrase <u>Rlint<math>^{\epsilon}</math> Rfsm_comments_phrase</u>	5	28	41
$\Rightarrow$ Rfsm_debug_phrase				State: 28 state type: $s/r$			
← rule	→ R#	sr#	Po	← subrule element	→ Brn	Gto	Red LA
c Rlint	29	2	1	$\epsilon$	28	0	28 4
c Rlint	29	1	1	lint NS lint_balls::TH lint_balls	28	10	11
t Rparameters	4	1	15	Rlint <u>Rfsm_comments_phrase</u>	5	29	41
$\Rightarrow$ Rlint				State: 29 state type: $s$			

	←	<b>rule</b>	→	<b>R#</b>	<b>sr#</b>	<b>Po</b>	←	<b>subrule element</b>	→	<b>Brn</b>	<b>Gto</b>	<b>Red</b>	<b>LA</b>
c	Rfsm_comments_phrase			26	2	1	?			29	30	30	
c	Rfsm_comments_phrase			26	1	1	,			29	31	39	
t	Rparameters			4	1	16	Rfsm_comments_phrase <u>Rlint<sup>ε</sup></u>			5	40	41	
⇒ ?													
								State: 30 state type: <i>r</i>					
	←	<b>rule</b>	→	<b>R#</b>	<b>sr#</b>	<b>Po</b>	←	<b>subrule element</b>	→	<b>Brn</b>	<b>Gto</b>	<b>Red</b>	<b>LA</b>
t	Rfsm_comments_phrase			26	2	2				29	0	30	5
⇒,													
								State: 31 state type: <i>s/r</i>					
	←	<b>rule</b>	→	<b>R#</b>	<b>sr#</b>	<b>Po</b>	←	<b>subrule element</b>	→	<b>Brn</b>	<b>Gto</b>	<b>Red</b>	<b>LA</b>
c	Rlint			29	2	1	ε			31	0	31	2
c	Rlint			29	1	1	lint NS lint_balls::TH lint_balls			31	10	11	
t	Rfsm_comments_phrase			26	1	2	Rlint <u>Rfsm_comments</u>			29	32	39	
⇒ <u>Rlint</u>													
								State: 32 state type: <i>s</i>					
	←	<b>rule</b>	→	<b>R#</b>	<b>sr#</b>	<b>Po</b>	←	<b>subrule element</b>	→	<b>Brn</b>	<b>Gto</b>	<b>Red</b>	<b>LA</b>
c	Rfsm_comments			27	3	1	?			32	112	112	
c	Rfsm_comments			27	2	1	?  NULL			32	113	114	
c	Rfsm_comments			27	1	1	# fsm-comments NS identifier::TH identifier			32	113	115	
t	Rfsm_comments_phrase			26	1	3	Rfsm_comments <u>Rlint<sup>ε</sup> Rfsm_comments_string</u>			29	33	39	
⇒ <u>Rfsm_comments</u>													
								State: 33 state type: <i>s/r</i>					
	←	<b>rule</b>	→	<b>R#</b>	<b>sr#</b>	<b>Po</b>	←	<b>subrule element</b>	→	<b>Brn</b>	<b>Gto</b>	<b>Red</b>	<b>LA</b>
c	Rlint			29	2	1	ε			33	0	33	2
c	Rlint			29	1	1	lint NS lint_balls::TH lint_balls			33	10	11	
t	Rfsm_comments_phrase			26	1	4	Rlint <u>Rfsm_comments_string</u>			29	34	39	
⇒ <u>Rlint</u>													
								State: 34 state type: <i>s</i>					
	←	<b>rule</b>	→	<b>R#</b>	<b>sr#</b>	<b>Po</b>	←	<b>subrule element</b>	→	<b>Brn</b>	<b>Gto</b>	<b>Red</b>	<b>LA</b>
c	Rfsm_comments_string			28	3	1	?			34	35	35	
c	Rfsm_comments_string			28	1	1	c-string NS c_string::TH c_string			34	36	38	
c	Rfsm_comments_string			28	2	1	?  NULL			34	36	37	
t	Rfsm_comments_phrase			26	1	5	Rfsm_comments_string			29	39	39	
⇒ ?													
								State: 35 state type: <i>r</i>					
	←	<b>rule</b>	→	<b>R#</b>	<b>sr#</b>	<b>Po</b>	←	<b>subrule element</b>	→	<b>Brn</b>	<b>Gto</b>	<b>Red</b>	<b>LA</b>
t	Rfsm_comments_string			28	3	2				34	0	35	5
⇒    <u>arbitration-code: ε</u>													
								State: 36 state type: <i>s</i>					
	←	<b>rule</b>	→	<b>R#</b>	<b>sr#</b>	<b>Po</b>	←	<b>subrule element</b>	→	<b>Brn</b>	<b>Gto</b>	<b>Red</b>	<b>LA</b>
t	Rfsm_comments_string			28	2	2	?			34	37	37	
t	Rfsm_comments_string			28	1	2	c-string			34	38	38	
⇒ ?													
								State: 37 state type: <i>r</i>					
	←	<b>rule</b>	→	<b>R#</b>	<b>sr#</b>	<b>Po</b>	←	<b>subrule element</b>	→	<b>Brn</b>	<b>Gto</b>	<b>Red</b>	<b>LA</b>
t	Rfsm_comments_string			28	2	3				34	0	37	5
⇒ <u>c-string</u>													
								State: 38 state type: <i>r</i>					
	←	<b>rule</b>	→	<b>R#</b>	<b>sr#</b>	<b>Po</b>	←	<b>subrule element</b>	→	<b>Brn</b>	<b>Gto</b>	<b>Red</b>	<b>LA</b>
t	Rfsm_comments_string			28	1	3				34	0	38	5

$\Rightarrow$ <i>Rfsm_comments_string</i>		State: 39 state type: <i>r</i>	
← rule →	R# sr# Po ←	subrule element	→ Brn Gto Red LA
t Rfsm_comments_phrase	26 1 6		29 0 39 5
$\Rightarrow$ <i>Rfsm_comments_phrase</i>		State: 40 state type: <i>s/r</i>	
← rule →	R# sr# Po ←	subrule element	→ Brn Gto Red LA
c Rlint	29 2 1 $\epsilon$		40 0 40 6
c Rlint	29 1 1     lint NS_lint_balls::TH_lint_balls		40 10 11
t Rparameters	4 1 17 Rlint		5 41 41
$\Rightarrow$ <i>Rlint</i>		State: 41 state type: <i>r</i>	
← rule →	R# sr# Po ←	subrule element	→ Brn Gto Red LA
t Rparameters	4 1 18		5 0 41 6
$\Rightarrow$ <i> ? </i>		State: 42 state type: <i>r</i>	
← rule →	R# sr# Po ←	subrule element	→ Brn Gto Red LA
t Rfsm_id	6 3 2		15 0 42 2
$\Rightarrow$ <i>    arbitration-code: <math>\epsilon</math></i>		State: 43 state type: <i>s</i>	
← rule →	R# sr# Po ←	subrule element	→ Brn Gto Red LA
t Rfsm_id	6 2 2 <i> ? </i>		15 44 44
t Rfsm_id	6 1 2 # fsm-id		15 45 45
$\Rightarrow$ <i> ? </i>		State: 44 state type: <i>r</i>	
← rule →	R# sr# Po ←	subrule element	→ Brn Gto Red LA
t Rfsm_id	6 2 3		15 0 44 2
$\Rightarrow$ <i># fsm-id</i>		State: 45 state type: <i>r</i>	
← rule →	R# sr# Po ←	subrule element	→ Brn Gto Red LA
t Rfsm_id	6 1 3		15 0 45 2
$\Rightarrow$ <i>Rfsm_id</i>		State: 46 state type: <i>s/r</i>	
← rule →	R# sr# Po ←	subrule element	→ Brn Gto Red LA
c Rlint	29 2 1 $\epsilon$		46 0 46 2
c Rlint	29 1 1     lint NS_lint_balls::TH_lint_balls		46 10 11
t Rfsm_id_phrase	5 1 2 Rlint <u>Rfsm_id_name</u>		15 47 52
$\Rightarrow$ <i>Rlint</i>		State: 47 state type: <i>s</i>	
← rule →	R# sr# Po ←	subrule element	→ Brn Gto Red LA
c Rfsm_id_name	7 3 1 <i> ? </i>		47 48 48
c Rfsm_id_name	7 1 1     c-string NS_c_string::TH_c_string		47 49 51
c Rfsm_id_name	7 2 1     <i> ? </i> NULL		47 49 50
t Rfsm_id_phrase	5 1 3 Rfsm_id_name		15 52 52
$\Rightarrow$ <i> ? </i>		State: 48 state type: <i>r</i>	
← rule →	R# sr# Po ←	subrule element	→ Brn Gto Red LA
t Rfsm_id_name	7 3 2		47 0 48 7
$\Rightarrow$ <i>    arbitration-code: <math>\epsilon</math></i>		State: 49 state type: <i>s</i>	
← rule →	R# sr# Po ←	subrule element	→ Brn Gto Red LA
t Rfsm_id_name	7 2 2 <i> ? </i>		47 50 50



t Rfsm_id_name	7	1	2	c-string		47	51	51	
⇒ ?									
← rule	→ R#	sr#	Po	←	subrule element	→ Brn	Gto	Red	LA
t Rfsm_id_name	7	2	3			47	0	50	7
⇒c-string									
← rule	→ R#	sr#	Po	←	subrule element	→ Brn	Gto	Red	LA
t Rfsm_id_name	7	1	3			47	0	51	7
⇒Rfsm_id_name									
← rule	→ R#	sr#	Po	←	subrule element	→ Brn	Gto	Red	LA
t Rfsm_id_phrase	5	1	4			15	0	52	7
⇒ ?									
← rule	→ R#	sr#	Po	←	subrule element	→ Brn	Gto	Red	LA
t Rfsm_filename_phrase	8	2	2			17	0	53	7
⇒,									
← rule	→ R#	sr#	Po	←	subrule element	→ Brn	Gto	Red	LA
c Rlint	29	2	1	ε		54	0	54	2
c Rlint	29	1	1	lint NS lint_balls::TH lint_balls		54	10	11	
t Rfsm_filename_phrase	8	1	2	Rlint <u>Rfsm_filename</u>		17	55	62	
⇒Rlint									
← rule	→ R#	sr#	Po	←	subrule element	→ Brn	Gto	Red	LA
c Rfsm_filename	9	3	1	?		55	116	116	
c Rfsm_filename	9	2	1	?  NULL		55	117	118	
c Rfsm_filename	9	1	1	# fsm_filename NS identifier::TH identifier		55	117	119	
t Rfsm_filename_phrase	8	1	3	Rfsm_filename <u>Rlint<sup>ε</sup> Rfsm_filename.name</u>		17	56	62	
⇒Rfsm_filename									
← rule	→ R#	sr#	Po	←	subrule element	→ Brn	Gto	Red	LA
c Rlint	29	2	1	ε		56	0	56	2
c Rlint	29	1	1	lint NS lint_balls::TH lint_balls		56	10	11	
t Rfsm_filename_phrase	8	1	4	Rlint <u>Rfsm_filename.name</u>		17	57	62	
⇒Rlint									
← rule	→ R#	sr#	Po	←	subrule element	→ Brn	Gto	Red	LA
c Rfsm_filename_name	10	3	1	?		57	58	58	
c Rfsm_filename_name	10	2	1	?  NULL		57	59	60	
c Rfsm_filename_name	10	1	1	identifier NS identifier::TH identifier		57	59	61	
t Rfsm_filename_phrase	8	1	5	Rfsm_filename_name		17	62	62	
⇒ ?									
← rule	→ R#	sr#	Po	←	subrule element	→ Brn	Gto	Red	LA
t Rfsm_filename_name	10	3	2			57	0	58	7
⇒    arbitration-code: ε									
← rule	→ R#	sr#	Po	←	subrule element	→ Brn	Gto	Red	LA
t Rfsm_filename_name	10	2	2	?		57	60	60	
t Rfsm_filename_name	10	1	2	identifier		57	61	61	

$\Rightarrow$  ?		State: 60 state type: $r$	
← rule → R# sr# Po ←		subrule element	→ Brn Gto Red LA
t Rfsm_filename_name 10 2 3			57 0 60 7
$\Rightarrow$ <i>identifier</i>		State: 61 state type: $r$	
← rule → R# sr# Po ←		subrule element	→ Brn Gto Red LA
t Rfsm_filename_name 10 1 3			57 0 61 7
$\Rightarrow$ <i>Rfsm_filename_name</i>		State: 62 state type: $r$	
← rule → R# sr# Po ←		subrule element	→ Brn Gto Red LA
t Rfsm_filename_phrase 8 1 6			17 0 62 7
$\Rightarrow$  ?		State: 63 state type: $r$	
← rule → R# sr# Po ←		subrule element	→ Brn Gto Red LA
t Rfsm_namespace_phrase 11 2 2			19 0 63 7
$\Rightarrow$ ,		State: 64 state type: $s/r$	
← rule → R# sr# Po ←		subrule element	→ Brn Gto Red LA
c Rlint 29 2 1 $\epsilon$			64 0 64 2
c Rlint 29 1 1     lint NS_lint_balls::TH_lint_balls			64 10 11
t Rfsm_namespace_phrase 11 1 2 Rlint <u><i>Rfsm_namespace</i></u>			19 65 72
$\Rightarrow$ <i>Rlint</i>		State: 65 state type: $s$	
← rule → R# sr# Po ←		subrule element	→ Brn Gto Red LA
c Rfsm_namespace 12 3 1  ?			65 120 120
c Rfsm_namespace 12 1 1     # fsm_namespace NS_identifier::TH_identifier			65 121 123
c Rfsm_namespace 12 2 1      ?  NULL			65 121 122
t Rfsm_namespace_phrase 11 1 3 Rfsm_namespace <u><i>Rlint<math>\epsilon</math> Rfsm_namespace_name</i></u>			19 66 72
$\Rightarrow$ <i>Rfsm_namespace</i>		State: 66 state type: $s/r$	
← rule → R# sr# Po ←		subrule element	→ Brn Gto Red LA
c Rlint 29 2 1 $\epsilon$			66 0 66 2
c Rlint 29 1 1     lint NS_lint_balls::TH_lint_balls			66 10 11
t Rfsm_namespace_phrase 11 1 4 Rlint <u><i>Rfsm_namespace_name</i></u>			19 67 72
$\Rightarrow$ <i>Rlint</i>		State: 67 state type: $s$	
← rule → R# sr# Po ←		subrule element	→ Brn Gto Red LA
c Rfsm_namespace_name 13 3 1  ?			67 68 68
c Rfsm_namespace_name 13 1 1     identifier NS_identifier::TH_identifier			67 69 71
c Rfsm_namespace_name 13 2 1      ?  NULL			67 69 70
t Rfsm_namespace_phrase 11 1 5 Rfsm_namespace_name			19 72 72
$\Rightarrow$  ?		State: 68 state type: $r$	
← rule → R# sr# Po ←		subrule element	→ Brn Gto Red LA
t Rfsm_namespace_name 13 3 2			67 0 68 7
$\Rightarrow$     <i>arbitration-code: <math>\epsilon</math></i>		State: 69 state type: $s$	
← rule → R# sr# Po ←		subrule element	→ Brn Gto Red LA
t Rfsm_namespace_name 13 2 2  ?			67 70 70
t Rfsm_namespace_name 13 1 2 identifier			67 71 71

$\Rightarrow$  ?		State: 70 state type: $r$	
← rule → R# sr# Po ←	subrule element	→ Brn Gto Red LA	
t Rfsm_namespace_name 13 2 3		67 0 70 7	
$\Rightarrow$ <i>identifier</i>		State: 71 state type: $r$	
← rule → R# sr# Po ←	subrule element	→ Brn Gto Red LA	
t Rfsm_namespace_name 13 1 3		67 0 71 7	
$\Rightarrow$ <i>Rfsm_namespace_name</i>		State: 72 state type: $r$	
← rule → R# sr# Po ←	subrule element	→ Brn Gto Red LA	
t Rfsm_namespace_phrase 11 1 6		19 0 72 7	
$\Rightarrow$  ?		State: 73 state type: $r$	
← rule → R# sr# Po ←	subrule element	→ Brn Gto Red LA	
t Rfsm_class_phrase 14 2 2		21 0 73 7	
$\Rightarrow$ ,		State: 74 state type: $s/r$	
← rule → R# sr# Po ←	subrule element	→ Brn Gto Red LA	
c Rlint 29 2 1 $\epsilon$		74 0 74 2	
c Rlint 29 1 1     lint NS_lint_balls::TH_lint_balls		74 10 11	
t Rfsm_class_phrase 14 1 2 Rlint <u>Rfsm_class</u>		21 75 81	
$\Rightarrow$ <i>Rlint</i>		State: 75 state type: $s$	
← rule → R# sr# Po ←	subrule element	→ Brn Gto Red LA	
c Rfsm_class 15 3 1  ?		75 124 124	
c Rfsm_class 15 1 1     # fsm-class NS_identifier::TH_identifier		75 125 127	
c Rfsm_class 15 2 1      ?  NULL		75 125 126	
t Rfsm_class_phrase 14 1 3 Rfsm_class <u>Rlint<math>^{\epsilon}</math> Rfsm_class_name</u>		21 76 81	
$\Rightarrow$ <i>Rfsm_class</i>		State: 76 state type: $s/r$	
← rule → R# sr# Po ←	subrule element	→ Brn Gto Red LA	
c Rlint 29 2 1 $\epsilon$		76 0 76 8	
c Rlint 29 1 1     lint NS_lint_balls::TH_lint_balls		76 10 11	
t Rfsm_class_phrase 14 1 4 Rlint <u>Rfsm_class_name</u>		21 77 81	
$\Rightarrow$ <i>Rlint</i>		State: 77 state type: $s$	
← rule → R# sr# Po ←	subrule element	→ Brn Gto Red LA	
c Rfsm_class_name 16 2 1      ?  NULL		77 78 79	
c Rfsm_class_name 16 1 1     fsm-class-phrase NS_fsm_class_phrase.th::TH_fsm_class_phrase.th		77 78 80	
t Rfsm_class_phrase 14 1 5 Rfsm_class_name		21 81 81	
$\Rightarrow$     <i>arbitration-code: <math>\epsilon</math></i>		State: 78 state type: $s$	
← rule → R# sr# Po ←	subrule element	→ Brn Gto Red LA	
t Rfsm_class_name 16 2 2  ?		77 79 79	
t Rfsm_class_name 16 1 2 fsm-class-phrase		77 80 80	
$\Rightarrow$  ?		State: 79 state type: $r$	
← rule → R# sr# Po ←	subrule element	→ Brn Gto Red LA	
t Rfsm_class_name 16 2 3		77 0 79 7	
$\Rightarrow$ <i>fsm-class-phrase</i>		State: 80 state type: $r$	

←	<b>rule</b>	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
t	Rfsm_class_name		16	1	3				77	0	80	7
⇒	<i>Rfsm_class_name</i>						State: 81 state type: <i>r</i>					
←	<b>rule</b>	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
t	Rfsm_class_phrase		14	1	6				21	0	81	7
⇒	?						State: 82 state type: <i>r</i>					
←	<b>rule</b>	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
t	Rfsm_version_phrase		17	2	2				23	0	82	7
⇒	,						State: 83 state type: <i>s/r</i>					
←	<b>rule</b>	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
c	Rlint		29	2	1	ε			83	0	83	2
c	Rlint		29	1	1	lint NS_lint_balls::TH_lint_balls			83	10	11	
t	Rfsm_version_phrase		17	1	2	Rlint <u>Rfsm_version</u>			23	84	91	
⇒	<i>Rlint</i>						State: 84 state type: <i>s</i>					
←	<b>rule</b>	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
c	Rfsm_version		18	3	1	?			84	128	128	
c	Rfsm_version		18	2	1	?  NULL			84	129	130	
c	Rfsm_version		18	1	1	# fsm-version NS_identifier::TH_identifier			84	129	131	
t	Rfsm_version_phrase		17	1	3	Rfsm_version <u>Rlint</u> <sup>ε</sup> <u>Rfsm_version_string</u>			23	85	91	
⇒	<i>Rfsm_version</i>						State: 85 state type: <i>s/r</i>					
←	<b>rule</b>	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
c	Rlint		29	2	1	ε			85	0	85	2
c	Rlint		29	1	1	lint NS_lint_balls::TH_lint_balls			85	10	11	
t	Rfsm_version_phrase		17	1	4	Rlint <u>Rfsm_version_string</u>			23	86	91	
⇒	<i>Rlint</i>						State: 86 state type: <i>s</i>					
←	<b>rule</b>	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
c	Rfsm_version_string		19	3	1	?			86	87	87	
c	Rfsm_version_string		19	1	1	c-string NS_c_string::TH_c_string			86	88	90	
c	Rfsm_version_string		19	2	1	?  NULL			86	88	89	
t	Rfsm_version_phrase		17	1	5	Rfsm_version_string			23	91	91	
⇒	?						State: 87 state type: <i>r</i>					
←	<b>rule</b>	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
t	Rfsm_version_string		19	3	2				86	0	87	7
⇒	<i>arbitration-code</i> : ε						State: 88 state type: <i>s</i>					
←	<b>rule</b>	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
t	Rfsm_version_string		19	2	2	?			86	89	89	
t	Rfsm_version_string		19	1	2	c-string			86	90	90	
⇒	?						State: 89 state type: <i>r</i>					
←	<b>rule</b>	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
t	Rfsm_version_string		19	2	3				86	0	89	7
⇒	<i>c-string</i>						State: 90 state type: <i>r</i>					
←	<b>rule</b>	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA

t Rfsm_version_string	19	1	3					86	0	90	7		
$\Rightarrow$ <i>Rfsm_version_string</i>													
← rule	→ R#	sr#	Po	←				subrule element	→	Brn	Gto	Red	LA
t Rfsm_version_phrase	17	1	6							23	0	91	7
$\Rightarrow$  ?													
← rule	→ R#	sr#	Po	←				subrule element	→	Brn	Gto	Red	LA
t Rfsm_date_phrase	20	2	2							25	0	92	7
$\Rightarrow$ ,													
← rule	→ R#	sr#	Po	←				subrule element	→	Brn	Gto	Red	LA
c Rlint	29	2	1	ε						93	0	93	2
c Rlint	29	1	1	lint NS lint_balls::TH lint_balls						93	10	11	
t Rfsm_date_phrase	20	1	2	Rlint <u>Rfsm_date</u>						25	94	101	
$\Rightarrow$ <i>Rlint</i>													
← rule	→ R#	sr#	Po	←				subrule element	→	Brn	Gto	Red	LA
c Rfsm_date	21	3	1	?						94	132	132	
c Rfsm_date	21	2	1	?  NULL						94	133	134	
c Rfsm_date	21	1	1	# fsm-date NS identifier::TH identifier						94	133	135	
t Rfsm_date_phrase	20	1	3	Rfsm_date <u>Rlint</u> <u>Rfsm_date_string</u>						25	95	101	
$\Rightarrow$ <i>Rfsm_date</i>													
← rule	→ R#	sr#	Po	←				subrule element	→	Brn	Gto	Red	LA
c Rlint	29	2	1	ε						95	0	95	2
c Rlint	29	1	1	lint NS lint_balls::TH lint_balls						95	10	11	
t Rfsm_date_phrase	20	1	4	Rlint <u>Rfsm_date_string</u>						25	96	101	
$\Rightarrow$ <i>Rlint</i>													
← rule	→ R#	sr#	Po	←				subrule element	→	Brn	Gto	Red	LA
c Rfsm_date_string	22	3	1	?						96	97	97	
c Rfsm_date_string	22	1	1	c-string NS c_string::TH c_string						96	98	100	
c Rfsm_date_string	22	2	1	?  NULL						96	98	99	
t Rfsm_date_phrase	20	1	5	Rfsm_date_string						25	101	101	
$\Rightarrow$  ?													
← rule	→ R#	sr#	Po	←				subrule element	→	Brn	Gto	Red	LA
t Rfsm_date_string	22	3	2							96	0	97	7
$\Rightarrow$     <i>arbitration-code</i> : ε													
← rule	→ R#	sr#	Po	←				subrule element	→	Brn	Gto	Red	LA
t Rfsm_date_string	22	2	2	?						96	99	99	
t Rfsm_date_string	22	1	2	c-string						96	100	100	
$\Rightarrow$  ?													
← rule	→ R#	sr#	Po	←				subrule element	→	Brn	Gto	Red	LA
t Rfsm_date_string	22	2	3							96	0	99	7
$\Rightarrow$ <i>c-string</i>													
← rule	→ R#	sr#	Po	←				subrule element	→	Brn	Gto	Red	LA
t Rfsm_date_string	22	1	3							96	0	100	7

$\Rightarrow$ <i>Rfsm_date_string</i>		State: 101 state type: <i>r</i>	
← rule	→ R# sr# Po ←	subrule element	→ Brn Gto Red LA
t Rfsm_date_phrase	20 1 6		25 0 101 7
$\Rightarrow$ <i> ? </i>		State: 102 state type: <i>r</i>	
← rule	→ R# sr# Po ←	subrule element	→ Brn Gto Red LA
t Rfsm_debug_phrase	23 2 2		27 0 102 7
$\Rightarrow$ <i>,</i>		State: 103 state type: <i>s/r</i>	
← rule	→ R# sr# Po ←	subrule element	→ Brn Gto Red LA
c Rlint	29 2 1 $\epsilon$		103 0 103 2
c Rlint	29 1 1 <i>   </i> lint NS lint_balls::TH lint_balls		103 10 11
t Rfsm_debug_phrase	23 1 2 Rlint <u><i>Rfsm_debug</i></u>		27 104 111
$\Rightarrow$ <i>Rlint</i>		State: 104 state type: <i>s</i>	
← rule	→ R# sr# Po ←	subrule element	→ Brn Gto Red LA
c Rfsm_debug	24 3 1 <i> ? </i>		104 136 136
c Rfsm_debug	24 2 1 <i>   </i> <i> ? </i> NULL		104 137 138
c Rfsm_debug	24 1 1 <i>   </i> # fsm-debug NS identifier::TH identifier		104 137 139
t Rfsm_debug_phrase	23 1 3 Rfsm_debug <u><i>Rlint</i></u> <u><i>Rfsm_debug_string</i></u>		27 105 111
$\Rightarrow$ <i>Rfsm_debug</i>		State: 105 state type: <i>s/r</i>	
← rule	→ R# sr# Po ←	subrule element	→ Brn Gto Red LA
c Rlint	29 2 1 $\epsilon$		105 0 105 2
c Rlint	29 1 1 <i>   </i> lint NS lint_balls::TH lint_balls		105 10 11
t Rfsm_debug_phrase	23 1 4 Rlint <u><i>Rfsm_debug_string</i></u>		27 106 111
$\Rightarrow$ <i>Rlint</i>		State: 106 state type: <i>s</i>	
← rule	→ R# sr# Po ←	subrule element	→ Brn Gto Red LA
c Rfsm_debug_string	25 3 1 <i> ? </i>		106 107 107
c Rfsm_debug_string	25 1 1 <i>   </i> c-string NS c_string::TH c_string		106 108 110
c Rfsm_debug_string	25 2 1 <i>   </i> <i> ? </i> NULL		106 108 109
t Rfsm_debug_phrase	23 1 5 Rfsm_debug_string		27 111 111
$\Rightarrow$ <i> ? </i>		State: 107 state type: <i>r</i>	
← rule	→ R# sr# Po ←	subrule element	→ Brn Gto Red LA
t Rfsm_debug_string	25 3 2		106 0 107 7
$\Rightarrow$ <i>    arbitration-code: <math>\epsilon</math></i>		State: 108 state type: <i>s</i>	
← rule	→ R# sr# Po ←	subrule element	→ Brn Gto Red LA
t Rfsm_debug_string	25 2 2 <i> ? </i>		106 109 109
t Rfsm_debug_string	25 1 2 c-string		106 110 110
$\Rightarrow$ <i> ? </i>		State: 109 state type: <i>r</i>	
← rule	→ R# sr# Po ←	subrule element	→ Brn Gto Red LA
t Rfsm_debug_string	25 2 3		106 0 109 7
$\Rightarrow$ <i>c-string</i>		State: 110 state type: <i>r</i>	
← rule	→ R# sr# Po ←	subrule element	→ Brn Gto Red LA
t Rfsm_debug_string	25 1 3		106 0 110 7

$\Rightarrow$ <i>Rfsm_debug_string</i>		State: 111 state type: <i>r</i>	
← rule → R# sr# Po ←	subrule element	→ Brn Gto Red LA	
t Rfsm_debug_phrase 23 1 6		27 0 111 7	
$\Rightarrow$ <i> ? </i>		State: 112 state type: <i>r</i>	
← rule → R# sr# Po ←	subrule element	→ Brn Gto Red LA	
t Rfsm_comments 27 3 2		32 0 112 2	
$\Rightarrow$ <i>    arbitration-code: ε</i>		State: 113 state type: <i>s</i>	
← rule → R# sr# Po ←	subrule element	→ Brn Gto Red LA	
t Rfsm_comments 27 2 2 <i> ? </i>		32 114 114	
t Rfsm_comments 27 1 2 <i># fsm-comments</i>		32 115 115	
$\Rightarrow$ <i> ? </i>		State: 114 state type: <i>r</i>	
← rule → R# sr# Po ←	subrule element	→ Brn Gto Red LA	
t Rfsm_comments 27 2 3		32 0 114 2	
$\Rightarrow$ <i># fsm-comments</i>		State: 115 state type: <i>r</i>	
← rule → R# sr# Po ←	subrule element	→ Brn Gto Red LA	
t Rfsm_comments 27 1 3		32 0 115 2	
$\Rightarrow$ <i> ? </i>		State: 116 state type: <i>r</i>	
← rule → R# sr# Po ←	subrule element	→ Brn Gto Red LA	
t Rfsm_filename 9 3 2		55 0 116 2	
$\Rightarrow$ <i>    arbitration-code: ε</i>		State: 117 state type: <i>s</i>	
← rule → R# sr# Po ←	subrule element	→ Brn Gto Red LA	
t Rfsm_filename 9 2 2 <i> ? </i>		55 118 118	
t Rfsm_filename 9 1 2 <i># fsm-filename</i>		55 119 119	
$\Rightarrow$ <i> ? </i>		State: 118 state type: <i>r</i>	
← rule → R# sr# Po ←	subrule element	→ Brn Gto Red LA	
t Rfsm_filename 9 2 3		55 0 118 2	
$\Rightarrow$ <i># fsm-filename</i>		State: 119 state type: <i>r</i>	
← rule → R# sr# Po ←	subrule element	→ Brn Gto Red LA	
t Rfsm_filename 9 1 3		55 0 119 2	
$\Rightarrow$ <i> ? </i>		State: 120 state type: <i>r</i>	
← rule → R# sr# Po ←	subrule element	→ Brn Gto Red LA	
t Rfsm_namespace 12 3 2		65 0 120 2	
$\Rightarrow$ <i>    arbitration-code: ε</i>		State: 121 state type: <i>s</i>	
← rule → R# sr# Po ←	subrule element	→ Brn Gto Red LA	
t Rfsm_namespace 12 2 2 <i> ? </i>		65 122 122	
t Rfsm_namespace 12 1 2 <i># fsm-namespace</i>		65 123 123	
$\Rightarrow$ <i> ? </i>		State: 122 state type: <i>r</i>	
← rule → R# sr# Po ←	subrule element	→ Brn Gto Red LA	
t Rfsm_namespace 12 2 3		65 0 122 2	

$\Rightarrow$ #fsm-namespace		State: 123 state type: $r$	
← rule	→ R# sr# Po ←	subrule element	→ Brn Gto Red LA
t Rfsm_namespace	12 1 3		65 0 123 2
$\Rightarrow$  ?		State: 124 state type: $r$	
← rule	→ R# sr# Po ←	subrule element	→ Brn Gto Red LA
t Rfsm_class	15 3 2		75 0 124 8
$\Rightarrow$     arbitration-code: $\epsilon$		State: 125 state type: $s$	
← rule	→ R# sr# Po ←	subrule element	→ Brn Gto Red LA
t Rfsm_class	15 2 2  ?		75 126 126
t Rfsm_class	15 1 2 # fsm-class		75 127 127
$\Rightarrow$  ?		State: 126 state type: $r$	
← rule	→ R# sr# Po ←	subrule element	→ Brn Gto Red LA
t Rfsm_class	15 2 3		75 0 126 8
$\Rightarrow$ #fsm-class		State: 127 state type: $r$	
← rule	→ R# sr# Po ←	subrule element	→ Brn Gto Red LA
t Rfsm_class	15 1 3		75 0 127 8
$\Rightarrow$  ?		State: 128 state type: $r$	
← rule	→ R# sr# Po ←	subrule element	→ Brn Gto Red LA
t Rfsm_version	18 3 2		84 0 128 2
$\Rightarrow$     arbitration-code: $\epsilon$		State: 129 state type: $s$	
← rule	→ R# sr# Po ←	subrule element	→ Brn Gto Red LA
t Rfsm_version	18 2 2  ?		84 130 130
t Rfsm_version	18 1 2 # fsm-version		84 131 131
$\Rightarrow$  ?		State: 130 state type: $r$	
← rule	→ R# sr# Po ←	subrule element	→ Brn Gto Red LA
t Rfsm_version	18 2 3		84 0 130 2
$\Rightarrow$ #fsm-version		State: 131 state type: $r$	
← rule	→ R# sr# Po ←	subrule element	→ Brn Gto Red LA
t Rfsm_version	18 1 3		84 0 131 2
$\Rightarrow$  ?		State: 132 state type: $r$	
← rule	→ R# sr# Po ←	subrule element	→ Brn Gto Red LA
t Rfsm_date	21 3 2		94 0 132 2
$\Rightarrow$     arbitration-code: $\epsilon$		State: 133 state type: $s$	
← rule	→ R# sr# Po ←	subrule element	→ Brn Gto Red LA
t Rfsm_date	21 2 2  ?		94 134 134
t Rfsm_date	21 1 2 # fsm-date		94 135 135
$\Rightarrow$  ?		State: 134 state type: $r$	
← rule	→ R# sr# Po ←	subrule element	→ Brn Gto Red LA
t Rfsm_date	21 2 3		94 0 134 2



$\Rightarrow$ <i>#fsm-date</i>		State: 135 state type: <i>r</i>	
← rule	→ R# sr# Po ←	subrule element	→ Brn Gto Red LA
t Rfsm_date	21 1 3		94 0 135 2
$\Rightarrow$ <i> ? </i>		State: 136 state type: <i>r</i>	
← rule	→ R# sr# Po ←	subrule element	→ Brn Gto Red LA
t Rfsm_debug	24 3 2		104 0 136 2
$\Rightarrow$ <i>    arbitration-code: ε</i>		State: 137 state type: <i>s</i>	
← rule	→ R# sr# Po ←	subrule element	→ Brn Gto Red LA
t Rfsm_debug	24 2 2 <i> ? </i>		104 138 138
t Rfsm_debug	24 1 2 <i># fsm-debug</i>		104 139 139
$\Rightarrow$ <i> ? </i>		State: 138 state type: <i>r</i>	
← rule	→ R# sr# Po ←	subrule element	→ Brn Gto Red LA
t Rfsm_debug	24 2 3		104 0 138 2
$\Rightarrow$ <i>#fsm-debug</i>		State: 139 state type: <i>r</i>	
← rule	→ R# sr# Po ←	subrule element	→ Brn Gto Red LA
t Rfsm_debug	24 1 3		104 0 139 2

**88. Index.**

$\epsilon$  : 84, 85.  
 # fsm-class: 42.  
 # fsm-comments: 77.  
 # fsm-date: 59.  
 # fsm-debug: 68.  
 # fsm-filename: 24.  
 # fsm-id: 15.  
 # fsm-namespace: 33.  
 # fsm-version: 50.  
 |||: 15, 18, 24, 27, 33, 36, 42, 45, 50, 53, 59,  
     62, 68, 71, 77, 80, 84, 85.  
 |?: 9, 11, 15, 18, 22, 24, 27, 31, 33, 36, 40, 42,  
     45, 48, 50, 53, 57, 59, 62, 66, 68, 71, 75, 77, 80.  
 \_\_FILE\_\_: 5, 10, 12, 16, 17, 21, 23, 25, 26, 29, 30,  
     32, 34, 35, 38, 39, 41, 43, 44, 49, 51, 52, 56, 58,  
     60, 61, 65, 67, 69, 70, 72, 74, 76, 78, 79, 83.  
 \_\_LINE\_\_: 5, 10, 12, 16, 17, 21, 23, 25, 26, 29, 30,  
     32, 34, 35, 38, 39, 41, 43, 44, 49, 51, 52, 56, 58,  
     60, 61, 65, 67, 69, 70, 72, 74, 76, 78, 79, 83.  
 add\_cweb\_marker: 5.  
 AST: 5.  
 c-string: 18, 53, 62, 71, 80.  
 c\_str: 72.  
 c\_string: 72.  
 CAbs\_lr1\_sym: 10, 12, 16, 17, 21, 23, 25, 26, 29,  
     30, 32, 34, 35, 38, 39, 41, 43, 44, 49, 51, 52, 56,  
     58, 60, 61, 65, 67, 69, 70, 72, 74, 76, 78, 79, 83.  
 Cfsm\_phrase\_th: 8, 19, 28, 37, 46, 54, 63, 72, 81.  
 comment: 81.  
 current\_token: 10, 12, 17, 21, 26, 30, 32, 35, 39, 41,  
     44, 49, 52, 56, 58, 61, 65, 67, 70, 74, 76, 79, 83.  
 CWEB\_MARKER: 5.  
 date: 63.  
 debug: 72.  
 Err\_fsm\_debug\_string\_not\_true\_or\_false: 72.  
 Err\_no\_close\_parenthesis: 12.  
 Err\_no\_comma\_present: 23, 32, 41, 49, 58, 67, 76.  
 Err\_no\_fsm\_class\_present: 43, 44.  
 Err\_no\_fsm\_comments\_present: 78, 79.  
 Err\_no\_fsm\_comments\_string: 83.  
 Err\_no\_fsm\_date\_present: 60, 61.  
 Err\_no\_fsm\_date\_string: 65.  
 Err\_no\_fsm\_debug\_present: 69, 70.  
 Err\_no\_fsm\_debug\_string: 74.  
 Err\_no\_fsm\_filename\_id\_present: 29, 30.  
 Err\_no\_fsm\_filename\_present: 25, 26.  
 Err\_no\_fsm\_id\_present: 16, 17.  
 Err\_no\_fsm\_id\_string: 21.  
 Err\_no\_fsm\_namespace\_id\_present: 38, 39.  
 Err\_no\_fsm\_namespace\_present: 34, 35.  
 Err\_no\_fsm\_version\_present: 51, 52.  
 Err\_no\_fsm\_version\_string: 56.  
 Err\_no\_open\_parenthesis: 10.  
 filename\_id: 28.  
 fsm: 8, 19, 28, 37, 46, 54, 63, 72, 81.  
 fsm-class-phrase: 45.  
 fsm\_class\_phrase: 46.  
 fsm\_id: 19.  
 fsm\_phrase\_: 4, 5, 6, 8, 19, 28, 37, 46, 54, 63, 72, 81.  
 fsm\_phrase\_th: 2.  
 fsm\_tbl\_: 8, 19, 28, 37, 46, 54, 63, 72, 81.  
 identifier: 27, 36.  
 lint: 84, 85.  
 namespace\_id: 37.  
 NS\_c\_string::TH\_c\_string: 18, 53, 62, 71, 80.  
 NS\_fsm\_class\_phrase\_th::TH\_fsm\_class\_phrase\_th: 45.█  
 NS\_identifier::TH\_identifier: 15, 24, 27, 33,  
     36, 42, 50, 59, 68, 77.  
 NS\_lint\_balls::TH\_lint\_balls: 84, 85.  
 NULL: 15, 18, 24, 27, 33, 36, 42, 45, 50, 53, 59,  
     62, 68, 71, 77, 80.  
 parser\_: 5, 8, 10, 12, 16, 17, 19, 20, 21, 23, 25, 26,  
     28, 29, 30, 32, 34, 35, 37, 38, 39, 41, 43, 44, 46,  
     47, 49, 51, 52, 54, 55, 56, 58, 60, 61, 63, 64, 65,  
     67, 69, 70, 72, 73, 74, 76, 78, 79, 81, 82, 83.  
 phrase\_tree: 5.  
 p2\_: 16, 19, 20, 25, 28, 29, 34, 37, 38, 43, 46, 47,  
     51, 54, 55, 60, 63, 64, 69, 72, 73, 78, 81, 82.  
 Rclose\_par: 8.  
 Rclose\_par: 11, 12.  
 Rfsm\_class: 40.  
 Rfsm\_class\_name: 40.  
 Rfsm\_class\_phrase: 13.  
 Rfsm\_comments: 75.  
 Rfsm\_comments\_phrase: 13.  
 Rfsm\_comments\_string: 75.  
 Rfsm\_date: 57.  
 Rfsm\_date\_phrase: 13.  
 Rfsm\_date\_string: 57.  
 Rfsm\_debug: 66.  
 Rfsm\_debug\_phrase: 13.  
 Rfsm\_debug\_string: 66.  
 Rfsm\_filename: 22.  
 Rfsm\_filename\_name: 22.  
 Rfsm\_filename\_phrase: 13.  
 Rfsm\_id: 14.  
 Rfsm\_id\_name: 14.  
 Rfsm\_id\_phrase: 13.  
 Rfsm\_namespace: 31.  
 Rfsm\_namespace\_name: 31.  
 Rfsm\_namespace\_phrase: 13.  
 Rfsm\_version: 48.

- Rfsm\_version\_phrase:** 13.  
**Rfsm\_version\_string:** 48.  
*Rfsm\_class:* [42](#), [43](#), [44](#).  
*Rfsm\_class\_name:* [45](#), [46](#), [47](#).  
*Rfsm\_class\_phrase:* [40](#), [41](#).  
*Rfsm\_comments:* [77](#), [78](#), [79](#).  
*Rfsm\_comments\_phrase:* [75](#), [76](#).  
*Rfsm\_comments\_string:* [80](#), [81](#), [82](#), [83](#).  
*Rfsm\_date:* [59](#), [60](#), [61](#).  
*Rfsm\_date\_phrase:* [57](#), [58](#).  
*Rfsm\_date\_string:* [62](#), [63](#), [64](#), [65](#).  
*Rfsm\_debug:* [68](#), [69](#), [70](#).  
*Rfsm\_debug\_phrase:* [66](#), [67](#).  
*Rfsm\_debug\_string:* [71](#), [72](#), [73](#), [74](#).  
*Rfsm\_filename:* [24](#), [25](#), [26](#).  
*Rfsm\_filename\_name:* [27](#), [28](#), [29](#), [30](#).  
*Rfsm\_filename\_phrase:* [22](#), [23](#).  
*Rfsm\_id:* [15](#), [16](#), [17](#).  
*Rfsm\_id\_name:* [18](#), [19](#), [20](#), [21](#).  
*Rfsm\_id\_phrase:* [14](#).  
*Rfsm\_namespace:* [33](#), [34](#), [35](#).  
*Rfsm\_namespace\_name:* [36](#), [37](#), [38](#), [39](#).  
*Rfsm\_namespace\_phrase:* [31](#), [32](#).  
*Rfsm\_phrase:* [8](#).  
*Rfsm\_version:* [50](#), [51](#), [52](#).  
*Rfsm\_version\_phrase:* [48](#), [49](#).  
*Rfsm\_version\_string:* [53](#), [54](#), [55](#), [56](#).  
*Rlint:* [84](#).  
**Rlint:** [8](#), [13](#), [14](#), [22](#), [31](#), [40](#), [48](#), [57](#), [66](#), [75](#).  
**Rlint\_epi:** [8](#).  
*Rlint\_epi:* [85](#).  
**Ropen\_par:** [8](#).  
*Ropen\_par:* [9](#), [10](#).  
*Rparameters:* [13](#).  
**Rparameters:** [8](#).  
**RSVP:** [8](#), [10](#), [12](#), [16](#), [17](#), [20](#), [21](#), [23](#), [25](#), [26](#), [29](#),  
[30](#), [32](#), [34](#), [35](#), [38](#), [39](#), [41](#), [43](#), [44](#), [47](#), [49](#), [51](#),  
[52](#), [55](#), [56](#), [58](#), [60](#), [61](#), [64](#), [65](#), [67](#), [69](#), [70](#), [72](#),  
[73](#), [74](#), [76](#), [78](#), [79](#), [82](#), [83](#).  
*rule\_info\_:* [8](#), [10](#), [12](#), [16](#), [17](#), [19](#), [20](#), [21](#), [23](#), [25](#), [26](#),  
[28](#), [29](#), [30](#), [32](#), [34](#), [35](#), [37](#), [38](#), [39](#), [41](#), [43](#), [44](#), [46](#),  
[47](#), [49](#), [51](#), [52](#), [54](#), [55](#), [56](#), [58](#), [60](#), [61](#), [63](#), [64](#), [65](#),  
[67](#), [69](#), [70](#), [72](#), [73](#), [74](#), [76](#), [78](#), [79](#), [81](#), [82](#), [83](#).  
*set\_auto\_delete:* [16](#), [25](#), [29](#), [34](#), [38](#), [43](#), [51](#), [60](#),  
[69](#), [78](#).  
*set\_rc:* [5](#), [10](#), [12](#), [16](#), [17](#), [21](#), [23](#), [25](#), [26](#), [29](#), [30](#), [32](#),  
[34](#), [35](#), [38](#), [39](#), [41](#), [43](#), [44](#), [49](#), [51](#), [52](#), [56](#), [58](#), [60](#),  
[61](#), [65](#), [67](#), [69](#), [70](#), [72](#), [74](#), [76](#), [78](#), [79](#), [83](#).  
*set\_stop\_parse:* [10](#), [12](#), [16](#), [17](#), [20](#), [21](#), [23](#), [25](#), [26](#),  
[29](#), [30](#), [32](#), [34](#), [35](#), [38](#), [39](#), [41](#), [43](#), [44](#), [47](#), [49](#),  
[51](#), [52](#), [55](#), [56](#), [58](#), [60](#), [61](#), [64](#), [65](#), [67](#), [69](#), [70](#),  
[72](#), [73](#), [74](#), [76](#), [78](#), [79](#), [82](#), [83](#).  
*sf:* [16](#), [19](#), [20](#), [25](#), [28](#), [29](#), [34](#), [37](#), [38](#), [43](#), [46](#), [47](#),  
[51](#), [54](#), [55](#), [60](#), [63](#), [64](#), [69](#), [72](#), [73](#), [78](#), [81](#), [82](#).  
*start\_token\_:* [5](#), [23](#).  
*std:* [72](#).  
*string:* [72](#).  
*sym:* [10](#), [12](#), [16](#), [17](#), [21](#), [23](#), [25](#), [26](#), [29](#), [30](#), [32](#), [34](#),  
[35](#), [38](#), [39](#), [41](#), [43](#), [44](#), [49](#), [51](#), [52](#), [56](#), [58](#), [60](#), [61](#),  
[65](#), [67](#), [69](#), [70](#), [72](#), [74](#), [76](#), [78](#), [79](#), [83](#).  
*T\_fsm\_phrase:* [5](#), [6](#).  
*true:* [10](#), [12](#), [16](#), [17](#), [20](#), [21](#), [23](#), [25](#), [26](#), [29](#), [30](#),  
[32](#), [34](#), [35](#), [38](#), [39](#), [41](#), [43](#), [44](#), [47](#), [49](#), [51](#), [52](#),  
[55](#), [56](#), [58](#), [60](#), [61](#), [64](#), [65](#), [67](#), [69](#), [70](#), [72](#), [73](#),  
[74](#), [76](#), [78](#), [79](#), [82](#), [83](#).  
*version:* [54](#).

< C fsm\_phrase.th constructor directive 4 >  
< C fsm\_phrase.th op directive 5 >  
< C fsm\_phrase.th user-declaration directive 6 >  
< C fsm\_phrase.th user-prefix-declaration directive 7 >  
< R close\_par subrule 1 op directive 12 >  
< R fsm\_class subrule 2 op directive 43 >  
< R fsm\_class subrule 3 op directive 44 >  
< R fsm\_class\_name subrule 1 op directive 46 >  
< R fsm\_class\_name subrule 2 op directive 47 >  
< R fsm\_class\_phrase subrule 2 op directive 41 >  
< R fsm\_comments subrule 2 op directive 78 >  
< R fsm\_comments subrule 3 op directive 79 >  
< R fsm\_comments\_phrase subrule 2 op directive 76 >  
< R fsm\_comments\_string subrule 1 op directive 81 >  
< R fsm\_comments\_string subrule 2 op directive 82 >  
< R fsm\_comments\_string subrule 3 op directive 83 >  
< R fsm\_date subrule 2 op directive 60 >  
< R fsm\_date subrule 3 op directive 61 >  
< R fsm\_date\_phrase subrule 2 op directive 58 >  
< R fsm\_date\_string subrule 1 op directive 63 >  
< R fsm\_date\_string subrule 2 op directive 64 >  
< R fsm\_date\_string subrule 3 op directive 65 >  
< R fsm\_debug subrule 2 op directive 69 >  
< R fsm\_debug subrule 3 op directive 70 >  
< R fsm\_debug\_phrase subrule 2 op directive 67 >  
< R fsm\_debug\_string subrule 1 op directive 72 >  
< R fsm\_debug\_string subrule 2 op directive 73 >  
< R fsm\_debug\_string subrule 3 op directive 74 >  
< R fsm\_filename subrule 2 op directive 25 >  
< R fsm\_filename subrule 3 op directive 26 >  
< R fsm\_filename\_name subrule 1 op directive 28 >  
< R fsm\_filename\_name subrule 2 op directive 29 >  
< R fsm\_filename\_name subrule 3 op directive 30 >  
< R fsm\_filename\_phrase subrule 2 op directive 23 >  
< R fsm\_id subrule 2 op directive 16 >  
< R fsm\_id subrule 3 op directive 17 >  
< R fsm\_id\_name subrule 1 op directive 19 >  
< R fsm\_id\_name subrule 2 op directive 20 >  
< R fsm\_id\_name subrule 3 op directive 21 >  
< R fsm\_namespace subrule 2 op directive 34 >  
< R fsm\_namespace subrule 3 op directive 35 >  
< R fsm\_namespace\_name subrule 1 op directive 37 >  
< R fsm\_namespace\_name subrule 2 op directive 38 >  
< R fsm\_namespace\_name subrule 3 op directive 39 >  
< R fsm\_namespace\_phrase subrule 2 op directive 32 >  
< R fsm\_phrase subrule 1 op directive 8 >  
< R fsm\_version subrule 2 op directive 51 >  
< R fsm\_version subrule 3 op directive 52 >  
< R fsm\_version\_phrase subrule 2 op directive 49 >  
< R fsm\_version\_string subrule 1 op directive 54 >  
< R fsm\_version\_string subrule 2 op directive 55 >  
< R fsm\_version\_string subrule 3 op directive 56 >

⟨ Ropen\_par subrule 1 op directive 10 ⟩

fsm\_phrase\_th Grammar

Date: January 2, 2015 at 15:36

File: fsm\_phrase\_th.lex           Ns: NS\_fsm\_phrase\_th

Version: 1.0                        Debug: false

Grammar Comments:                 Type: Thread

Parse grammar's fsm phrase along with its directives.

1 element(s) in Lookahead Expression below

eolr

<i>fsm_phrase.th</i> <b>Thread</b> .....	2	2
Fsm C fsm_phrase.th class .....	3	2
C fsm_phrase.th constructor directive .....	4	2
C fsm_phrase.th op directive .....	5	2
C fsm_phrase.th user-declaration directive .....	6	2
C fsm_phrase.th user-prefix-declaration directive .....	7	2
R fsm_phrase rule .....	8	3
R open_par rule .....	9	3
R open_par's subrule 1 .....	10	3
R close_par rule .....	11	3
R close_par's subrule 1 .....	12	3
R parameters rule .....	13	4
R fsm_id_phrase rule .....	14	4
R fsm_id rule .....	15	4
R fsm_id's subrule 2 .....	16	4
R fsm_id's subrule 3 .....	17	4
R fsm_id_name rule .....	18	5
R fsm_id_name's subrule 1 .....	19	5
R fsm_id_name's subrule 2 .....	20	5
R fsm_id_name's subrule 3 .....	21	5
R fsm_filename_phrase rule .....	22	5
R fsm_filename_phrase's subrule 2 .....	23	6
R fsm_filename rule .....	24	6
R fsm_filename's subrule 2 .....	25	6
R fsm_filename's subrule 3 .....	26	6
R fsm_filename_name rule .....	27	6
R fsm_filename_name's subrule 1 .....	28	7
R fsm_filename_name's subrule 2 .....	29	7
R fsm_filename_name's subrule 3 .....	30	7
R fsm_namespace_phrase rule .....	31	7
R fsm_namespace_phrase's subrule 2 .....	32	7
R fsm_namespace rule .....	33	8
R fsm_namespace's subrule 2 .....	34	8
R fsm_namespace's subrule 3 .....	35	8
R fsm_namespace_name rule .....	36	8
R fsm_namespace_name's subrule 1 .....	37	8
R fsm_namespace_name's subrule 2 .....	38	9
R fsm_namespace_name's subrule 3 .....	39	9
R fsm_class_phrase rule .....	40	9
R fsm_class_phrase's subrule 2 .....	41	9
R fsm_class rule .....	42	9
R fsm_class's subrule 2 .....	43	10
R fsm_class's subrule 3 .....	44	10
R fsm_class_name rule .....	45	10
R fsm_class_name's subrule 1 .....	46	10
R fsm_class_name's subrule 2 .....	47	10
R fsm_version_phrase rule .....	48	10
R fsm_version_phrase's subrule 2 .....	49	11
R fsm_version rule .....	50	11
R fsm_version's subrule 2 .....	51	11
R fsm_version's subrule 3 .....	52	11
R fsm_version_string rule .....	53	11

<i>Rfsm_version_string</i> 's subrule 1 .....	54	12
<i>Rfsm_version_string</i> 's subrule 2 .....	55	12
<i>Rfsm_version_string</i> 's subrule 3 .....	56	12
<i>Rfsm_date_phrase</i> rule .....	57	12
<i>Rfsm_date_phrase</i> 's subrule 2 .....	58	12
<i>Rfsm_date</i> rule .....	59	13
<i>Rfsm_date</i> 's subrule 2 .....	60	13
<i>Rfsm_date</i> 's subrule 3 .....	61	13
<i>Rfsm_date_string</i> rule .....	62	13
<i>Rfsm_date_string</i> 's subrule 1 .....	63	13
<i>Rfsm_date_string</i> 's subrule 2 .....	64	14
<i>Rfsm_date_string</i> 's subrule 3 .....	65	14
<i>Rfsm_debug_phrase</i> rule .....	66	14
<i>Rfsm_debug_phrase</i> 's subrule 2 .....	67	14
<i>Rfsm_debug</i> rule .....	68	14
<i>Rfsm_debug</i> 's subrule 2 .....	69	15
<i>Rfsm_debug</i> 's subrule 3 .....	70	15
<i>Rfsm_debug_string</i> rule .....	71	15
<i>Rfsm_debug_string</i> 's subrule 1 .....	72	16
<i>Rfsm_debug_string</i> 's subrule 2 .....	73	16
<i>Rfsm_debug_string</i> 's subrule 3 .....	74	16
<i>Rfsm_comments_phrase</i> rule .....	75	16
<i>Rfsm_comments_phrase</i> 's subrule 2 .....	76	17
<i>Rfsm_comments</i> rule .....	77	17
<i>Rfsm_comments</i> 's subrule 2 .....	78	17
<i>Rfsm_comments</i> 's subrule 3 .....	79	17
<i>Rfsm_comments_string</i> rule .....	80	17
<i>Rfsm_comments_string</i> 's subrule 1 .....	81	18
<i>Rfsm_comments_string</i> 's subrule 2 .....	82	18
<i>Rfsm_comments_string</i> 's subrule 3 .....	83	18
<i>Rlint</i> rule .....	84	18
<i>Rlint_epi</i> rule .....	85	18
<b>First Set Language for <math>O_2^{linker}</math></b> .....	86	19
<b>Lr1 State Network</b> .....	87	20
<b>Index</b> .....	88	34