

**1. Copyright.**

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**2. *err\_symbols\_ph\_th* Thread.**

Parse the error terminal definitions. As all terminal vocabulary symbols have the same source template, *TH\_term\_def\_ph* is used to parse individually each symbol.

Example of an error vocabulary to parse:

```

/*
file: errsym.txt
Why: error symbols vocabulary to parse.
Note:
error-symbols is shown for clarity.
It is the keyword trigger that calls this grammar.
Parsed is comments onwards.
*/
error-symbols
// comments
(file-name          yacco2_err_symbols
,name-space         NS_yacco2_err_symbols)
{
"nested files exceeded"
(sym-class          Err_nested_files_excded {
user-declaration
public:
Err_nested_files_excded(yacco2::INT Nested_file_cnt,std::string& File_name);
yacco2::INT nested_cnt(){return nested_cnt_;};
std::string* file_exceeded(){return &file_exceeded_;};
private:
yacco2::INT nested_cnt_;
std::string file_exceeded_;
***
user-implementation
Err_nested_files_excded:
Err_nested_files_excded(yacco2::INT Nested_cnt,std::string& File_name)
T_CTOR("nested files excded",T_Enum::T_Err_nested_files_excded_,0,false,false)
{nested_cnt_ = Nested_cnt;file_exceeded_ += File_name.c_str();}
***
}
)
"no end-of-code" (sym-class          Err_no_end_of_code)
"no cmd-lne-data" (sym-class          Err_no_cmd_lne_data)
"no filename"    (sym-class          Err_no_filename)
...
}

```

**3. Fsm Cerr\_symbols\_ph\_th class.****4. Cerr\_symbols\_ph\_th constructor directive.**

<Cerr\_symbols\_ph\_th constructor directive 4> ≡  
*error\_symbols\_phrase\_* = 0;

**5. Cerr\_symbols\_ph.th op directive.**

```

< Cerr_symbols_ph.th op directive 5 > ≡
  if (error_symbols_phrase_ ≠ 0) {
    delete error_symbols_phrase_;
    error_symbols_phrase_ = 0;
  }
  error_symbols_phrase_ = new T_error_symbols_phrase;
  error_symbols_phrase_→set_rc(*parser_→start_token_, __FILE__, __LINE__);
  AST *t = new AST(*error_symbols_phrase_);
  error_symbols_phrase_→phrase_tree(t);
    
```

**6. Cerr\_symbols\_ph.th user-declaration directive.**

```

< Cerr_symbols_ph.th user-declaration directive 6 > ≡
public: T_error_symbols_phrase * error_symbols_phrase_;
    
```

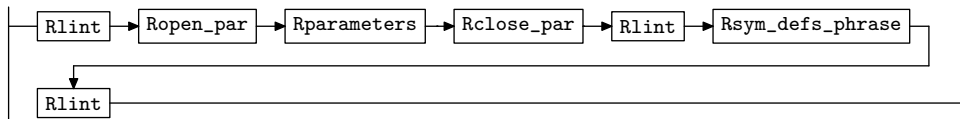
**7. Cerr\_symbols\_ph.th user-prefix-declaration directive.**

```

< Cerr_symbols_ph.th user-prefix-declaration directive 7 > ≡
  using namespace NS_yacco2_terminals;
  #include "lint_balls.h"
  #include "identifier.h"
  #include "term_def_ph.h"
  #include "c_string.h"
    
```

**8. Rerror\_symbols\_phrase rule.**

Rerror\_symbols\_phrase

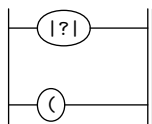


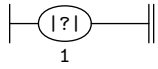
```

< Rerror_symbols_phrase subrule 1 op directive 8 > ≡
  Cerr_symbols_ph.th * fsm = ( Cerr_symbols_ph.th * ) rule_info_→parser_→fsm_tbl_;
  RSVP(fsm→error_symbols_phrase_);
  fsm→error_symbols_phrase_ = 0;
    
```

**9. Ropen\_par rule.**

Ropen\_par

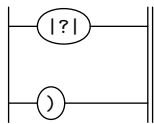
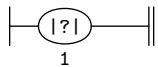


10. *Ropen\_par*'s subrule 1.

⟨*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.

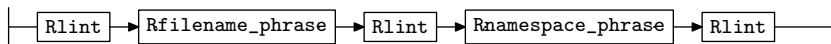
*Rclose\_par*

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

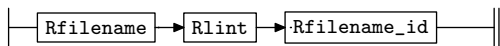
⟨*Rclose\_par* subrule 1 op directive 12⟩ ≡  
`CAbs_lr1_sym * sym = new Err_no_close_parenthesis;`  
`sym->set_rc(*rule_info_.parser->current_token(), __FILE__, __LINE__);`  
`RSVP(sym);`  
`rule_info_.parser->set_stop_parse(true);`

13. *Rparameters* rule.

*Rparameters*

14. *Rfilename\_phrase* rule.

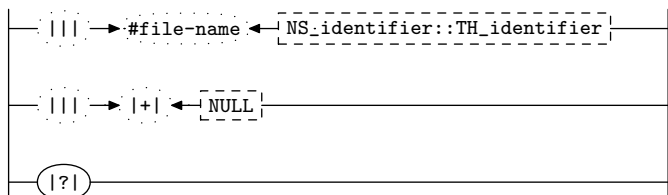
*Rfilename\_phrase*

15. *Rfilename\_phrase* user-declaration directive.

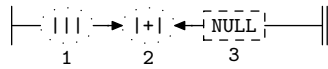
⟨*Rfilename\_phrase* user-declaration directive 15⟩ ≡  
`public: T_file_name * filename_;`

16. *Rfilename* rule.

*Rfilename*

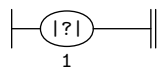


**17. Rfilename's subrule 2.**



⟨Rfilename subrule 2 op directive 17⟩ ≡  
*sf*→*p2*--*set\_auto\_delete*(*true*);  
*CAbs\_lr1\_sym* \* *sym* = **new** *Err\_no\_filename\_present*;  
*sym*→*set\_rc*(\**sf*→*p2*--, \_\_FILE\_\_, \_\_LINE\_\_);  
*RSVP*(*sym*);  
*rule\_info*...*parser*--*set\_stop\_parse*(*true*);

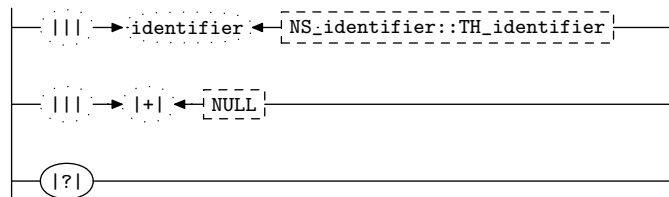
**18. Rfilename's subrule 3.**



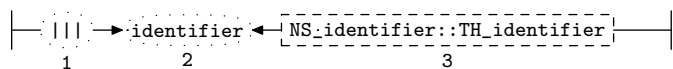
⟨Rfilename subrule 3 op directive 18⟩ ≡  
*CAbs\_lr1\_sym* \* *sym* = **new** *Err\_no\_filename\_present*;  
*sym*→*set\_rc*(\**rule\_info*...*parser*--*current\_token*( ), \_\_FILE\_\_, \_\_LINE\_\_);  
*RSVP*(*sym*);  
*rule\_info*...*parser*--*set\_stop\_parse*(*true*);

**19. Rfilename\_id rule.**

Rfilename\_id

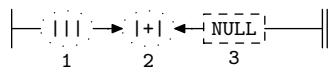


**20. Rfilename\_id's subrule 1.**

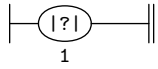


⟨Rfilename\_id subrule 1 op directive 20⟩ ≡  
*Cerr\_symbols\_ph\_th* \* *fsm* = ( *Cerr\_symbols\_ph\_th* \* ) *rule\_info*...*parser*--*fsm\_tbl*...;  
*fsm*→*error\_symbols\_phrase\_filename\_id*(*sf*→*p2*--);

**21. Rfilename\_id's subrule 2.**



⟨Rfilename\_id subrule 2 op directive 21⟩ ≡  
*sf*→*p2*--*set\_auto\_delete*(*true*);  
*CAbs\_lr1\_sym* \* *sym* = **new** *Err\_no\_filename\_id\_present*;  
*sym*→*set\_rc*(\**sf*→*p2*--, \_\_FILE\_\_, \_\_LINE\_\_);  
*RSVP*(*sym*);  
*rule\_info*...*parser*--*set\_stop\_parse*(*true*);

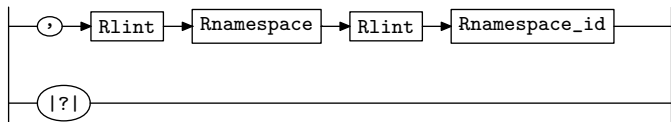
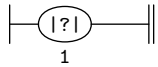
**22. *Rfilename\_id*'s subrule 3.**

⟨*Rfilename\_id* subrule 3 op directive 22⟩ ≡

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

**23. *Rnamespace\_phrase* rule.**

*Rnamespace\_phrase*

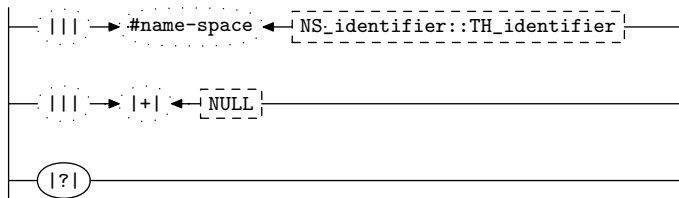
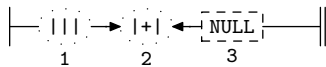
**24. *Rnamespace\_phrase*'s subrule 2.**

⟨*Rnamespace\_phrase* subrule 2 op directive 24⟩ ≡

```
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);
```

**25. *Rnamespace* rule.**

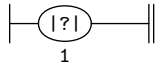
*Rnamespace*

**26. *Rnamespace*'s subrule 2.**

⟨*Rnamespace* subrule 2 op directive 26⟩ ≡

```
sf-p2->set_auto_delete(true);
CAbs_lr1_sym * sym = new Err_no_namespace_present;
sym->set_rc(*sf-p2--, __FILE__, __LINE__);
RSVP(sym);
rule_info_.parser->set_stop_parse(true);
```

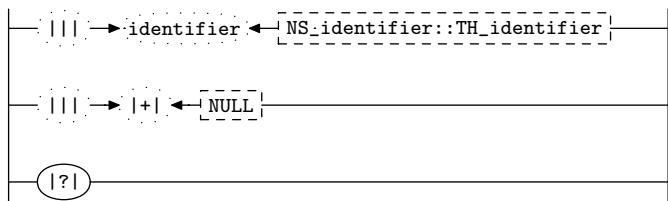
**27. Rnamespace's subrule 3.**



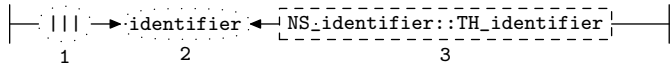
$\langle$  Rnamespace subrule 3 op directive 27  $\rangle \equiv$   
`CAbs_lr1_sym * sym = new Err_no_namespace_present;`  
`sym->set_rc(*rule_info...parser->current_token(), __FILE__, __LINE__);`  
`RSVP(sym);`  
`rule_info...parser->set_stop_parse(true);`

**28. Rnamespace\_id rule.**

Rnamespace\_id

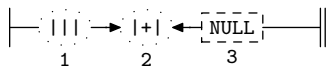


**29. Rnamespace\_id's subrule 1.**



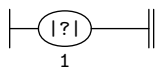
$\langle$  Rnamespace\_id subrule 1 op directive 29  $\rangle \equiv$   
`Cerr_symbols_ph.th * fsm = ( Cerr_symbols_ph.th * ) rule_info...parser->fsm_tbl_;`  
`fsm->error_symbols_phrase->namespace_id(sf-p2_);`

**30. Rnamespace\_id's subrule 2.**

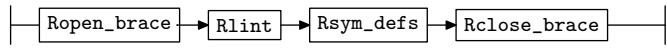
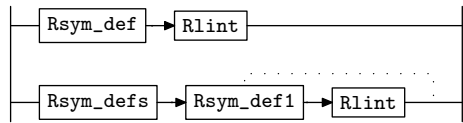


$\langle$  Rnamespace\_id subrule 2 op directive 30  $\rangle \equiv$   
`sf-p2->set_auto_delete(true);`  
`CAbs_lr1_sym * sym = new Err_no_namespace_id_present;`  
`sym->set_rc(*sf-p2_, __FILE__, __LINE__);`  
`RSVP(sym);`  
`rule_info...parser->set_stop_parse(true);`

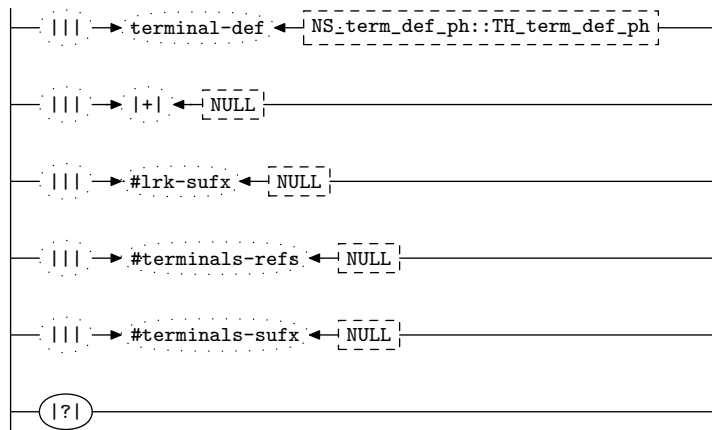
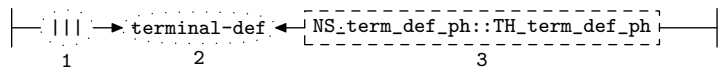
**31. Rnamespace\_id's subrule 3.**



$\langle$  Rnamespace\_id subrule 3 op directive 31  $\rangle \equiv$   
`CAbs_lr1_sym * sym = new Err_no_namespace_id_present;`  
`sym->set_rc(*rule_info...parser->current_token(), __FILE__, __LINE__);`  
`RSVP(sym);`  
`rule_info...parser->set_stop_parse(true);`

**32. *Rsym\_defs\_phrase* rule.***Rsym\_defs\_phrase***33. *Rsym\_defs* rule.***Rsym\_defs***34. *Rsym\_def* rule.**

Note: trapped explicitly are directives that are improper within this context.

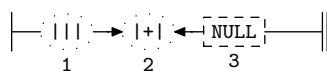
*Rsym\_def***35. *Rsym\_def*'s subrule 1.**

⟨*Rsym\_def* subrule 1 op directive 35⟩ ≡

```

Cerr_symbols_ph_th * fsm = ( Cerr_symbols_ph_th * ) rule_info...parser...fsm.tbl_;
sf-p2...classification( Tterminal_def :: err);
CAbs_lr1_sym * r = fsm->error_symbols_phrase->add_t_to_alphabet(sf-p2..., rule_info...parser...);
if (r ≡ 0) return;
RSVP(r);
rule_info...parser...set_stop_parse(true);

```

**36. *Rsym\_def*'s subrule 2.**

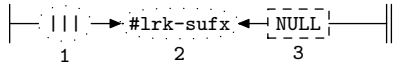
⟨*Rsym\_def* subrule 2 op directive 36⟩ ≡

```

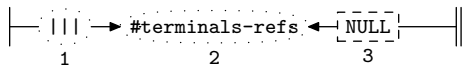
RSVP(sf-p2...);
rule_info...parser...set_stop_parse(true);

```

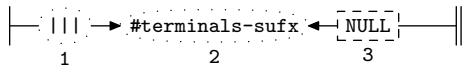


**37. Rsym\_def's subrule 3.**

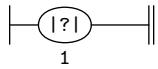
⟨Rsym\_def subrule 3 op directive 37⟩ ≡  
*sf*-p2--set\_auto\_delete(true);  
*CAbs\_lr1\_sym* \* *sym* = new *Err\_improper\_directive*;  
*sym*-set\_rc(\**sf*-p2--, \_\_FILE\_\_, \_\_LINE\_\_);  
 RSVP(*sym*);  
*rule\_info*...parser--set\_stop\_parse(true);

**38. Rsym\_def's subrule 4.**

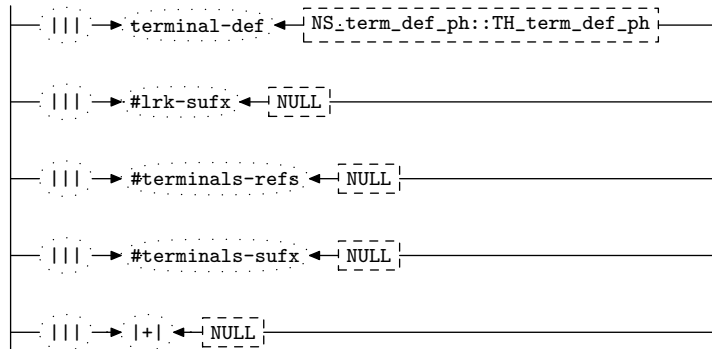
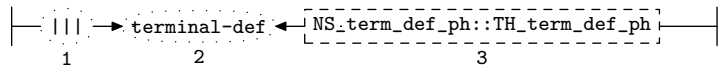
⟨Rsym\_def subrule 4 op directive 38⟩ ≡  
*sf*-p2--set\_auto\_delete(true);  
*CAbs\_lr1\_sym* \* *sym* = new *Err\_improper\_directive*;  
*sym*-set\_rc(\**sf*-p2--, \_\_FILE\_\_, \_\_LINE\_\_);  
 RSVP(*sym*);  
*rule\_info*...parser--set\_stop\_parse(true);

**39. Rsym\_def's subrule 5.**

⟨Rsym\_def subrule 5 op directive 39⟩ ≡  
*sf*-p2--set\_auto\_delete(true);  
*CAbs\_lr1\_sym* \* *sym* = new *Err\_improper\_directive*;  
*sym*-set\_rc(\**sf*-p2--, \_\_FILE\_\_, \_\_LINE\_\_);  
 RSVP(*sym*);  
*rule\_info*...parser--set\_stop\_parse(true);

**40. Rsym\_def's subrule 6.**

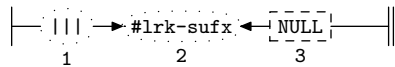
⟨Rsym\_def subrule 6 op directive 40⟩ ≡  
*CAbs\_lr1\_sym* \* *sym* = new *Err\_no\_sym\_defs\_present*;  
*sym*-set\_rc(\**rule\_info*...parser--current\_token(), \_\_FILE\_\_, \_\_LINE\_\_);  
 RSVP(*sym*);  
*rule\_info*...parser--set\_stop\_parse(true);

41. *Rsym\_def1* rule.*Rsym\_def1*42. *Rsym\_def1*'s subrule 1. $\langle \text{Rsym\_def1 subrule 1 op directive 42} \rangle \equiv$ 

```

Cerr_symbols_ph_th * fsm = ( Cerr_symbols_ph_th * ) rule_info__parser__fsm_tbl__;
sf-p2__classification(T_terminal_def :: err);
CAbs_lr1_sym * r = fsm-error_symbols_phrase-add_t_to_alphabet(sf-p2__, rule_info__parser__);
if (r  $\equiv$  0) return;
RSVP(r);
rule_info__parser__set_stop_parse(true);

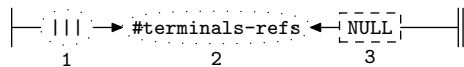
```

43. *Rsym\_def1*'s subrule 2. $\langle \text{Rsym\_def1 subrule 2 op directive 43} \rangle \equiv$ 

```

sf-p2__set_auto_delete(true);
CAbs_lr1_sym * sym = new Err_improper_directive;
sym-set_rc(*sf-p2__, __FILE__, __LINE__);
RSVP(sym);
rule_info__parser__set_stop_parse(true);

```

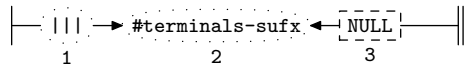
44. *Rsym\_def1*'s subrule 3. $\langle \text{Rsym\_def1 subrule 3 op directive 44} \rangle \equiv$ 

```

sf-p2__set_auto_delete(true);
CAbs_lr1_sym * sym = new Err_improper_directive;
sym-set_rc(*sf-p2__, __FILE__, __LINE__);
RSVP(sym);
rule_info__parser__set_stop_parse(true);

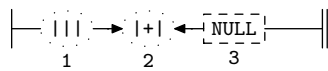
```

45. *Rsym\_def1*'s subrule 4.



$\langle$  Rsym\_def1 subrule 4 op directive 45  $\rangle \equiv$   
`sf-p2--set_auto_delete(true);`  
`CAbs_lr1_sym * sym = new Err_improper_directive;`  
`sym->set_rc(*sf-p2--, __FILE__, __LINE__);`  
`RSVP(sym);`  
`rule_info...parser--set_stop_parse(true);`

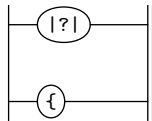
46. *Rsym\_def1*'s subrule 5.



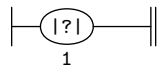
$\langle$  Rsym\_def1 subrule 5 op directive 46  $\rangle \equiv$   
`RSVP(sf-p2--);`  
`rule_info...parser--set_stop_parse(true);`

47. *Ropen\_brace* rule.

Ropen\_brace



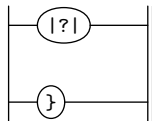
48. *Ropen\_brace*'s subrule 1.

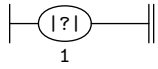


$\langle$  Ropen\_brace subrule 1 op directive 48  $\rangle \equiv$   
`CAbs_lr1_sym * sym = new Err_no_open_brace;`  
`sym->set_rc(*rule_info...parser--current_token(), __FILE__, __LINE__);`  
`RSVP(sym);`  
`rule_info...parser--set_stop_parse(true);`

49. *Rclose\_brace* rule.

Rclose\_brace



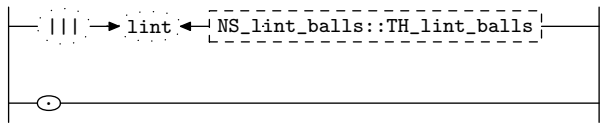
**50.** *Rclose\_brace*'s subrule 1.

⟨*Rclose\_brace* subrule 1 op directive 50⟩ ≡

```
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);
```

**51.** *Rlint* rule.

**Rlint**



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

```
/*
  File: err_symbols_ph_th.fsc
  Date and Time: Fri Jan  2 15:33:34 2015
*/
transitive      y
grammar-name    "err_symbols_ph_th"
name-space     "NS_err_symbols_ph_th"
thread-name    "TH_err_symbols_ph_th"
monolithic     n
file-name      "err_symbols_ph_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 3
  NS_identifier::TH_identifier
  NS_lint_balls::TH_lint_balls
  NS_term_def_ph::TH_term_def_ph
end-list-of-used-threads
fsm-comments
"Parse Error vocabulary."
```

**53. 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		17 2 1		$\epsilon$		1 0 1 1	
c	Rlint		17 1 1		lint NS_lint_balls::TH_lint_balls		1 2 3	
c	Rerror_symbols_phrase		1 1 1		Rlint <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		17 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		17 1 3				1 0 3 1	
$\Rightarrow$	Rlint				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 25 25	
c	Ropen_par		2 2 1		(		4 26 26	
t	Rerror_symbols_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		17 2 1		$\epsilon$		5 0 5 2	
c	Rlint		17 1 1		lint NS_lint_balls::TH_lint_balls		5 2 3	
t	Rerror_symbols_phrase		1 1 3		Rparameters <u>Rclose_par</u>		1 6 12	
c	Rparameters		4 1 1		Rlint <u>Rfilename_phrase</u>		5 27 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 42 42	
c	Rclose_par		3 2 1		)		6 43 43	
t	Rerror_symbols_phrase		1 1 4		Rclose_par <u>Rlint<sup>c</sup> Rsym_defs_phrase</u>		1 7 12	
$\Rightarrow$	Rclose_par				State: 7 state type: $s/r$			
$\leftarrow$	rule	$\rightarrow$	R# sr# Po	$\leftarrow$	subrule element	$\rightarrow$	Brn Gto Red LA	
c	Rlint		17 2 1		$\epsilon$		7 0 7 3	
c	Rlint		17 1 1		lint NS_lint_balls::TH_lint_balls		7 2 3	
t	Rerror_symbols_phrase		1 1 5		Rlint <u>Rsym_defs_phrase</u>		1 8 12	
$\Rightarrow$	Rlint				State: 8 state type: $s$			
$\leftarrow$	rule	$\rightarrow$	R# sr# Po	$\leftarrow$	subrule element	$\rightarrow$	Brn Gto Red LA	
c	Ropen_brace		15 1 1		?		8 9 9	
c	Ropen_brace		15 2 1		{		8 10 10	
t	Rerror_symbols_phrase		1 1 6		Rsym_defs_phrase <u>Rlint<sup>c</sup></u>		1 11 12	
c	Rsym_defs_phrase		11 1 1		Ropen_brace <u>Rlint<sup>c</sup> Rsym_defs</u>		8 13 24	
$\Rightarrow$	?				State: 9 state type: $r$			
$\leftarrow$	rule	$\rightarrow$	R# sr# Po	$\leftarrow$	subrule element	$\rightarrow$	Brn Gto Red LA	
t	Ropen_brace		15 1 2				8 0 9 2	

$\Rightarrow$	{					State: 10 state type: $r$							
	←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
	t	Ropen_brace		15	2	2				8	0	10	2
$\Rightarrow$	<i>Rsym_defs_phrase</i>							State: 11 state type: $s/r$					
	←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
	c	Rlint		17	2	1	←	$\epsilon$		11	0	11	1
	c	Rlint		17	1	1		lint NS_lint_balls::TH_lint_balls		11	2	3	
	t	Rerror_symbols_phrase		1	1	7	Rlint			1	12	12	
$\Rightarrow$	<i>Rlint</i>							State: 12 state type: $r$					
	←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
	t	Rerror_symbols_phrase		1	1	8				1	0	12	1
$\Rightarrow$	<i>Ropen_brace</i>							State: 13 state type: $s/r$					
	←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
	c	Rlint		17	2	1	←	$\epsilon$		13	0	13	2
	c	Rlint		17	1	1		lint NS_lint_balls::TH_lint_balls		13	2	3	
	t	Rsym_defs_phrase		11	1	2	Rlint	<u><i>Rsym_defs</i></u>		8	14	24	
$\Rightarrow$	<i>Rlint</i>							State: 14 state type: $s$					
	←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
	c	Rsym_def		13	6	1	?			14	44	44	
	c	Rsym_def		13	1	1		terminal-def NS_term_def_ph::TH_term_def_ph		14	45	50	
	c	Rsym_def		13	2	1		+  NULL		14	45	46	
	c	Rsym_def		13	3	1		# lrk-suffix NULL		14	45	49	
	c	Rsym_def		13	4	1		# terminals-refs NULL		14	45	47	
	c	Rsym_def		13	5	1		# terminals-suffix NULL		14	45	48	
	c	Rsym_defs		12	2	1	Rsym_defs	<u><i>Rsym_def1</i></u>		14	15	52	
	t	Rsym_defs_phrase		11	1	3	Rsym_defs	<u><i>Rclose_brace</i></u>		8	15	24	
	c	Rsym_defs		12	1	1	Rsym_def	<u><i>Rlint<math>\epsilon</math></i></u>		14	53	54	
$\Rightarrow$	<i>Rsym_defs</i>							State: 15 state type: $s$					
	←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
	c	Rclose_brace		16	1	1	?			15	16	16	
	c	Rsym_def1		14	1	1		terminal-def NS_term_def_ph::TH_term_def_ph		15	17	22	
	c	Rsym_def1		14	5	1		+  NULL		15	17	18	
	c	Rsym_def1		14	3	1		# terminals-refs NULL		15	17	19	
	c	Rsym_def1		14	2	1		# lrk-suffix NULL		15	17	21	
	c	Rsym_def1		14	4	1		# terminals-suffix NULL		15	17	20	
	c	Rclose_brace		16	2	1	}			15	23	23	
	t	Rsym_defs		12	2	2	Rsym_def1	<u><i>Rlint<math>\epsilon</math></i></u>		14	51	52	
	t	Rsym_defs_phrase		11	1	4	Rclose_brace			8	24	24	
$\Rightarrow$	?							State: 16 state type: $r$					
	←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
	t	Rclose_brace		16	1	2				15	0	16	1
$\Rightarrow$	<i>arbitration-code: <math>\epsilon</math></i>							State: 17 state type: $s$					
	←	rule	→	R#	sr#	Po	←	subrule element	→	Brn	Gto	Red	LA
	t	Rsym_def1		14	5	2	+			15	18	18	

t Rsym.def1	14	3	2	# terminals-refs	15	19	19
t Rsym.def1	14	4	2	# terminals-suffix	15	20	20
t Rsym.def1	14	2	2	# lrk-suffix	15	21	21
t Rsym.def1	14	1	2	terminal-def	15	22	22
⇒ +							
← rule	→ R#	sr#	Po	←	subrule element	→ Brn	Gto Red LA
t Rsym.def1	14	5	3			15	0 18 4
⇒#terminals-refs							
← rule	→ R#	sr#	Po	←	subrule element	→ Brn	Gto Red LA
t Rsym.def1	14	3	3			15	0 19 4
⇒#terminals-suffix							
← rule	→ R#	sr#	Po	←	subrule element	→ Brn	Gto Red LA
t Rsym.def1	14	4	3			15	0 20 4
⇒#lrk-suffix							
← rule	→ R#	sr#	Po	←	subrule element	→ Brn	Gto Red LA
t Rsym.def1	14	2	3			15	0 21 4
⇒terminal-def							
← rule	→ R#	sr#	Po	←	subrule element	→ Brn	Gto Red LA
t Rsym.def1	14	1	3			15	0 22 4
⇒}							
← rule	→ R#	sr#	Po	←	subrule element	→ Brn	Gto Red LA
t Rclose_brace	16	2	2			15	0 23 1
⇒Rclose_brace							
← rule	→ R#	sr#	Po	←	subrule element	→ Brn	Gto Red LA
t Rsym.defs_phrase	11	1	5			8	0 24 1
⇒ ?							
← rule	→ R#	sr#	Po	←	subrule element	→ Brn	Gto Red LA
t Ropen_par	2	1	2			4	0 25 2
⇒(							
← rule	→ R#	sr#	Po	←	subrule element	→ Brn	Gto Red LA
t Ropen_par	2	2	2			4	0 26 2
⇒Rlint							
← rule	→ R#	sr#	Po	←	subrule element	→ Brn	Gto Red LA
c Rfilename	6	3	1	?		27	55 55
c Rfilename	6	2	1	+  NULL		27	56 57
c Rfilename	6	1	1	# file-name NS_identifier::TH_identifier		27	56 58
t Rparameters	4	1	2	Rfilename_phrase <u>Rlint<sup>ε</sup> Rnamespace_phrase</u>		5	28 41
c Rfilename_phrase	5	1	1	Rfilename <u>Rlint<sup>ε</sup> Rfilename.id</u>		27	59 65
⇒Rfilename_phrase							
← rule	→ R#	sr#	Po	←	subrule element	→ Brn	Gto Red LA
c Rlint	17	2	1	ε		28	0 28 5



c Rlint	17	1	1	lint NS_lint_balls::TH_lint_balls	28	2	3	
t Rparameters	4	1	3	Rlint <u>Rnamespace_phrase</u>	5	29	41	
$\Rightarrow$ <i>Rlint</i>				State: 29 state type: <i>s</i>				
← rule	→ R#	sr#	Po	← subrule element	→ Brn	Gto	Red	LA
c Rnamespace_phrase	8	2	1	?	29	30	30	
c Rnamespace_phrase	8	1	1	,	29	31	39	
t Rparameters	4	1	4	Rnamespace_phrase <u>Rlint<sup>ε</sup></u>	5	40	41	
$\Rightarrow$ <i> ? </i>				State: 30 state type: <i>r</i>				
← rule	→ R#	sr#	Po	← subrule element	→ Brn	Gto	Red	LA
t Rnamespace_phrase	8	2	2		29	0	30	6
$\Rightarrow$ <i>,</i>				State: 31 state type: <i>s/r</i>				
← rule	→ R#	sr#	Po	← subrule element	→ Brn	Gto	Red	LA
c Rlint	17	2	1	ε	31	0	31	2
c Rlint	17	1	1	lint NS_lint_balls::TH_lint_balls	31	2	3	
t Rnamespace_phrase	8	1	2	Rlint <u>Rnamespace</u>	29	32	39	
$\Rightarrow$ <i>Rlint</i>				State: 32 state type: <i>s</i>				
← rule	→ R#	sr#	Po	← subrule element	→ Brn	Gto	Red	LA
c Rnamespace	9	3	1	?	32	66	66	
c Rnamespace	9	1	1	# name-space NS_identifier::TH_identifier	32	67	69	
c Rnamespace	9	2	1	+  NULL	32	67	68	
t Rnamespace_phrase	8	1	3	Rnamespace <u>Rlint<sup>ε</sup> Rnamespace_id</u>	29	33	39	
$\Rightarrow$ <i>Rnamespace</i>				State: 33 state type: <i>s/r</i>				
← rule	→ R#	sr#	Po	← subrule element	→ Brn	Gto	Red	LA
c Rlint	17	2	1	ε	33	0	33	2
c Rlint	17	1	1	lint NS_lint_balls::TH_lint_balls	33	2	3	
t Rnamespace_phrase	8	1	4	Rlint <u>Rnamespace_id</u>	29	34	39	
$\Rightarrow$ <i>Rlint</i>				State: 34 state type: <i>s</i>				
← rule	→ R#	sr#	Po	← subrule element	→ Brn	Gto	Red	LA
c Rnamespace_id	10	3	1	?	34	35	35	
c Rnamespace_id	10	1	1	identifier NS_identifier::TH_identifier	34	36	38	
c Rnamespace_id	10	2	1	+  NULL	34	36	37	
t Rnamespace_phrase	8	1	5	Rnamespace_id	29	39	39	
$\Rightarrow$ <i> ? </i>				State: 35 state type: <i>r</i>				
← rule	→ R#	sr#	Po	← subrule element	→ Brn	Gto	Red	LA
t Rnamespace_id	10	3	2		34	0	35	6
$\Rightarrow$ <i>    arbitration-code: ε</i>				State: 36 state type: <i>s</i>				
← rule	→ R#	sr#	Po	← subrule element	→ Brn	Gto	Red	LA
t Rnamespace_id	10	2	2	+	34	37	37	
t Rnamespace_id	10	1	2	identifier	34	38	38	
$\Rightarrow$ <i> + </i>				State: 37 state type: <i>r</i>				
← rule	→ R#	sr#	Po	← subrule element	→ Brn	Gto	Red	LA
t Rnamespace_id	10	2	3		34	0	37	6

$\Rightarrow$ <i>identifier</i>		State: 38 state type: <i>r</i>	
← rule	→ R# sr# Po ←	subrule element	→ Brn Gto Red LA
t Rnamespace_id	10 1 3		34 0 38 6
$\Rightarrow$ <i>Rnamespace_id</i>		State: 39 state type: <i>r</i>	
← rule	→ R# sr# Po ←	subrule element	→ Brn Gto Red LA
t Rnamespace_phrase	8 1 6		29 0 39 6
$\Rightarrow$ <i>Rnamespace_phrase</i>		State: 40 state type: <i>s/r</i>	
← rule	→ R# sr# Po ←	subrule element	→ Brn Gto Red LA
c Rlint	17 2 1 $\epsilon$		40 0 40 7
c Rlint	17 1 1     lint NS_lint_balls::TH_lint_balls		40 2 3
t Rparameters	4 1 5 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 6		5 0 41 7
$\Rightarrow$ <i> ? </i>		State: 42 state type: <i>r</i>	
← rule	→ R# sr# Po ←	subrule element	→ Brn Gto Red LA
t Rclose_par	3 1 2		6 0 42 8
$\Rightarrow$ <i>)</i>		State: 43 state type: <i>r</i>	
← rule	→ R# sr# Po ←	subrule element	→ Brn Gto Red LA
t Rclose_par	3 2 2		6 0 43 8
$\Rightarrow$ <i> ? </i>		State: 44 state type: <i>r</i>	
← rule	→ R# sr# Po ←	subrule element	→ Brn Gto Red LA
t Rsym_def	13 6 2		14 0 44 4
$\Rightarrow$ <i>    arbitration-code: <math>\epsilon</math></i>		State: 45 state type: <i>s</i>	
← rule	→ R# sr# Po ←	subrule element	→ Brn Gto Red LA
t Rsym_def	13 2 2  +		14 46 46
t Rsym_def	13 4 2 # terminals-refs		14 47 47
t Rsym_def	13 5 2 # terminals-sufx		14 48 48
t Rsym_def	13 3 2 # lrk-sufx		14 49 49
t Rsym_def	13 1 2 terminal-def		14 50 50
$\Rightarrow$ <i> + </i>		State: 46 state type: <i>r</i>	
← rule	→ R# sr# Po ←	subrule element	→ Brn Gto Red LA
t Rsym_def	13 2 3		14 0 46 4
$\Rightarrow$ <i>#terminals-refs</i>		State: 47 state type: <i>r</i>	
← rule	→ R# sr# Po ←	subrule element	→ Brn Gto Red LA
t Rsym_def	13 4 3		14 0 47 4
$\Rightarrow$ <i>#terminals-sufx</i>		State: 48 state type: <i>r</i>	
← rule	→ R# sr# Po ←	subrule element	→ Brn Gto Red LA
t Rsym_def	13 5 3		14 0 48 4
$\Rightarrow$ <i>#lrk-sufx</i>		State: 49 state type: <i>r</i>	

← rule	→ R# sr# Po ←	← subrule element	→ Brn Gto Red LA
t Rsym_def	13 3 3		14 0 49 4
⇒ <i>terminal-def</i> State: 50 state type: <i>r</i>			
← rule	→ R# sr# Po ←	← subrule element	→ Brn Gto Red LA
t Rsym_def	13 1 3		14 0 50 4
⇒ <i>Rsym_def1</i> State: 51 state type: <i>s/r</i>			
← rule	→ R# sr# Po ←	← subrule element	→ Brn Gto Red LA
c Rlint	17 2 1 ε		51 0 51 4
c Rlint	17 1 1     lint NS_lint_balls::TH_lint_balls		51 2 3
t Rsym_defs	12 2 3 Rlint		14 52 52
⇒ <i>Rlint</i> State: 52 state type: <i>r</i>			
← rule	→ R# sr# Po ←	← subrule element	→ Brn Gto Red LA
t Rsym_defs	12 2 4		14 0 52 4
⇒ <i>Rsym_def</i> State: 53 state type: <i>s/r</i>			
← rule	→ R# sr# Po ←	← subrule element	→ Brn Gto Red LA
c Rlint	17 2 1 ε		53 0 53 4
c Rlint	17 1 1     lint NS_lint_balls::TH_lint_balls		53 2 3
t Rsym_defs	12 1 2 Rlint		14 54 54
⇒ <i>Rlint</i> State: 54 state type: <i>r</i>			
← rule	→ R# sr# Po ←	← subrule element	→ Brn Gto Red LA
t Rsym_defs	12 1 3		14 0 54 4
⇒ <i> ? </i> State: 55 state type: <i>r</i>			
← rule	→ R# sr# Po ←	← subrule element	→ Brn Gto Red LA
t Rfilename	6 3 2		27 0 55 2
⇒ <i>    arbitration-code: ε</i> State: 56 state type: <i>s</i>			
← rule	→ R# sr# Po ←	← subrule element	→ Brn Gto Red LA
t Rfilename	6 2 2  +		27 57 57
t Rfilename	6 1 2 # file-name		27 58 58
⇒ <i> + </i> State: 57 state type: <i>r</i>			
← rule	→ R# sr# Po ←	← subrule element	→ Brn Gto Red LA
t Rfilename	6 2 3		27 0 57 2
⇒ <i>#file-name</i> State: 58 state type: <i>r</i>			
← rule	→ R# sr# Po ←	← subrule element	→ Brn Gto Red LA
t Rfilename	6 1 3		27 0 58 2
⇒ <i>Rfilename</i> State: 59 state type: <i>s/r</i>			
← rule	→ R# sr# Po ←	← subrule element	→ Brn Gto Red LA
c Rlint	17 2 1 ε		59 0 59 2
c Rlint	17 1 1     lint NS_lint_balls::TH_lint_balls		59 2 3
t Rfilename_phrase	5 1 2 Rlint <u>Rfilename_id</u>		27 60 65
⇒ <i>Rlint</i> State: 60 state type: <i>s</i>			
← rule	→ R# sr# Po ←	← subrule element	→ Brn Gto Red LA

c	Rfilename_id	7	3	1	?		60	61	61
c	Rfilename_id	7	2	1	+  NULL		60	62	63
c	Rfilename_id	7	1	1	identifier NS_identifier::TH_identifier		60	62	64
t	Rfilename_phrase	5	1	3	Rfilename_id		27	65	65
⇒ ?									
	← rule	→ R#	sr#	Po	←	State: 61 state type: <i>r</i>			
						subrule element	→	Brn	Gto Red LA
t	Rfilename_id	7	3	2			60	0	61 9
⇒    <i>arbitration-code: ε</i>									
	← rule	→ R#	sr#	Po	←	State: 62 state type: <i>s</i>			
						subrule element	→	Brn	Gto Red LA
t	Rfilename_id	7	2	2	+		60	63	63
t	Rfilename_id	7	1	2	identifier		60	64	64
⇒ +									
	← rule	→ R#	sr#	Po	←	State: 63 state type: <i>r</i>			
						subrule element	→	Brn	Gto Red LA
t	Rfilename_id	7	2	3			60	0	63 9
⇒ <i>identifier</i>									
	← rule	→ R#	sr#	Po	←	State: 64 state type: <i>r</i>			
						subrule element	→	Brn	Gto Red LA
t	Rfilename_id	7	1	3			60	0	64 9
⇒ <i>Rfilename_id</i>									
	← rule	→ R#	sr#	Po	←	State: 65 state type: <i>r</i>			
						subrule element	→	Brn	Gto Red LA
t	Rfilename_phrase	5	1	4			27	0	65 9
⇒ ?									
	← rule	→ R#	sr#	Po	←	State: 66 state type: <i>r</i>			
						subrule element	→	Brn	Gto Red LA
t	Rnamespace	9	3	2			32	0	66 2
⇒    <i>arbitration-code: ε</i>									
	← rule	→ R#	sr#	Po	←	State: 67 state type: <i>s</i>			
						subrule element	→	Brn	Gto Red LA
t	Rnamespace	9	2	2	+		32	68	68
t	Rnamespace	9	1	2	# name-space		32	69	69
⇒ +									
	← rule	→ R#	sr#	Po	←	State: 68 state type: <i>r</i>			
						subrule element	→	Brn	Gto Red LA
t	Rnamespace	9	2	3			32	0	68 2
⇒ <i>#name-space</i>									
	← rule	→ R#	sr#	Po	←	State: 69 state type: <i>r</i>			
						subrule element	→	Brn	Gto Red LA
t	Rnamespace	9	1	3			32	0	69 2

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err\_symbols\_ph\_th Grammar

Date: January 2, 2015 at 15:35

File: err\_symbols\_ph\_th.lex      Ns: NS\_err\_symbols\_ph\_th

Version: 1.0

Debug: false

Grammar Comments:

Type: Thread

Parse Error vocabulary.

1 element(s) in Lookahead Expression below

eolr



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