

**1. Copyright.**

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**2. *cweave\_sdc* grammar.**

Write out *cweave\_sdc* subrule's syntax directed directives sentences.

**3. Fsm *Ccweave\_sdc* class.****4. *Ccweave\_sdc* user-declaration directive.**

⟨*Ccweave\_sdc* user-declaration directive 4⟩ ≡

**public:** *std* :: *ofstream* \* *cweave\_file\_*;

*T\_subrule\_def* \* *subrule\_def\_*;

**int** *subrule\_no\_*;

**void** *initialize*(*std* :: *ofstream* \* *Cweave\_file*, *T\_subrule\_def* \* *Subrule\_def*, **int** *Subrule\_no*);

**void** *output\_sr\_sdc*(**const char** \**Directive*);

**void** *output\_sr\_sdc\_title*(**const char** \**Directive*);

**void** *wrt\_directive*(**const char** \**Directive*, *T\_syntax\_code* \* *Sdc*);

**void** *deal\_with\_cweave\_at*(**const char** \**Directive*, *T\_syntax\_code* \* *Sdc*);

**5. *Ccweave\_sdc* user-implementation directive.**

⟨*Ccweave\_sdc* user-implementation directive 5⟩ ≡

**void** *Ccweave\_sdc* :: *initialize*(*std* :: *ofstream* \* *Cweave\_file*, *T\_subrule\_def* \* *Subrule\_def*, **int** *Subrule\_no*)

{

*cweave\_file\_* = *Cweave\_file*;

*subrule\_def\_* = *Subrule\_def*;

*subrule\_no\_* = *Subrule\_no*;

}

**6.** *wrt\_directive.*

⟨More code 6⟩ ≡

```

void Ccweave_sdc::wrt_directive(const char *Directive, T_syntax_code *Sdc)
{
    if (Sdc ≡ 0) {
        output_sr_sdcode(Directive);
        (*cweave_file_) << "/";
        (*cweave_file_) << "/_no_sdcode" << endl;
        return;
    }
    if (Sdc->cweb_marker() ≠ 0) {
        WRT_CWEB_MARKER(cweave_file_, Sdc->cweb_marker());
    }
    output_sr_sdcode(Directive);
    stringxlate;
    int len = Sdc->syntax_code()-length();
    string & sdc = *Sdc->syntax_code(); /* prescan @ due to cweave reqmts */
    for (int x = 0; x < len; ++x) {
        char nc = sdc[x];
        if (nc ≡ '@') { /* check next char for cweave type directives */
            char nnc = sdc[x + 1];
            if ((nnc ≡ '*') ∨ (nnc ≡ '<') ∨ (nnc ≡ '>')) {
                xlate += nc;
                continue;
            }
            else {
                xlate += "@@";
                continue;
            }
        }
        else {
            xlate += nc;
            continue;
        }
    }
    (*cweave_file_) << xlate.c_str() << endl;
}

```

See also sections 7 and 8.

**7.** *output\_sr\_sdcode.*

⟨More code 6⟩ +≡

```

void Ccweave_sdc::output_sr_sdcode(const char *Directive)
{
    char big_buf_[BIG_BUFFER_32K];
    char xa[Max_cweb_item_size];
    XLATE_SYMBOLS_FOR_cweave(subrule_def->its_rule_def()->rule_name()->c_str(), xa);
    KCHARP cweave_sentence = "@<%s_subrule_i%s_directive@>=\n";
    sprintf(big_buf_, cweave_sentence, xa, subrule_no., Directive);
    (*cweave_file_) << big_buf_;
}

```

8. *output\_sr\_sdcode\_title*.

⟨More code 6⟩ +≡

```
void Ccweave_sdc::output_sr_sdcode_title(const char *Directive)
{
    char big_buf_[BIG_BUFFER_32K];
    char xa[Max_cweb_item_size];
    XLATE_SYMBOLS_FOR_cweave(subrule_def->its_rule_def()->rule_name()->c_str(), xa);
    KCHARP cweave_sentence = "@*4_s_subrule_i_s_directive.\n";
    sprintf(big_buf_, cweave_sentence, xa, subrule_no., Directive);
    (*cweave_file_) << big_buf_;
}
```

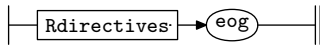
## 9. Ccweave\_sdc user-prefix-declaration directive.

⟨Ccweave\_sdc user-prefix-declaration directive 9⟩ ≡

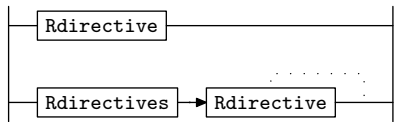
```
#include "o2_externs.h"
```

10. *Rweave\_sdc* rule.

*Rweave\_sdc*

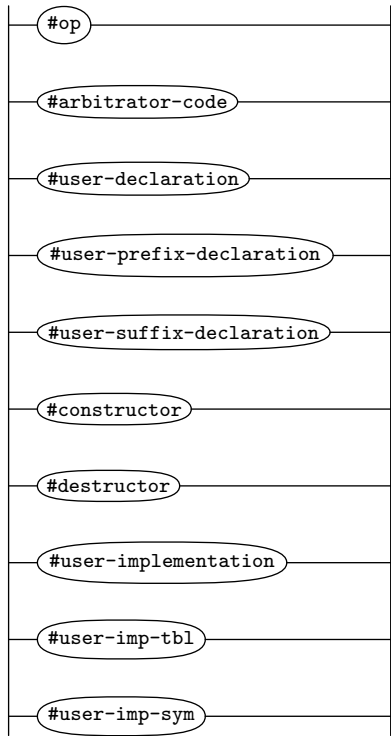
11. *Rdirectives* rule.

*Rdirectives*

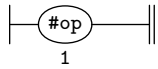


**12. Rdirective rule.**

Rdirective

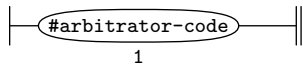


**13. Rdirective's subrule 1.**



$\langle$  Rdirective subrule 1 op directive 13  $\rangle \equiv$   
 $Ccweave\_sdc * fsm = ( Ccweave\_sdc * ) rule\_info\_parser\_fsm\_tbl\_;$   
 $KCHARP\_sdc = "op";$   
 $fsm\_wrt\_directive(sdc, sf\_p1\_syntax\_code());$

**14. Rdirective's subrule 2.**



$\langle$  Rdirective subrule 2 op directive 14  $\rangle \equiv$   
 $Ccweave\_sdc * fsm = ( Ccweave\_sdc * ) rule\_info\_parser\_fsm\_tbl\_;$   
 $KCHARP\_sdc = "arbitrator\_code";$   
 $fsm\_wrt\_directive(sdc, sf\_p1\_syntax\_code());$

**15. *Rdirective's subrule 3.***

|—#user-declaration—||  
1

⟨*Rdirective subrule 3 op directive 15*⟩ ≡  
*Ccweave\_sdc \* fsm = ( Ccweave\_sdc \* ) rule\_info...parser...fsm.tbl\_;*  
*KCHARP\_sdc = "user-declaration";*  
*fsm-wrt\_directive(sdc, sf-p1...syntax\_code());*

**16. *Rdirective's subrule 4.***

|—#user-prefix-declaration—||  
1

⟨*Rdirective subrule 4 op directive 16*⟩ ≡  
*Ccweave\_sdc \* fsm = ( Ccweave\_sdc \* ) rule\_info...parser...fsm.tbl\_;*  
*KCHARP\_sdc = "user-prefix-declaration";*  
*fsm-wrt\_directive(sdc, sf-p1...syntax\_code());*

**17. *Rdirective's subrule 5.***

|—#user-suffix-declaration—||  
1

⟨*Rdirective subrule 5 op directive 17*⟩ ≡  
*Ccweave\_sdc \* fsm = ( Ccweave\_sdc \* ) rule\_info...parser...fsm.tbl\_;*  
*KCHARP\_sdc = "user-suffix-declaration";*  
*fsm-wrt\_directive(sdc, sf-p1...syntax\_code());*

**18. *Rdirective's subrule 6.***

|—#constructor—||  
1

⟨*Rdirective subrule 6 op directive 18*⟩ ≡  
*Ccweave\_sdc \* fsm = ( Ccweave\_sdc \* ) rule\_info...parser...fsm.tbl\_;*  
*KCHARP\_sdc = "constructor";*  
*fsm-wrt\_directive(sdc, sf-p1...syntax\_code());*

**19. *Rdirective's subrule 7.***

|—#destructor—||  
1

⟨*Rdirective subrule 7 op directive 19*⟩ ≡  
*Ccweave\_sdc \* fsm = ( Ccweave\_sdc \* ) rule\_info...parser...fsm.tbl\_;*  
*KCHARP\_sdc = "destructor";*  
*fsm-wrt\_directive(sdc, sf-p1...syntax\_code());*

**20. Rdirective's subrule 8.**

| #user-implementation ||  
1

⟨ Rdirective subrule 8 op directive 20 ⟩ ≡  
*Ccweave\_sdc* \* *fsm* = ( *Ccweave\_sdc* \* ) *rule\_info...parser...fsm.tbl\_*;  
 KCHARP*sdc* = "user-implementation";  
*fsm-wrt\_directive*(*sdc*, *sf-p1...syntax\_code*( ));

**21. Rdirective's subrule 9.**

| #user-imp-tbl ||  
1

⟨ Rdirective subrule 9 op directive 21 ⟩ ≡  
*Ccweave\_sdc* \* *fsm* = ( *Ccweave\_sdc* \* ) *rule\_info...parser...fsm.tbl\_*;  
 KCHARP*sdc* = "user-imp-tbl";  
*fsm-wrt\_directive*(*sdc*, *sf-p1...syntax\_code*( ));

**22. Rdirective's subrule 10.**

| #user-imp-sym ||  
1

⟨ Rdirective subrule 10 op directive 22 ⟩ ≡  
*Ccweave\_sdc* \* *fsm* = ( *Ccweave\_sdc* \* ) *rule\_info...parser...fsm.tbl\_*;  
 KCHARP*sdc* = "user-imp-sym";  
*fsm-wrt\_directive*(*sdc*, *sf-p1...syntax\_code*( ));

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

```
/*
  File: cweave_sdc.fsc
  Date and Time: Fri Jan  2 15:33:30 2015
*/
transitive      n
grammar-name    "cweave_sdc"
name-space      "NS_cweave_sdc"
thread-name     "Ccweave_sdc"
monolithic      y
file-name       "cweave_sdc.fsc"
no-of-T         569
list-of-native-first-set-terminals 10
  T_arbitrator_code
  T_user_declaration
  T_user_prefix_declaration
  T_user_suffix_declaration
  T_constructor
  T_destructor
  T_op
  T_user_implementation
  T_user_imp_tbl
  T_user_imp_sym
end-list-of-native-first-set-terminals
list-of-transitive-threads 0
end-list-of-transitive-threads
list-of-used-threads 0
end-list-of-used-threads
fsm-comments
"Write out cweave subrule's sdc irectives sentences"
```



## 24. Lr1 State Network.

$\Rightarrow$					State: 1 state type: $s$			
$\leftarrow$	rule	$\rightarrow$	R#	sr#	Po	$\leftarrow$	subrule element	$\rightarrow$ Brn Gto Red LA
c	Rdirective		3	2	1		# arbitrator-code	1 2 2
c	Rdirective		3	3	1		# user-declaration	1 3 3
c	Rdirective		3	4	1		# user-prefix-declaration	1 4 4
c	Rdirective		3	5	1		# user-suffix-declaration	1 5 5
c	Rdirective		3	6	1		# constructor	1 6 6
c	Rdirective		3	7	1		# destructor	1 7 7
c	Rdirective		3	1	1		# op	1 8 8
c	Rdirective		3	8	1		# user-implementation	1 9 9
c	Rdirective		3	9	1		# user-imp-tbl	1 10 10
c	Rdirective		3	10	1		# user-imp-sym	1 11 11
c	Rweave_sdc		1	1	1		Rdirectives <u>eog</u>	1 12 13
c	Rdirectives		2	2	1		Rdirectives <u>Rdirective</u>	1 12 14
c	Rdirectives		2	1	1		Rdirective	1 15 15
$\Rightarrow$	#arbitrator-code						State: 2 state type: $r$	
$\leftarrow$	rule	$\rightarrow$	R#	sr#	Po	$\leftarrow$	subrule element	$\rightarrow$ Brn Gto Red LA
t	Rdirective		3	2	2			1 0 2 1
$\Rightarrow$	#user-declaration						State: 3 state type: $r$	
$\leftarrow$	rule	$\rightarrow$	R#	sr#	Po	$\leftarrow$	subrule element	$\rightarrow$ Brn Gto Red LA
t	Rdirective		3	3	2			1 0 3 1
$\Rightarrow$	#user-prefix-declaration						State: 4 state type: $r$	
$\leftarrow$	rule	$\rightarrow$	R#	sr#	Po	$\leftarrow$	subrule element	$\rightarrow$ Brn Gto Red LA
t	Rdirective		3	4	2			1 0 4 1
$\Rightarrow$	#user-suffix-declaration						State: 5 state type: $r$	
$\leftarrow$	rule	$\rightarrow$	R#	sr#	Po	$\leftarrow$	subrule element	$\rightarrow$ Brn Gto Red LA
t	Rdirective		3	5	2			1 0 5 1
$\Rightarrow$	#constructor						State: 6 state type: $r$	
$\leftarrow$	rule	$\rightarrow$	R#	sr#	Po	$\leftarrow$	subrule element	$\rightarrow$ Brn Gto Red LA
t	Rdirective		3	6	2			1 0 6 1
$\Rightarrow$	#destructor						State: 7 state type: $r$	
$\leftarrow$	rule	$\rightarrow$	R#	sr#	Po	$\leftarrow$	subrule element	$\rightarrow$ Brn Gto Red LA
t	Rdirective		3	7	2			1 0 7 1
$\Rightarrow$	#op						State: 8 state type: $r$	
$\leftarrow$	rule	$\rightarrow$	R#	sr#	Po	$\leftarrow$	subrule element	$\rightarrow$ Brn Gto Red LA
t	Rdirective		3	1	2			1 0 8 1
$\Rightarrow$	#user-implementation						State: 9 state type: $r$	
$\leftarrow$	rule	$\rightarrow$	R#	sr#	Po	$\leftarrow$	subrule element	$\rightarrow$ Brn Gto Red LA
t	Rdirective		3	8	2			1 0 9 1
$\Rightarrow$	#user-imp-tbl						State: 10 state type: $r$	
$\leftarrow$	rule	$\rightarrow$	R#	sr#	Po	$\leftarrow$	subrule element	$\rightarrow$ Brn Gto Red LA

t Rdirective	3	9	2			1	0	10	1
$\Rightarrow$ <i>#user-imp-sym</i>				State: 11 state type: <i>r</i>					
← rule	→ R#	sr#	Po	←	subrule element	→ Brn	Gto	Red	LA
t Rdirective	3	10	2			1	0	11	1
$\Rightarrow$ <i>Rdirectives</i>				State: 12 state type: <i>s</i>					
← rule	→ R#	sr#	Po	←	subrule element	→ Brn	Gto	Red	LA
t Rweave_sdc	1	1	2	eog		1	13	13	
c Rdirective	3	2	1	# arbitrator-code		12	2	2	
c Rdirective	3	3	1	# user-declaration		12	3	3	
c Rdirective	3	4	1	# user-prefix-declaration		12	4	4	
c Rdirective	3	5	1	# user-suffix-declaration		12	5	5	
c Rdirective	3	6	1	# constructor		12	6	6	
c Rdirective	3	7	1	# destructor		12	7	7	
c Rdirective	3	1	1	# op		12	8	8	
c Rdirective	3	8	1	# user-implementation		12	9	9	
c Rdirective	3	9	1	# user-imp-tbl		12	10	10	
c Rdirective	3	10	1	# user-imp-sym		12	11	11	
t Rdirectives	2	2	2	Rdirective		1	14	14	
$\Rightarrow$ <i>eog</i>				State: 13 state type: <i>r</i>					
← rule	→ R#	sr#	Po	←	subrule element	→ Brn	Gto	Red	LA
t Rweave_sdc	1	1	3			1	0	13	2
$\Rightarrow$ <i>Rdirective</i>				State: 14 state type: <i>r</i>					
← rule	→ R#	sr#	Po	←	subrule element	→ Brn	Gto	Red	LA
t Rdirectives	2	2	3			1	0	14	1
$\Rightarrow$ <i>Rdirective</i>				State: 15 state type: <i>r</i>					
← rule	→ R#	sr#	Po	←	subrule element	→ Brn	Gto	Red	LA
t Rdirectives	2	1	2			1	0	15	1

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cweave\_sdc Grammar

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Ns: NS\_cweave\_sdc

Version: 1.0

Debug: false

Grammar Comments:

Type: Monolithic

Write out cweave subrule's sdc irectives sentences

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