

SynDEx v7 Grammar

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Chapitre 1

Conventions

- upper-case text stands for keywords or base types ;
- lower-case text stands for rule names ;
- the first square brackets [...] for a rule only delimit the description of the rule ;
- the second square brackets (inside a rule description) [...] represent optional elements ;
- curly brackets {...} represent zero, one or several repetitions of the enclosed element ;
- pipes | represent alternatives for a rule ;
- usual brackets (...) are used inside a rule for sub-alternatives ;

Chapitre 2

Keywords and base types

2.1 General application information

"include":	INCLUDE
"def":	DEF
"main":	MAIN
"application":	APPLICATION
"description":	DESCRIPTION

2.2 Operation Groups were previously called Software Components

"operation_group":	OG
"software_component":	XSC
"constraint":	CONSTRAINT
"absolute":	ABSOLUTE
"relative":	RELATIVE
"union":	UNION
"disjunction":	DISJUNCTION
"syndex_version":	SYNDEX_VERSION
"initseq":	INIT_SEQ
"loopseq":	LOOP_SEQ
"endseq":	END_SEQ
"code_phases":	CODE_PHASES

2.3 Algorithm

"constant":	CONSTANT
"sensor":	SENSOR
"actuator":	ACTUATOR
"memory":	DELAY
"algorithm":	ALGORITHM
"internal":	INTERNAL
"attach_all":	ATTACH_ALL
"attach_ref":	ATTACH_REF

"attach_condi":	ATTACH_CONDI
"attach_condo":	ATTACH_CONDO
"attach_explode":	ATTACH_EXPLODE
"attach_implode":	ATTACH_IMPLODE
"conditions":	CONDITIONS
"references":	REFERENCES
"dependences":	DEPENDANCES
"strong_precedence_data":	STRONGPRECEDENCEDATA
"weak_precedence_data":	WEAKPRECEDENCEDATA
"precedence":	PRECEDENCE
"data":	DATA
"condition_synchro":	CONDITION_SYNCHRO

2.4 Architecture

"architecture":	ARCHITECTURE
"operator":	OPERATOR
"operators":	OPERATORS
"gate":	GATE
"media":	MEDIA
"medias":	MEDIAS
"sampp":	SAMPP
"sammp":	SAMMP
"ram":	RAM
"broadcast":	BROADCAST
"no_broadcast":	NOBROADCAST
"extra_durations_operator":	EXTRA_DURATIONS_OPERATOR
"extra_durations_media":	EXTRA_DURATIONS_MEDIA
"connections":	CONNECTIONS

2.5 Adequation result

"ports":	PORTS
"schedules":	SCHEDULES
"operation_scheduled":	OPERATION_SCHEDULED
"scheduled":	SCHEDULED
"calcul":	CALCUL
"communication":	COMMUNICATION
"send":	SEND
"receive":	RECEIVE
"sync":	SYNC
"send_synchro":	SEND_SYNCHRO
"receive_synchro":	RECEIVE_SYNCHRO
"read":	READ
"write":	WRITE
"ihm":	IHM
"condI":	CONDI
"condO":	CONDO
"explode":	EXPLODE
"implode":	IMPLODE

Chapitre 3

Regular expressions

```
expr_list      ::= [ [ expr_list_continue ] ]
expr_list_continue ::= [ { expr COMMA } expr ]
expr          ::= [ NAME | FLOAT | STRING | LPAREN expr RPAREN | expr PLUS expr
                  | expr MINUS expr | expr TIMES expr | expr DIV expr | CEIL expr |
                  MINUS expr | LLIST expr_list RLIST | BAR expr BAR ]
expression    ::= expr EOE
```

Chapitre 4

Application specification

The entry point of the application is the *file* rule.