### 1 Variables

### 2 root

	var	symbol	documentation	type	units	eqs
5	t	t	time	frame	s	
6	to	to	time zero	frame	s	4
7	te	te	time end	frame	s	5
1	value	value	numerical value	constant		
2	one	one	numerical value one	constant		1
3	zero	zero	numerical value zero	constant		2
4	onehalf	onehalf	numerical value one half	constant		3

# 3 physical

	var	symbol	documentation	type	units	eqs
--	-----	--------	---------------	------	-------	-----

#### 4 control

	var	symbol	documentation	type	units	eqs
--	-----	--------	---------------	------	-------	-----

#### 5 reactions

	var	symbol	documentation	type	units	eqs
--	-----	--------	---------------	------	-------	-----

# 6 material

	var	symbol	documentation	type	units	eqs
--	-----	--------	---------------	------	-------	-----

### 7 macroscopic

	var	symbol	documentation	type	units	eqs
--	-----	--------	---------------	------	-------	-----

# 8 solid

var symbol documentation	type	units	eqs
--------------------------	------	-------	-----

# 9 fluid

	var	symbol	documentation	type	units	eqs
--	-----	--------	---------------	------	-------	-----

# 10 energy

	var	symbol	documentation	type	units	eqs
--	-----	--------	---------------	------	-------	-----

# 11 liquid

	var	symbol	documentation	type	units	eqs
--	-----	--------	---------------	------	-------	-----

# 12 gas

	var	symbol	documentation	type	units	eqs
--	-----	--------	---------------	------	-------	-----

#### 13 control-control

	var	symbol	documentation	type	units	eqs
--	-----	--------	---------------	------	-------	-----

# 14 energy–gas

	var	symbol	documentation	type	units	eqs
--	-----	--------	---------------	------	-------	-----

# 15 energy-energy

	var	symbol	documentation	type	units	eqs
--	-----	--------	---------------	------	-------	-----

### 16 gas–gas

	var	symbol	documentation	type	units	eqs
--	-----	--------	---------------	------	-------	-----

# 17 energy-liquid

	var	symbol	documentation	type	units	eqs
--	-----	--------	---------------	------	-------	-----

# 18 liquid-liquid

	var	symbol	documentation	type	units	eqs
--	-----	--------	---------------	------	-------	-----

# 19 energy-solid

	var	symbol	documentation	type	units	eqs
--	-----	--------	---------------	------	-------	-----

### 20 solid-solid

var symbol documentation type units eqs			symbol	documentation	type	units	eqs
---	--	--	--------	---------------	------	-------	-----

# 21 gas-liquid

	var	symbol	documentation	type	units	eqs
--	-----	--------	---------------	------	-------	-----

# 22 gas-solid

	var	symbol	documentation	type	units	eqs
--	-----	--------	---------------	------	-------	-----

# 23 liquid-solid

	var	symbol	documentation	type	units	eqs
--	-----	--------	---------------	------	-------	-----

#### 24 material-material

	var	symbol	documentation	type	units	eqs
--	-----	--------	---------------	------	-------	-----

#### 25 reactions—reactions

	var	symbol	documentation	type	units	eqs
--	-----	--------	---------------	------	-------	-----

#### 26 control-reactions

	var	symbol	documentation	type	units	eqs
--	-----	--------	---------------	------	-------	-----

#### 27 reactions-control

	var	symbol	documentation	type	units	eqs
--	-----	--------	---------------	------	-------	-----

#### 28 control-material

	var	symbol	documentation	type	units	eqs
--	-----	--------	---------------	------	-------	-----

#### 29 material-control

	var	symbol	documentation	type	units	eqs
--	-----	--------	---------------	------	-------	-----

### $30 \quad control-macroscopic$

	var	symbol	documentation	type	units	eqs
--	-----	--------	---------------	------	-------	-----

### 31 macroscopic-control

	var	symbol	documentation	type	units	eqs
--	-----	--------	---------------	------	-------	-----

#### 32 reactions-material

var symbol documentation type units eqs			symbol	documentation	type	units	eqs
---	--	--	--------	---------------	------	-------	-----

#### 33 material-reactions

	var	symbol	documentation	type	units	eqs
--	-----	--------	---------------	------	-------	-----

# ${\bf 34} \quad {\bf reactions-macroscopic}$

	var	symbol	documentation	type	units	eqs
--	-----	--------	---------------	------	-------	-----

### 35 macroscopic-reactions

	var	symbol	documentation	type	units	eqs
--	-----	--------	---------------	------	-------	-----

### 36 material-macroscopic

	var	symbol	documentation	type	units	eqs
--	-----	--------	---------------	------	-------	-----

# 37 macroscopic-material

	var	symbol	documentation	type	units	eqs
--	-----	--------	---------------	------	-------	-----

# 38 Equations

# 39 Generic

no	equation	documentation	layer
1	one := Instantiate(value, value)	numerical value one	root
2	zero := Instantiate(value, value)	numerical value zero	root
3	onehalf := Instantiate(value, value)	numerical value one half	root
4	to := Instantiate(t, value)	time zero	root
5	te := Instantiate(t, value)	time end	root