ModelTemplateModel 5.1

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Contents

1	Mod	lule Inde	ex	1
	1.1	Module	es	1
2	Nam	nespace	Index	3
	2.1	Names	pace List	3
3	Data	a Structu	ure Index	5
	3.1	Data S	tructures	5
4	File	Index		7
	4.1	File Lis	t	7
5	Mod	lule Doc	umentation	9
	5.1	Models		9
		5.1.1	Detailed Description	9
	5.2	Utils .		10
		5.2.1	Detailed Description	10
	5.3	ModelT	emplate	11
		5.3.1	Detailed Description	11
6	Nam	nespace	Documentation	13
	6.1	jeod Na	amespace Reference	13
		6.1.1	Detailed Description	13
7	Data	a Structu	ure Documentation	15
	7.1	jeod::F	oo Class Reference	15
		7.1.1	Detailed Description	15
		7.1.2	Constructor & Destructor Documentation	15
			7.1.2.1 Foo	15
			7.1.2.2 ~Foo	16
		7.1.3	Member Function Documentation	16
			7.1.3.1 get_num	16
			7.1.3.2 set_num	16
		714	Field Documentation	16

iv CONTENTS

			7.1.4.1	num	16
	7.2	jeod::T	emplateMe	essages Class Reference	16
		7.2.1	Detailed [Description	17
		7.2.2	Construct	tor & Destructor Documentation	17
			7.2.2.1	TemplateMessages	17
			7.2.2.2	TemplateMessages	17
		7.2.3	Member F	Function Documentation	17
			7.2.3.1	operator=	17
		7.2.4	Friends A	nd Related Function Documentation	17
			7.2.4.1	init_attrjeodTemplateMessages	17
			7.2.4.2	InputProcessor	17
		7.2.5	Field Doc	umentation	17
			7.2.5.1	big_negnum	17
			7.2.5.2	big_posnum	18
			7.2.5.3	zero	18
8	File	Docum	entation		19
	8.1	foo.cc	File Refere	nce	19
		8.1.1	Detailed [Description	19
	8.2	foo.hh	File Refere	ence	19
		8.2.1	Detailed [Description	20
	8.3	templa	te_messag	ges.cc File Reference	20
		8.3.1	Detailed [Description	20
		8.3.2	Macro De	finition Documentation	20
			8.3.2.1	MAKE_TEMPLATE_MESSAGE_CODE	20
	8.4	templa	te_messag	ges.hh File Reference	21
		8.4.1	Detailed [Description	21
Ind	ex				22

Module Index

1.1 Modules

re is a list of all modules:	
Models	9
Utils	10
ModelTemplate	11

2 **Module Index**

Namespace Index

2.1	Namespace List	
Here	e is a list of all namespaces with brief descriptions:	

eod					
	Namespace jeod	 	 	 	13

Namespace Index

Data Structure Index

3.1 Data Structures

Here are the data structures with brief descriptions:

jeod::Foo	
All JEOD classes should have a doxygen-style header that describes the class	15
jeod::TemplateMessages	
Declares messages associated with the model template model	16

6 Data Structure Index

File Index

4.1 File List

Here is a list of all files with brief descriptions:

foo.cc		
	Implement class Foo	19
foo.hh		
	The file header purpose should describe why the file exists, briefly summarizing the contents of	
	the file	19
template	_messages.cc	
	Implement the class TemplateMessages	20
template	_messages.hh	
	Define the class TemplateMessages, the class that specifies the message IDs used in the model	
	template model	21

8 File Index

Module Documentation

5.1 Models

Modules

• Utils

5.1.1 Detailed Description

10 Module Documentation

5.2 Utils

Modules

• ModelTemplate

5.2.1 Detailed Description

5.3 ModelTemplate 11

5.3 ModelTemplate

Files

• file foo.hh

The file header purpose should describe why the file exists, briefly summarizing the contents of the file.

• file template_messages.hh

Define the class TemplateMessages, the class that specifies the message IDs used in the model template model.

• file foo.cc

Implement class Foo.

• file template_messages.cc

Implement the class TemplateMessages.

Namespaces

• jeod

Namespace jeod.

5.3.1 Detailed Description

12 **Module Documentation**

Namespace Documentation

6.1 jeod Namespace Reference

Namespace jeod.

Data Structures

• class Foo

All JEOD classes should have a doxygen-style header that describes the class.

• class TemplateMessages

Declares messages associated with the model template model.

6.1.1 Detailed Description

Namespace jeod.

Namespace	Documen	ntation

Data Structure Documentation

7.1 jeod::Foo Class Reference

All JEOD classes should have a doxygen-style header that describes the class.

```
#include <foo.hh>
```

Public Member Functions

• Foo ()

Foo default constructor.

• ∼Foo ()

Foo destructor.

void set_num (int value)

Setter for Foo::num.

• int get_num ()

Getter for Foo::num.

Protected Attributes

• int num

A non-zero number between -42 and 42 (inclusive).

7.1.1 Detailed Description

All JEOD classes should have a doxygen-style header that describes the class.

Explain why the class exists, what it does. In this case, this class exists to demonstrate some base JEOD documentation concepts.

Definition at line 79 of file foo.hh.

7.1.2 Constructor & Destructor Documentation

```
7.1.2.1 jeod::Foo::Foo ( void )
```

Foo default constructor.

Definition at line 40 of file foo.cc.

```
7.1.2.2 jeod::Foo::\simFoo ( void )
```

Foo destructor.

Definition at line 52 of file foo.cc.

7.1.3 Member Function Documentation

```
7.1.3.1 int jeod::Foo::get_num ( void )
```

Getter for Foo::num.

Definition at line 93 of file foo.cc.

References num.

```
7.1.3.2 void jeod::Foo::set_num ( int value )
```

Setter for Foo::num.

Definition at line 63 of file foo.cc.

References jeod::TemplateMessages::big_negnum, num, and jeod::TemplateMessages::zero.

7.1.4 Field Documentation

```
7.1.4.1 int jeod::Foo::num [protected]
```

A non-zero number between -42 and 42 (inclusive).

trick units(-)

Definition at line 94 of file foo.hh.

Referenced by get_num(), and set_num().

The documentation for this class was generated from the following files:

- foo.hh
- foo.cc

7.2 jeod::TemplateMessages Class Reference

Declares messages associated with the model template model.

```
#include <template_messages.hh>
```

Static Public Attributes

- static char const * big_negnum = "utils/model_template/" "big_negnum"
 Number is less than -42.
- static char const * zero = "utils/model_template/" "zero"

Number is zero.

• static char const * big_posnum = "utils/model_template/" "big_posnum"

Number is greater than 42.

Private Member Functions

TemplateMessages (void)

Not implemented.

• TemplateMessages (const TemplateMessages &)

Not implemented.

TemplateMessages & operator= (const TemplateMessages &)

Not implemented.

Friends

- · class InputProcessor
- void init_attrjeod__TemplateMessages ()

7.2.1 Detailed Description

Declares messages associated with the model template model.

Definition at line 83 of file template messages.hh.

7.2.2 Constructor & Destructor Documentation

```
7.2.2.1 jeod::TemplateMessages::TemplateMessages ( void ) [private]
```

Not implemented.

7.2.2.2 jeod::TemplateMessages::TemplateMessages (const TemplateMessages &) [private]

Not implemented.

7.2.3 Member Function Documentation

7.2.3.1 TemplateMessages& jeod::TemplateMessages::operator=(const TemplateMessages &) [private]

Not implemented.

7.2.4 Friends And Related Function Documentation

```
7.2.4.1 void init_attrjeod__TemplateMessages( ) [friend]
```

7.2.4.2 friend class InputProcessor [friend]

Definition at line 86 of file template_messages.hh.

7.2.5 Field Documentation

7.2.5.1 char const * jeod::TemplateMessages::big_negnum = "utils/model_template/" "big_negnum" [static]

Number is less than -42.

trick_units(-)

Definition at line 95 of file template_messages.hh.

Referenced by jeod::Foo::set_num().

7.2.5.2 char const * jeod::TemplateMessages::big_posnum = "utils/model_template/" "big_posnum" [static]

Number is greater than 42.

trick units(-)

Definition at line 105 of file template_messages.hh.

7.2.5.3 char const * jeod::TemplateMessages::zero = "utils/model_template/" "zero" [static]

Number is zero.

trick_units(-)

Definition at line 100 of file template_messages.hh.

Referenced by jeod::Foo::set_num().

The documentation for this class was generated from the following files:

- template_messages.hh
- template_messages.cc

File Documentation

8.1 foo.cc File Reference

Implement class Foo.

```
#include <iostream>
#include "utils/message/include/message_handler.hh"
#include "../include/foo.hh"
#include "../include/template_messages.hh"
```

Namespaces

• jeod

Namespace jeod.

8.1.1 Detailed Description

Implement class Foo.

Definition in file foo.cc.

8.2 foo.hh File Reference

The file header purpose should describe why the file exists, briefly summarizing the contents of the file.

```
#include "utils/sim_interface/include/jeod_class.hh"
```

Data Structures

· class jeod::Foo

All JEOD classes should have a doxygen-style header that describes the class.

Namespaces

• jeod

Namespace jeod.

20 File Documentation

8.2.1 Detailed Description

The file header purpose should describe why the file exists, briefly summarizing the contents of the file. In this case, the purpose is to define the class Foo.

Definition in file foo.hh.

8.3 template_messages.cc File Reference

Implement the class TemplateMessages.

```
#include "utils/message/include/make_message_code.hh"
#include "../include/template_messages.hh"
```

Namespaces

jeod

Namespace jeod.

Macros

• #define MAKE_TEMPLATE_MESSAGE_CODE(id) JEOD_MAKE_MESSAGE_CODE(TemplateMessages, "utils/model template/", id)

The goal in a model message code implementation file is to create storage for and initialize each of static data members declared in the model message class.

8.3.1 Detailed Description

Implement the class TemplateMessages. And in this case, demonstate how to implement message code classes.

The MessageHandler defines several methods for informing the user of special conditions that can arise, ranging in severity from fatal errors to detailed debug information. Each of these methods takes a message_code argument. The intent of the message code is to identify the model that invoked the message handler and to characterize the nature of the message.

JEOD models implement that intent by making each of the message codes be a static data member of a model-specific message class. Each such data member points to a literal character string of the form "model/path/message_id", where "model/path" is the path to the model, and "message_id" is the stringified data member name.

Definition in file template_messages.cc.

8.3.2 Macro Definition Documentation

```
8.3.2.1 #define MAKE_TEMPLATE_MESSAGE_CODE( id ) JEOD_MAKE_MESSAGE_CODE(TemplateMessages, "utils/model_template/", id)
```

The goal in a model message code implementation file is to create storage for and initialize each of static data members declared in the model message class.

There are several ways to do this. The examples below target the fictitious message class FooMessages defined in the model utils/foo. The class defines two message codes, FooMessages::fatal and FooMessages::warning.

· Most primitive:

```
const char * FooMessages::fatal = "utils/foo/fatal";
const char * FooMessages::warning = "utils/foo/warning";
```

• Recognizing that "utils/foo/" is common:

```
#define PATH "utils/foo/"
const char * FooMessages::fatal = PATH "fatal";
const char * FooMessages::warning = PATH "warning";
```

Using the JEOD MAKE MESSAGE CODE macro:

```
#define PATH "utils/foo/"
JEOD_MAKE_MESSAGE_CODE (FooMessages, PATH, fatal);
JEOD_MAKE_MESSAGE_CODE (FooMessages, PATH, warning);
```

• Using the model-specific macro MAKE_FOO_MESSAGE_CODE:

```
#define MAKE_FOO_MESSAGE_CODE(id) \
    JEOD_MAKE_MESSAGE_CODE(FooMessages, "utils/foo/", id)
MAKE_FOO_MESSAGE_CODE (fatal);
MAKE_FOO_MESSAGE_CODE (warning);
```

Define TemplateMessages data member id.

Parameters

```
id The name of the data member.
```

Definition at line 86 of file template_messages.cc.

8.4 template_messages.hh File Reference

Define the class TemplateMessages, the class that specifies the message IDs used in the model template model.

```
#include "utils/sim_interface/include/jeod_class.hh"
```

Data Structures

• class jeod::TemplateMessages

Declares messages associated with the model template model.

Namespaces

jeod

Namespace jeod.

8.4.1 Detailed Description

Define the class TemplateMessages, the class that specifies the message IDs used in the model template model. Definition in file template messages.hh.

Index

```
\simFoo
    jeod::Foo, 15
big_negnum
    jeod::TemplateMessages, 17
big_posnum
    jeod::TemplateMessages, 18
Foo
    jeod::Foo, 15
foo.cc, 19
foo.hh, 19
get_num
    jeod::Foo, 16
init_attrjeod__TemplateMessages
    jeod::TemplateMessages, 17
InputProcessor
    jeod::TemplateMessages, 17
jeod, 13
jeod::Foo, 15
    \simFoo, 15
    Foo, 15
    get_num, 16
    num, 16
    set num, 16
jeod::TemplateMessages, 16
    big_negnum, 17
    big_posnum, 18
    init_attrjeod__TemplateMessages, 17
    InputProcessor, 17
    operator=, 17
    TemplateMessages, 17
    zero, 18
ModelTemplate, 11
Models, 9
num
    jeod::Foo, 16
operator=
    jeod::TemplateMessages, 17
set_num
    jeod::Foo, 16
template_messages.cc, 20
template_messages.hh, 21
```

```
TemplateMessages
jeod::TemplateMessages, 17
Utils, 10
zero
jeod::TemplateMessages, 18
```