
rmf_utils

Release 1.0.0

Open Source Robotics Corporation

Mar 19, 2022

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Utilities used internally by OpenRMF.

RMF_UTILS API

1.1 File Hierarchy

1.2 Full API

1.2.1 Namespaces

Namespace Catch

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Namespace Catch::Detail

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- *Functions*
- *Variables*

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Namespace **Catch::Generators**

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- *Namespaces*
- *Classes*
- *Functions*
- *Typedefs*

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Classes

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- *Template Struct RequiresASpecialisationFor*
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- *Template Class Generator*
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Namespaces

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Namespace Catch::Matchers::Floating

Contents

- *Classes*

Classes

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- *Struct WithinUlpMatcher*

Namespace Catch::Matchers::Generic

Contents

- *Namespaces*
- *Classes*

Namespaces

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Classes

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Namespace Catch::Matchers::Generic::Detail

Contents

- *Functions*

Functions

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Namespace Catch::Matchers::Impl

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Classes

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Classes

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Contents

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- *Classes*

Namespaces

- *Namespace Catch::Matchers::Vector::Detail*

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Namespace rmf_utils

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- *Namespaces*
- *Classes*
- *Functions*
- *Typedefs*
- *Variables*

Namespaces

- *Namespace rmf_utils::details*

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- *Struct unique_impl_ptr::dummy_t_*
- *Template Class AssignID*
- *Template Class clone_ptr*
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- *Template Function rmf_utils::operator<(const unique_impl_ptr<T1, D1>&, const unique_impl_ptr<T2, D2>&)*
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- *Template Function rmf_utils::operator==(const unique_impl_ptr<T, D>&, std::nullptr_t)*
- *Template Function rmf_utils::operator==(std::nullptr_t, const unique_impl_ptr<T, D>&)*
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- *Template Function rmf_utils::operator>(std::nullptr_t, const unique_impl_ptr<T, D>&)*
- *Template Function rmf_utils::operator>(const unique_impl_ptr<T1, D1>&, const unique_impl_ptr<T2, D2>&)*

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- *Typedef `rmf_utils::optional`*

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Contents

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- *Functions*
- *Typedefs*

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Typedefs

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Namespace std

Contents

- *Classes*

Classes

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- *Template Struct* `hash< rmf_utils::unique_impl_ptr< T, D > >`

1.2.2 Classes and Structs

Struct AssertionInfo

- Defined in `file_latest_rmf_utils_include_rmf_utils_catch.hpp`

Struct Documentation

struct `Catch::AssertionInfo`

Public Members

StringRef **macroName**

SourceLineInfo **lineInfo**

StringRef **capturedExpression**

ResultDisposition::Flags **resultDisposition**

Struct AssertionReaction

- Defined in `file_latest_rmf_utils_include_rmf_utils_catch.hpp`

Struct Documentation

struct Catch::AssertionReaction

Public Members

bool **shouldDebugBreak** = false

bool **shouldThrow** = false

Struct AutoReg

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Inheritance Relationships

Base Type

- public Catch::NonCopyable (*Class NonCopyable*)

Struct Documentation

struct Catch::AutoReg : public Catch::NonCopyable

Public Functions

AutoReg (*ITestInvoker* *invoker, *SourceLineInfo* const &lineInfo, *StringRef* const &classOrMethod, *NameAndTags* const &nameAndTags) **noexcept**

~AutoReg ()

Struct CaseSensitive

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

struct Catch::CaseSensitive

Public Types

enum Choice

Values:

enumerator Yes

enumerator No

Struct Counts

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

struct Catch::Counts

Public Functions

Counts **operator-** (*Counts* const &*other*) **const**

Counts &**operator+=** (*Counts* const &*other*)

std::size_t **total** () **const**

bool **allPassed** () **const**

bool **allOk** () **const**

Public Members

std::size_t **passed** = 0

std::size_t **failed** = 0

std::size_t **failedButOk** = 0

Struct Decomposer

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

struct Catch::Decomposer

Public Functions

```
template<typename T>
inline auto operator<= (T const &lhs) -> ExprLhs<T const&>

inline auto operator<= (bool value) -> ExprLhs<bool>
```

Template Struct Generators

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Inheritance Relationships

Base Type

- public Catch::Generators::GeneratorBase (*Class GeneratorBase*)

Struct Documentation

```
template<typename T>
struct Catch::Generators::Generators : public Catch::Generators::GeneratorBase
```

Public Types

```
using type = T
```

Public Functions

```
inline Generators ()
inline void populate (T &&val)
template<typename U>
inline void populate (U &&val)
inline void populate (Generator<T> &&generator)
template<typename U, typename ...Gs>
inline void populate (U &&valueOrGenerator, Gs... moreGenerators)
inline auto operator[] (size_t index) const -> T
```

Public Members

```
std::vector<Generator<T>> m_generators
```


Template Struct IGenerator

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Inheritance Relationships

Derived Types

- public Catch::Generators::FixedValuesGenerator< T > (*Template Class FixedValuesGenerator*)
- public Catch::Generators::GeneratorRandomiser< T > (*Template Class GeneratorRandomiser*)
- public Catch::Generators::NullGenerator< T > (*Template Struct NullGenerator*)
- public Catch::Generators::RangeGenerator< T > (*Template Class RangeGenerator*)
- public Catch::Generators::SingleValueGenerator< T > (*Template Class SingleValueGenerator*)

Struct Documentation

template<typename T>

struct Catch::Generators::IGenerator

Subclassed by *Catch::Generators::FixedValuesGenerator< T >*, *Catch::Generators::GeneratorRandomiser< T >*, *Catch::Generators::NullGenerator< T >*, *Catch::Generators::RangeGenerator< T >*, *Catch::Generators::SingleValueGenerator< T >*

Public Functions

inline virtual ~IGenerator()

virtual auto **get** (size_t index) **const** -> T = 0

Template Struct NullGenerator

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Inheritance Relationships

Base Type

- public Catch::Generators::IGenerator< T > (*Template Struct IGenerator*)

Struct Documentation

```
template<typename T>
struct Catch::Generators::NullGenerator : public Catch::Generators::IGenerator<T>
```

Public Functions

```
inline virtual auto get (size_t) const -> T override
```

Template Struct RequiresASpecialisationFor

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

```
template<typename T>
struct RequiresASpecialisationFor
```

Struct IExceptionTranslator

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

```
struct Catch::IExceptionTranslator
```

Public Functions

```
virtual ~IExceptionTranslator ()
virtual std::string translate (ExceptionTranslators::const_iterator it, ExceptionTransla-
                             tors::const_iterator itEnd) const = 0
```

Struct IExceptionTranslatorRegistry

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

```
struct Catch::IExceptionTranslatorRegistry
```

Public Functions

```
virtual ~IExceptionTranslatorRegistry ()
virtual std::string translateActiveException () const = 0
```

Struct IGeneratorTracker

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

```
struct Catch::IGeneratorTracker
```

Public Functions

```
virtual ~IGeneratorTracker ()
virtual auto hasGenerator () const -> bool = 0
virtual auto getGenerator () const -> Generators::GeneratorBasePtr const& = 0
virtual void setGenerator (Generators::GeneratorBasePtr &&generator) = 0
virtual auto getIndex () const -> std::size_t = 0
```

Struct IMutableRegistryHub

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

```
struct Catch::IMutableRegistryHub
```

Public Functions

```
virtual ~IMutableRegistryHub ()
virtual void registerReporter (std::string const &name, IReporterFactoryPtr const &factory) = 0
virtual void registerListener (IReporterFactoryPtr const &factory) = 0
virtual void registerTest (TestCase const &testInfo) = 0
virtual void registerTranslator (const IExceptionTranslator *translator) = 0
virtual void registerTagAlias (std::string const &alias, std::string const &tag, SourceLineInfo const &lineInfo) = 0
virtual void registerStartupException () noexcept = 0
```

Struct IRegistryHub

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

struct Catch::IRegistryHub

Public Functions

```
virtual ~IRegistryHub ()
virtual IReporterRegistry const &getReporterRegistry () const = 0
virtual ITestCaseRegistry const &getTestCaseRegistry () const = 0
virtual ITagAliasRegistry const &getTagAliasRegistry () const = 0
virtual IExceptionTranslatorRegistry const &getExceptionTranslatorRegistry ()
                                                                    const
                                                                    = 0
virtual StartupExceptionRegistry const &getStartupExceptionRegistry () const = 0
```

Struct IResultCapture

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

struct Catch::IResultCapture

Public Functions

```
virtual ~IResultCapture ()
virtual bool sectionStarted (SectionInfo const &sectionInfo, Counts &assertions) = 0
virtual void sectionEnded (SectionEndInfo const &endInfo) = 0
virtual void sectionEndedEarly (SectionEndInfo const &endInfo) = 0
virtual auto acquireGeneratorTracker (SourceLineInfo const &lineInfo) -> IGenerator-
                                                                    Tracker& = 0
virtual void benchmarkStarting (BenchmarkInfo const &info) = 0
virtual void benchmarkEnded (BenchmarkStats const &stats) = 0
virtual void pushScopedMessage (MessageInfo const &message) = 0
virtual void popScopedMessage (MessageInfo const &message) = 0
virtual void handleFatalErrorCondition (StringRef message) = 0
virtual void handleExpr (AssertionInfo const &info, ITransientExpression const &expr, Asser-
                                                                    tionReaction &reaction) = 0
```

```

virtual void handleMessage (AssertionInfo const &info, ResultWas::OfType resultType,
                             StringRef const &message, AssertionReaction &reaction) = 0
virtual void handleUnexpectedExceptionNotThrown (AssertionInfo const &info, AssertionReaction &reaction) = 0
virtual void handleUnexpectedInflightException (AssertionInfo const &info,
                                                std::string const &message, AssertionReaction &reaction) = 0
virtual void handleIncomplete (AssertionInfo const &info) = 0
virtual void handleNonExpr (AssertionInfo const &info, ResultWas::OfType resultType, AssertionReaction &reaction) = 0
virtual bool lastAssertionPassed () = 0
virtual void assertionPassed () = 0
virtual std::string getCurrentTestName () const = 0
virtual const AssertionResult *getLastResult () const = 0
virtual void exceptionEarlyReported () = 0

```

Struct IRunner

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

```
struct Catch::IRunner
```

Public Functions

```

virtual ~IRunner ()
virtual bool aborting () const = 0

```

Template Struct is_range

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

```

template<typename T>
struct Catch::is_range

```

Public Static Attributes

```
static const bool value = !std::is_same<decltype(begin(std::declval<T>())), not_this_one>::value && !std::is_same<declt
```

Template Struct `is_unique`

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Inheritance Relationships

Base Type

- `public true_type`

Struct Documentation

```
template<typename...>  
struct is_unique : public true_type
```

Template Struct `is_unique< T0, T1, Rest... >`

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Inheritance Relationships

Base Type

- `public std::integral_constant< bool, !std::is_same< T0, T1 >::value && is_unique< T0, Rest... >::value && is_unique< T1, Rest... >::value >`

Struct Documentation

```
template<typename T0, typename T1, typename ...Rest>  
struct is_unique<T0, T1, Rest...> : public std::integral_constant<bool, !std::is_same<T0, T1>::value && is_unique<T0, Rest...
```

Struct `IStream`

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

struct Catch::IStream

Public Functions

virtual ~IStream()

virtual std::ostream &stream() const = 0

Struct ITestCaseRegistry

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

struct Catch::ITestCaseRegistry

Public Functions

virtual ~ITestCaseRegistry()

virtual std::vector<TestCase> const &getAllTests() const = 0

virtual std::vector<TestCase> const &getAllTestsSorted(IConfig const &config) const = 0

Struct ITestInvoker

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Inheritance Relationships

Derived Type

- public Catch::TestInvokerAsMethod< C > (*Template Class TestInvokerAsMethod*)

Struct Documentation

struct Catch::ITestInvoker

Subclassed by *Catch::TestInvokerAsMethod< C >*

Public Functions

```
virtual void invoke () const = 0  
virtual ~ITestInvoker ()
```

Struct ITransientExpression

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Inheritance Relationships

Derived Types

- public Catch::BinaryExpr< LhsT, RhsT > (*Template Class BinaryExpr*)
- public Catch::MatchExpr< ArgT, MatcherT > (*Template Class MatchExpr*)
- public Catch::UnaryExpr< LhsT > (*Template Class UnaryExpr*)

Struct Documentation

struct Catch::ITransientExpression

Subclassed by *Catch::BinaryExpr< LhsT, RhsT >*, *Catch::MatchExpr< ArgT, MatcherT >*, *Catch::UnaryExpr< LhsT >*

Public Functions

```
inline auto isBinaryExpression () const -> bool  
inline auto getResult () const -> bool  
virtual void streamReconstructedExpression (std::ostream &os) const = 0  
inline ITransientExpression (bool isBinaryExpression, bool result)  
virtual ~ITransientExpression ()
```

Public Members

```
bool m_isBinaryExpression  
bool m_result
```


Struct WithinAbsMatcher

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Inheritance Relationships

Base Type

- `public Catch::Matchers::Impl::MatcherBase< double >` (*Template Struct MatcherBase*)

Struct Documentation

```
struct Catch::Matchers::Floating::WithinAbsMatcher : public Catch::Matchers::Impl::MatcherBase<double>
```

Public Functions

WithinAbsMatcher (double *target*, double *margin*)

bool **match** (double **const** &*matchee*) **const override**

virtual std::string **describe** () **const override**

Struct WithinUlpsMatcher

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Inheritance Relationships

Base Type

- `public Catch::Matchers::Impl::MatcherBase< double >` (*Template Struct MatcherBase*)

Struct Documentation

```
struct Catch::Matchers::Floating::WithinUlpsMatcher : public Catch::Matchers::Impl::MatcherBase<double>
```

Public Functions

WithinUlpsMatcher (double *target*, int *ulps*, FloatingPointKind *baseType*)

bool **match** (double **const** &*matchee*) **const override**

virtual std::string **describe** () **const override**

Template Struct MatchAllOf

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Inheritance Relationships

Base Type

- `public Catch::Matchers::Impl::MatcherBase< ArgT > (Template Struct MatcherBase)`

Struct Documentation

```
template<typename ArgT>
struct Catch::Matchers::Impl::MatchAllOf : public Catch::Matchers::Impl::MatcherBase<ArgT>
```

Public Functions

```
inline virtual bool match (ArgT const &arg) const override
inline virtual std::string describe () const override
inline MatchAllOf<ArgT> &operator&& (MatcherBase<ArgT> const &other)
```

Public Members

```
std::vector<MatcherBase<ArgT> const*> m_matchers
```

Template Struct MatchAnyOf

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Inheritance Relationships

Base Type

- `public Catch::Matchers::Impl::MatcherBase< ArgT > (Template Struct MatcherBase)`

Struct Documentation

```
template<typename ArgT>
struct Catch::Matchers::Impl::MatchAnyOf : public Catch::Matchers::Impl::MatcherBase<ArgT>
```

Public Functions

```
inline virtual bool match (ArgT const &arg) const override
inline virtual std::string describe () const override
inline MatchAnyOf<ArgT> &operator| | (MatcherBase<ArgT> const &other)
```

Public Members

```
std::vector<MatcherBase<ArgT> const*> m_matchers
```

Template Struct MatcherBase

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Inheritance Relationships

Base Types

- public Catch::Matchers::Impl::MatcherUntypedBase (*Class MatcherUntypedBase*)
- public Catch::Matchers::Impl::MatcherMethod< T > (*Template Struct MatcherMethod*)

Derived Types

- public Catch::Matchers::Floating::WithinAbsMatcher (*Struct WithinAbsMatcher*)
- public Catch::Matchers::Floating::WithinUlpsMatcher (*Struct WithinUlpsMatcher*)
- public Catch::Matchers::Generic::PredicateMatcher< T > (*Template Class PredicateMatcher*)
- public Catch::Matchers::StdString::RegexMatcher (*Struct RegexMatcher*)
- public Catch::Matchers::StdString::StringMatcherBase (*Struct StringMatcherBase*)
- public Catch::Matchers::Vector::ContainsElementMatcher< T > (*Template Struct ContainsElementMatcher*)
- public Catch::Matchers::Vector::ContainsMatcher< T > (*Template Struct ContainsMatcher*)
- public Catch::Matchers::Vector::EqualsMatcher< T > (*Template Struct EqualsMatcher*)
- public Catch::Matchers::Vector::UnorderedEqualsMatcher< T > (*Template Struct UnorderedEqualsMatcher*)

Struct Documentation

template<typename T>

struct Catch::Matchers::Impl::MatcherBase : public Catch::Matchers::Impl::MatcherUntypedBase, public Catch::Matchers::Impl::MatcherBase
Subclassed by *Catch::Matchers::Floating::WithinAbsMatcher*, *Catch::Matchers::Floating::WithinUlpMatcher*, *Catch::Matchers::Generic::PredicateMatcher< T >*, *Catch::Matchers::StdString::RegexMatcher*, *Catch::Matchers::StdString::StringMatcherBase*, *Catch::Matchers::Vector::ContainsElementMatcher< T >*, *Catch::Matchers::Vector::ContainsMatcher< T >*, *Catch::Matchers::Vector::EqualsMatcher< T >*, *Catch::Matchers::Vector::UnorderedEqualsMatcher< T >*

Public Functions

MatchAllOf<T> **operator&&** (*MatcherBase* const &other) **const**

MatchAnyOf<T> **operator||** (*MatcherBase* const &other) **const**

MatchNotOf<T> **operator!** () **const**

Template Struct MatcherMethod

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

template<typename ObjectT>

struct Catch::Matchers::Impl::MatcherMethod

Public Functions

virtual bool **match** (*ObjectT* const &arg) **const** = 0

Template Struct MatchNotOf

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Inheritance Relationships

Base Type

- public Catch::Matchers::Impl::MatcherBase< ArgT > (*Template Struct MatcherBase*)

Struct Documentation

```
template<typename ArgT>
struct Catch::Matchers::Impl::MatchNotOf : public Catch::Matchers::Impl::MatcherBase<ArgT>
```

Public Functions

```
inline MatchNotOf (MatcherBase<ArgT> const &underlyingMatcher)
inline virtual bool match (ArgT const &arg) const override
inline virtual std::string describe () const override
```

Public Members

```
MatcherBase<ArgT> const &m_underlyingMatcher
```

Struct CasedString

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

```
struct Catch::Matchers::StdString::CasedString
```

Public Functions

```
CasedString (std::string const &str, CaseSensitive::Choice caseSensitivity)
std::string adjustString (std::string const &str) const
std::string caseSensitivitySuffix () const
```

Public Members

```
CaseSensitive::Choice m_caseSensitivity
std::string m_str
```

Struct ContainsMatcher

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Inheritance Relationships

Base Type

- `public Catch::Matchers::StdString::StringMatcherBase` (*Struct StringMatcherBase*)

Struct Documentation

struct `Catch::Matchers::StdString::ContainsMatcher` : **public** `Catch::Matchers::StdString::StringMatcherBase`

Public Functions

ContainsMatcher (*CasedString* **const** &*comparator*)
bool match (`std::string` **const** &*source*) **const override**

Struct EndsWithMatcher

- Defined in `file_latest_rmf_utils_include_rmf_utils_catch.hpp`

Inheritance Relationships

Base Type

- `public Catch::Matchers::StdString::StringMatcherBase` (*Struct StringMatcherBase*)

Struct Documentation

struct `Catch::Matchers::StdString::EndsWithMatcher` : **public** `Catch::Matchers::StdString::StringMatcherBase`

Public Functions

EndsWithMatcher (*CasedString* **const** &*comparator*)
bool match (`std::string` **const** &*source*) **const override**

Struct EqualsMatcher

- Defined in `file_latest_rmf_utils_include_rmf_utils_catch.hpp`

Inheritance Relationships

Base Type

- `public Catch::Matchers::StdString::StringMatcherBase` (*Struct StringMatcherBase*)

Struct Documentation

struct `Catch::Matchers::StdString::EqualsMatcher` : **public** `Catch::Matchers::StdString::StringMatcherBase`

Public Functions

EqualsMatcher (*CasedString* **const** &comparator)
bool match (std::string **const** &source) **const override**

Struct RegexMatcher

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Inheritance Relationships

Base Type

- `public Catch::Matchers::Impl::MatcherBase< std::string >` (*Template* *Struct* *MatcherBase*)

Struct Documentation

struct `Catch::Matchers::StdString::RegexMatcher` : **public** `Catch::Matchers::Impl::MatcherBase<std::string>`

Public Functions

RegexMatcher (std::string *regex*, *CaseSensitive::Choice* *caseSensitivity*)
bool match (std::string **const** &matchee) **const override**
virtual std::string **describe** () **const override**

Struct StartsWithMatcher

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Inheritance Relationships

Base Type

- `public Catch::Matchers::StdString::StringMatcherBase` (*Struct StringMatcherBase*)

Struct Documentation

struct `Catch::Matchers::StdString::StartsWithMatcher` : **public** `Catch::Matchers::StdString::StringMatcherBase`

Public Functions

StartsWithMatcher (*CasedString* **const** &*comparator*)
bool match (`std::string` **const** &*source*) **const override**

Struct StringMatcherBase

- Defined in `file_latest_rmf_utils_include_rmf_utils_catch.hpp`

Inheritance Relationships

Base Type

- `public Catch::Matchers::Impl::MatcherBase< std::string >` (*Template Struct MatcherBase*)

Derived Types

- `public Catch::Matchers::StdString::ContainsMatcher` (*Struct ContainsMatcher*)
- `public Catch::Matchers::StdString::EndsWithMatcher` (*Struct EndsWithMatcher*)
- `public Catch::Matchers::StdString::EqualsMatcher` (*Struct EqualsMatcher*)
- `public Catch::Matchers::StdString::StartsWithMatcher` (*Struct StartsWithMatcher*)

Struct Documentation

struct `Catch::Matchers::StdString::StringMatcherBase` : **public** `Catch::Matchers::Impl::MatcherBase<std::string>`
Subclassed by *Catch::Matchers::StdString::ContainsMatcher*, *Catch::Matchers::StdString::EndsWithMatcher*, *Catch::Matchers::StdString::EqualsMatcher*, *Catch::Matchers::StdString::StartsWithMatcher*

Public Functions

```
StringMatcherBase (std::string const &operation, CasedString const &comparator)
virtual std::string describe () const override
```

Public Members

```
CasedString m_comparator
std::string m_operation
```

Template Struct ContainsElementMatcher

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Inheritance Relationships

Base Type

- public Catch::Matchers::Impl::MatcherBase< std::vector< T > > (*Template Struct MatcherBase*)

Struct Documentation

```
template<typename T>
struct Catch::Matchers::Vector::ContainsElementMatcher : public Catch::Matchers::Impl::MatcherBase<std::
```

Public Functions

```
inline ContainsElementMatcher (T const &comparator)
inline bool match (std::vector<T> const &v) const override
inline virtual std::string describe () const override
```

Public Members

```
T const &m_comparator
```

Template Struct ContainsMatcher

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Inheritance Relationships

Base Type

- `public Catch::Matchers::Impl::MatcherBase< std::vector< T > >` (*Template Struct [MatcherBase](#)*)

Struct Documentation

template<typename T>

struct Catch::Matchers::Vector::ContainsMatcher : public Catch::Matchers::Impl::[MatcherBase](#)<std::vector<T>>

Public Functions

inline ContainsMatcher (std::vector<[T](#)> const &comparator)

inline bool match (std::vector<[T](#)> const &v) **const override**

inline virtual std::string describe () **const override**

Public Members

std::vector<[T](#)> const &m_comparator

Template Struct EqualsMatcher

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Inheritance Relationships

Base Type

- `public Catch::Matchers::Impl::MatcherBase< std::vector< T > >` (*Template Struct [MatcherBase](#)*)

Struct Documentation

template<typename T>

struct Catch::Matchers::Vector::EqualsMatcher : public Catch::Matchers::Impl::[MatcherBase](#)<std::vector<T>>

Public Functions

```
inline EqualsMatcher (std::vector<T> const &comparator)
inline bool match (std::vector<T> const &v) const override
inline virtual std::string describe () const override
```

Public Members

```
std::vector<T> const &m_comparator
```

Template Struct UnorderedEqualsMatcher

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Inheritance Relationships

Base Type

- public Catch::Matchers::Impl::MatcherBase< std::vector< T > > (*Template Struct MatcherBase*)

Struct Documentation

```
template<typename T>
```

```
struct Catch::Matchers::Vector::UnorderedEqualsMatcher : public Catch::Matchers::Impl::MatcherBase<std::
```

Public Functions

```
inline UnorderedEqualsMatcher (std::vector<T> const &target)
inline bool match (std::vector<T> const &vec) const override
inline virtual std::string describe () const override
```

Struct MessageBuilder

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Inheritance Relationships

Base Type

- public Catch::MessageStream (*Struct MessageStream*)

Struct Documentation

```
struct Catch::MessageBuilder : public Catch::MessageStream
```

Public Functions

```
MessageBuilder(StringRef const &macroName, SourceLineInfo const &lineInfo, ResultWas::OfType type)  
template<typename T>  
inline MessageBuilder &operator<< (T const &value)
```

Public Members

```
MessageInfo m_info
```

Struct MessageInfo

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

```
struct Catch::MessageInfo
```

Public Functions

```
MessageInfo(StringRef const &_macroName, SourceLineInfo const &_lineInfo, ResultWas::OfType _type)  
bool operator== (MessageInfo const &other) const  
bool operator< (MessageInfo const &other) const
```

Public Members

```
StringRef macroName  
std::string message  
SourceLineInfo lineInfo  
ResultWas::OfType type  
unsigned int sequence
```

Struct `MessageStream`

- Defined in `file_latest_rmf_utils_include_rmf_utils_catch.hpp`

Inheritance Relationships

Derived Type

- `public Catch::MessageBuilder` (*Struct `MessageBuilder`*)

Struct Documentation

struct `Catch::MessageStream`
Subclassed by *`Catch::MessageBuilder`*

Public Functions

```
template<typename T>  
inline MessageStream &operator<< (T const &value)
```

Public Members

ReusableStringStream **m_stream**

Struct `NameAndTags`

- Defined in `file_latest_rmf_utils_include_rmf_utils_catch.hpp`

Struct Documentation

struct `Catch::NameAndTags`

Public Functions

```
NameAndTags (StringRef const &name_ = StringRef(), StringRef const &tags_ = StringRef())  
noexcept
```

Public Members

StringRef **name**

StringRef **tags**

Struct `not_this_one`

- Defined in `file_latest_rmf_utils_include_rmf_utils_catch.hpp`

Struct Documentation

struct `not_this_one`

Struct `pluralise`

- Defined in `file_latest_rmf_utils_include_rmf_utils_catch.hpp`

Struct Documentation

struct `Catch::pluralise`

Public Functions

pluralise (`std::size_t` *count*, `std::string` **const** *&label*)

Public Members

`std::size_t` **m_count**

`std::string` **m_label**

Friends

friend friend `std::ostream & operator<<` (`std::ostream` *&os*, `pluralise` **const** *&pluraliser*)

Struct `RegistrarForTagAliases`

- Defined in `file_latest_rmf_utils_include_rmf_utils_catch.hpp`

Struct Documentation

struct `Catch::RegistrarForTagAliases`

Public Functions

RegistrarForTagAliases (char const *alias, char const *tag, *SourceLineInfo* const &line-Info)

Struct ResultDisposition

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

```
struct Catch::ResultDisposition
```

Public Types

```
enum Flags
```

Values:

```
enumerator Normal
enumerator ContinueOnFailure
enumerator FalseTest
enumerator SuppressFail
```

Struct ResultWas

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

```
struct Catch::ResultWas
```

Public Types

```
enum OfType
```

Values:

```
enumerator Unknown
enumerator Ok
enumerator Info
enumerator Warning
enumerator FailureBit
enumerator ExpressionFailed
enumerator ExplicitFailure
enumerator Exception
enumerator ThrewException
```

enumerator `DidntThrowException`

enumerator `FatalErrorCondition`

Struct `SectionEndInfo`

- Defined in `file_latest_rmf_utils_include_rmf_utils_catch.hpp`

Struct Documentation

struct `Catch::SectionEndInfo`

Public Members

SectionInfo `sectionInfo`

Counts `prevAssertions`

`double` `durationInSeconds`

Struct `SectionInfo`

- Defined in `file_latest_rmf_utils_include_rmf_utils_catch.hpp`

Struct Documentation

struct `Catch::SectionInfo`

Public Functions

`SectionInfo` (*SourceLineInfo* `const` `&_lineInfo`, `std::string` `const` `&_name`)

`inline SectionInfo` (*SourceLineInfo* `const` `&_lineInfo`, `std::string` `const` `&_name`, `std::string` `const&`)

Public Members

`std::string` `name`

`std::string` `description`

SourceLineInfo `lineInfo`

Struct SourceLineInfo

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

```
struct Catch::SourceLineInfo
```

Public Functions

```
SourceLineInfo () = delete
```

```
inline SourceLineInfo (char const *_file, std::size_t _line) noexcept
```

```
SourceLineInfo (SourceLineInfo const &other) = default
```

```
SourceLineInfo (SourceLineInfo&&) = default
```

```
SourceLineInfo &operator= (SourceLineInfo const&) = default
```

```
SourceLineInfo &operator= (SourceLineInfo&&) = default
```

```
bool empty () const noexcept
```

```
bool operator== (SourceLineInfo const &other) const noexcept
```

```
bool operator< (SourceLineInfo const &other) const noexcept
```

Public Members

```
char const *file
```

```
std::size_t line
```

Struct StreamEndStop

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

```
struct Catch::StreamEndStop
```

Public Functions

```
std::string operator+ () const
```

Template Struct StringMaker

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

```
template<typename T, typename = void>
struct Catch::StringMaker
```

Public Static Functions

```
template<typename Fake = T>
static inline std::enable_if<::Catch::Detail::IsStreamInsertable<Fake>::value, std::string>::type convert (const
Fake
&value)
```

```
template<typename Fake = T>
static inline std::enable_if<!::Catch::Detail::IsStreamInsertable<Fake>::value, std::string>::type convert (const
Fake
&value)
```

Template Struct StringMaker< bool >

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

```
template<>
struct Catch::StringMaker<bool>
```

Public Static Functions

```
static std::string convert (bool b)
```

Template Struct StringMaker< Catch::Detail::Approx >

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

```
template<>
struct Catch::StringMaker<Catch::Detail::Approx>
```

Public Static Functions

static std::string **convert** (Catch::Detail::Approx const &value)

Template Struct StringMaker< char * >

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

```
template<>
struct Catch::StringMaker<char*>
```

Public Static Functions

static std::string **convert** (char *str)

Template Struct StringMaker< char >

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

```
template<>
struct Catch::StringMaker<char>
```

Public Static Functions

static std::string **convert** (char c)

Template Struct StringMaker< char const * >

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

```
template<>
struct Catch::StringMaker<char const*>
```

Public Static Functions

```
static std::string convert (char const *str)
```

Template Struct StringMaker< char[SZ]>

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

```
template<int SZ>  
struct Catch::StringMaker<char[SZ]>
```

Public Static Functions

```
static inline std::string convert (char const *str)
```

Template Struct StringMaker< double >

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

```
template<>  
struct Catch::StringMaker<double>
```

Public Static Functions

```
static std::string convert (double value)
```

Template Struct StringMaker< float >

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

```
template<>  
struct Catch::StringMaker<float>
```

Public Static Functions

static std::string **convert** (float *value*)

Template Struct StringMaker< int >

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

```
template<>
struct Catch::StringMaker<int>
```

Public Static Functions

static std::string **convert** (int *value*)

Template Struct StringMaker< long >

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

```
template<>
struct Catch::StringMaker<long>
```

Public Static Functions

static std::string **convert** (long *value*)

Template Struct StringMaker< long long >

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

```
template<>
struct Catch::StringMaker<long long>
```

Public Static Functions

static std::string **convert** (long long *value*)

Template Struct StringMaker< R C::* >

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

```
template<typename R, typename C>
struct Catch::StringMaker<R C::*>
```

Public Static Functions

static inline std::string **convert** (R C::* *p*)

Template Struct StringMaker< R, typename std::enable_if< is_range< R >::value &&!::Catch::Detail::IsStreamInsertable< R >::value >::type >

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

```
template<typename R>
struct Catch::StringMaker<R, typename std::enable_if<is_range<R>::value &&!::Catch::Detail::IsStreamInsertable<R>::
```

Public Static Functions

static inline std::string **convert** (R const &*range*)

Template Struct StringMaker< signed char >

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

```
template<>
struct Catch::StringMaker<signed char>
```

Public Static Functions

static std::string **convert** (signed char *c*)

Template Struct StringMaker< signed char[SZ]>

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

```
template<int SZ>
struct Catch::StringMaker<signed char[SZ]>
```

Public Static Functions

static inline std::string **convert** (signed char **const** **str*)

Template Struct StringMaker< std::nullptr_t >

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

```
template<>
struct Catch::StringMaker<std::nullptr_t>
```

Public Static Functions

static std::string **convert** (std::nullptr_t)

Template Struct StringMaker< std::string >

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

```
template<>
struct Catch::StringMaker<std::string>
```

Public Static Functions

static std::string **convert** (**const** std::string &*str*)

Template Struct StringMaker< std::wstring >

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

```
template<>
struct Catch::StringMaker<std::wstring>
```

Public Static Functions

static std::string **convert** (**const** std::wstring &*wstr*)

Template Struct StringMaker< T * >

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

```
template<typename T>
struct Catch::StringMaker<T*>
```

Public Static Functions

```
template<typename U>
static inline std::string convert (U *p)
```

Template Struct StringMaker< T[SZ]>

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

```
template<typename T, int SZ>
struct Catch::StringMaker<T[SZ]>
```


Public Static Functions

```
static inline std::string convert (T const (&arr)[SZ])
```

Template Struct StringMaker< unsigned char >

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

```
template<>  
struct Catch::StringMaker<unsigned char>
```

Public Static Functions

```
static std::string convert (unsigned char c)
```

Template Struct StringMaker< unsigned char[SZ]>

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

```
template<int SZ>  
struct Catch::StringMaker<unsigned char[SZ]>
```

Public Static Functions

```
static inline std::string convert (unsigned char const *str)
```

Template Struct StringMaker< unsigned int >

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

```
template<>  
struct Catch::StringMaker<unsigned int>
```

Public Static Functions

static std::string **convert** (unsigned int *value*)

Template Struct StringMaker< unsigned long >

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

```
template<>
struct Catch::StringMaker<unsigned long>
```

Public Static Functions

static std::string **convert** (unsigned long *value*)

Template Struct StringMaker< unsigned long long >

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

```
template<>
struct Catch::StringMaker<unsigned long long>
```

Public Static Functions

static std::string **convert** (unsigned long long *value*)

Template Struct StringMaker< wchar_t * >

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

```
template<>
struct Catch::StringMaker<wchar_t*>
```

Public Static Functions

static std::string **convert** (wchar_t *str)

Template Struct StringMaker< wchar_t const * >

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

```
template<>
struct Catch::StringMaker<wchar_t const*>
```

Public Static Functions

static std::string **convert** (wchar_t const *str)

Struct TestCaseInfo

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Inheritance Relationships

Derived Type

- public Catch::TestCase (*Class TestCase*)

Struct Documentation

```
struct Catch::TestCaseInfo
    Subclassed by Catch::TestCase
```

Public Types

```
enum SpecialProperties
    Values:
        enumerator None
        enumerator IsHidden
        enumerator ShouldFail
        enumerator MayFail
        enumerator Throws
        enumerator NonPortable
        enumerator Benchmark
```

Public Functions

```
TestCaseInfo (std::string const &_name, std::string const &_className, std::string const
               &_description, std::vector<std::string> const &_tags, SourceLineInfo const
               &_lineInfo)

bool isHidden () const

bool throws () const

bool okToFail () const

bool expectedToFail () const

std::string tagsAsString () const
```

Public Members

```
std::string name
std::string className
std::string description
std::vector<std::string> tags
std::vector<std::string> lcaseTags
SourceLineInfo lineInfo
SpecialProperties properties
```

Friends

```
friend friend void setTags (TestCaseInfo &testCaseInfo, std::vector< std::string > tags)
```

Struct TestFailureException

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

```
struct TestFailureException
```

Struct Totals

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

struct `Catch::Totals`

Public Functions

Totals **operator-** (*Totals* const &*other*) const

Totals &**operator+=** (*Totals* const &*other*)

Totals **delta** (*Totals* const &*prevTotals*) const

Public Members

int **error** = 0

Counts **assertions**

Counts **testCases**

Struct `Catch_global_namespace_dummy`

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Struct Documentation

struct `Catch_global_namespace_dummy`

Template Struct `is_default_manageable`

- Defined in file_latest_rmf_utils_include_rmf_utils_impl_ptr.hpp

Inheritance Relationships

Base Type

- `public std::integral_constant< bool, std::is_same< D, default_deleter_t< T > >::value &&std::is_same< C, default_copier_t< T > >::value >`

Struct Documentation

template<class **T**, class **D**, class **C** = *default_copier_t<T>*>>

struct `is_default_manageable` : **public** std::integral_constant<bool, std::is_same<*D*, *default_deleter_t<T>*>::value && st

Template Struct ModularLess

- Defined in file_latest_rmf_utils_include_rmf_utils_Modular.hpp

Struct Documentation

template<typename **V**>

struct rmf_utils::ModularLess

This class wraps up the *Modular::less_than* operation into a “binary predicate” class type so it can be used in template metaprogramming.

Public Functions

inline bool operator() (const *V* &lhs, const *V* &rhs) **const**

Struct unique_impl_ptr::dummy_t_

- Defined in file_latest_rmf_utils_include_rmf_utils_impl_ptr.hpp

Nested Relationships

This struct is a nested type of *Template Class unique_impl_ptr*.

Struct Documentation

struct rmf_utils::unique_impl_ptr::dummy_t_

Public Members

int **dummy__**

Template Struct hash< rmf_utils::impl_ptr< T, D, C > >

- Defined in file_latest_rmf_utils_include_rmf_utils_impl_ptr.hpp

Struct Documentation

template<class **T**, class **D**, class **C**>

struct std::hash<rmf_utils::impl_ptr<*T*, *D*, *C*>>

Public Types

```
using argument_type = rmf_utils::impl_ptr<T, D, C>
using result_type = size_t
```

Public Functions

```
inline result_type operator() (const argument_type &p) const noexcept
```

Template Struct hash< rmf_utils::unique_impl_ptr< T, D > >

- Defined in file_latest_rmf_utils_include_rmf_utils_impl_ptr.hpp

Struct Documentation

```
template<class T, class D>
struct std::hash<rmf_utils::unique_impl_ptr<T, D>>
```

Public Types

```
using argument_type = rmf_utils::unique_impl_ptr<T, D>
using result_type = size_t
```

Public Functions

```
inline result_type operator() (const argument_type &p) const noexcept
```

Class AssertionHandler

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Class Documentation

```
class Catch::AssertionHandler
```

Public Functions

```
AssertionHandler (StringRef const &macroName, SourceLineInfo const &lineInfo, StringRef
                 capturedExpression, ResultDisposition::Flags resultDisposition)
```

```
inline ~AssertionHandler ()
```

```
template<typename T>
```

```
inline void handleExpr (ExprLhs<T> const &expr)
```

```
void handleExpr (ITransientExpression const &expr)
```

```
void handleMessage (ResultWas::OfType resultType, StringRef const &message)
```

```
void handleExceptionThrownAsExpected ()
void handleUnexpectedExceptionNotThrown ()
void handleExceptionNotThrownAsExpected ()
void handleThrowingCallSkipped ()
void handleUnexpectedInflightException ()
void complete ()
void setCompleted ()
auto allowThrows () const -> bool
```

Class BenchmarkLooper

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Class Documentation

```
class Catch::BenchmarkLooper
```

Public Functions

```
inline BenchmarkLooper (StringRef name)
inline explicit operator bool ()
inline void increment ()
void reportStart ()
auto needsMoreIterations () -> bool
```

Template Class BinaryExpr

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Inheritance Relationships

Base Type

- public Catch::ITransientExpression (*Struct ITransientExpression*)

Class Documentation

```
template<typename LhsT, typename RhsT>
class Catch::BinaryExpr : public Catch::ITransientExpression
```

Public Functions

```
inline BinaryExpr (bool comparisonResult, LhsT lhs, StringRef op, RhsT rhs)
```

Class Capturer

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Class Documentation

```
class Catch::Capturer
```

Public Functions

```
Capturer (StringRef macroName, SourceLineInfo const &lineInfo, ResultWas::OfType resultType,
          StringRef names)
```

```
~Capturer ()
```

```
void captureValue (size_t index, std::string const &value)
```

```
template<typename T>
```

```
inline void captureValues (size_t index, T const &value)
```

```
template<typename T, typename ...Ts>
```

```
inline void captureValues (size_t index, T const &value, Ts const&... values)
```

Class Approx

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Class Documentation

```
class Catch::Detail::Approx
```

Public Functions

```
explicit Approx (double value)
```

```
Approx operator- () const
```

```
template<typename T, typename = typename std::enable_if<std::is_constructible<double, T::value>::type>
```

```
inline Approx operator() (T const &value)
```

```
template<typename T, typename = typename std::enable_if<std::is_constructible<double, T::value>::type>
```

```
inline explicit Approx (T const &value)
```

```
template<typename T, typename = typename std::enable_if<std::is_constructible<double, T>::value>::type>
inline Approx &epsilon (T const &newEpsilon)

template<typename T, typename = typename std::enable_if<std::is_constructible<double, T>::value>::type>
inline Approx &margin (T const &newMargin)

template<typename T, typename = typename std::enable_if<std::is_constructible<double, T>::value>::type>
inline Approx &scale (T const &newScale)

std::string toString () const
```

Public Static Functions

```
static Approx custom ()
```

Friends

```
template<typename T, typename = typename std::enable_if<std::is_constructible<double,
template<typename T, typename = typename std::enable_if<std::is_constructible<double,
template<typename T, typename = typename std::enable_if<std::is_constructible<double,
template<typename T, typename = typename std::enable_if<std::is_constructible<double,
template<typename T, typename = typename std::enable_if<std::is_constructible<double,
template<typename T, typename = typename std::enable_if<std::is_constructible<double,
template<typename T, typename = typename std::enable_if<std::is_constructible<double,
template<typename T, typename = typename std::enable_if<std::is_constructible<double,
```

Template Class IsStreamInsertable

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Class Documentation

```
template<typename T>
class Catch::Detail::IsStreamInsertable
```

Public Static Attributes

```
static const bool value = decltype(test<std::ostream, const T&>(0))::value
```

Class ExceptionTranslatorRegistrar

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Nested Relationships

Nested Types

- *Template Class ExceptionTranslatorRegistrar::ExceptionTranslator*

Class Documentation

```
class Catch::ExceptionTranslatorRegistrar
```

Public Functions

```
template<typename T>
inline ExceptionTranslatorRegistrar (std::string (*translateFunction)) T&
```

Template Class ExceptionTranslatorRegistrar::ExceptionTranslator

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Nested Relationships

This class is a nested type of *Class ExceptionTranslatorRegistrar*.

Inheritance Relationships

Base Type

- `public` Catch::IExceptionTranslator (*Struct IExceptionTranslator*)

Class Documentation

```
template<typename T>
class Catch::ExceptionTranslatorRegistrar::ExceptionTranslator : public Catch::IExceptionTranslator
```

Public Functions

```
inline ExceptionTranslator (std::string (*translateFunction)) T&
inline std::string translate (ExceptionTranslators::const_iterator it,      ExceptionTransla-
                             tors::const_iterator itEnd) const override
```

Protected Attributes

```
std::string (*m_translateFunction) (T&)
```

Template Class ExprLhs

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Class Documentation

```
template<typename LhsT>
class Catch::ExprLhs
```

Public Functions

```
inline explicit ExprLhs (LhsT lhs)

template<typename RhsT>
inline auto operator== (RhsT const &rhs) -> BinaryExpr<LhsT, RhsT const&> const

inline auto operator== (bool rhs) -> BinaryExpr<LhsT, bool> const

template<typename RhsT>
inline auto operator!= (RhsT const &rhs) -> BinaryExpr<LhsT, RhsT const&> const

inline auto operator!= (bool rhs) -> BinaryExpr<LhsT, bool> const

template<typename RhsT>
inline auto operator> (RhsT const &rhs) -> BinaryExpr<LhsT, RhsT const&> const

template<typename RhsT>
inline auto operator< (RhsT const &rhs) -> BinaryExpr<LhsT, RhsT const&> const

template<typename RhsT>
inline auto operator>= (RhsT const &rhs) -> BinaryExpr<LhsT, RhsT const&> const

template<typename RhsT>
inline auto operator<= (RhsT const &rhs) -> BinaryExpr<LhsT, RhsT const&> const

inline auto makeUnaryExpr () const -> UnaryExpr<LhsT>
```

Template Class FixedValuesGenerator

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Inheritance Relationships

Base Type

- public Catch::Generators::IGenerator< T > (*Template Struct IGenerator*)

Class Documentation

template<typename T>

class Catch::Generators::FixedValuesGenerator : public Catch::Generators::IGenerator<T>

Public Functions

inline FixedValuesGenerator (std::initializer_list<T> values)

inline virtual auto get (size_t index) **const** -> T **override**

Template Class Generator

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Class Documentation

template<typename T>

class Catch::Generators::Generator

Public Functions

inline Generator (size_t size, std::unique_ptr<IGenerator<T>> generator)

inline auto size () **const** -> size_t

inline auto operator[] (size_t index) **const** -> T

Class GeneratorBase

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Inheritance Relationships

Derived Type

- `public Catch::Generators::Generators< T >` (*Template Struct Generators*)

Class Documentation

class `Catch::Generators::GeneratorBase`
Subclassed by *Catch::Generators::Generators< T >*

Public Functions

```
inline GeneratorBase (size_t size)
virtual ~GeneratorBase ()
inline auto size () const -> size_t
```

Protected Attributes

```
size_t m_size = 0
```

Template Class GeneratorRandomiser

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Inheritance Relationships

Base Type

- `public Catch::Generators::IGenerator< T >` (*Template Struct IGenerator*)

Class Documentation

```
template<typename T>
class Catch::Generators::GeneratorRandomiser : public Catch::Generators::IGenerator<T>
```

Public Functions

```
inline GeneratorRandomiser (Generator<T> &&baseGenerator, size_t numberOfItems)
inline virtual auto get (size_t index) const -> T override
```

Template Class RangeGenerator

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Inheritance Relationships

Base Type

- public Catch::Generators::IGenerator< T > (*Template Struct IGenerator*)

Class Documentation

template<typename T>

class Catch::Generators::RangeGenerator : public Catch::Generators::IGenerator<T>

Public Functions

inline RangeGenerator (T const &first, T const &last)

inline virtual auto get (size_t index) const -> T override

Template Class SingleValueGenerator

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Inheritance Relationships

Base Type

- public Catch::Generators::IGenerator< T > (*Template Struct IGenerator*)

Class Documentation

template<typename T>

class Catch::Generators::SingleValueGenerator : public Catch::Generators::IGenerator<T>

Public Functions

inline SingleValueGenerator (T const &value)

inline virtual auto get (size_t) const -> T override

Class LazyExpression

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Class Documentation

```
class Catch::LazyExpression
```

Public Functions

```
LazyExpression (bool isNegated)
LazyExpression (LazyExpression const &other)
LazyExpression &operator= (LazyExpression const&) = delete
explicit operator bool () const
```

Friends

```
friend friend auto operator<< (std::ostream &os, LazyExpression const &lazyExpr) -> std::ostream&
```

Template Class PredicateMatcher

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Inheritance Relationships

Base Type

- public Catch::Matchers::Impl::MatcherBase< T > (*Template Struct MatcherBase*)

Class Documentation

```
template<typename T>
class Catch::Matchers::Generic::PredicateMatcher : public Catch::Matchers::Impl::MatcherBase<T>
```

Public Functions

```
inline PredicateMatcher (std::function<bool> T const&
    > const &elem, std::string const &descr)
inline virtual bool match (T const &item) const override
inline virtual std::string describe () const override
```


Class `MatcherUntypedBase`

- Defined in file `latest_rmf_utils_include_rmf_utils_catch.hpp`

Inheritance Relationships

Derived Types

- `public Catch::Matchers::Impl::MatcherBase< T >` (*Template Struct `MatcherBase`*)
- `public Catch::Matchers::Impl::MatcherBase< ArgT >` (*Template Struct `MatcherBase`*)
- `public Catch::Matchers::Impl::MatcherBase< double >` (*Template Struct `MatcherBase`*)
- `public Catch::Matchers::Impl::MatcherBase< std::string >` (*Template Struct `MatcherBase`*)
- `public Catch::Matchers::Impl::MatcherBase< std::vector< T > >` (*Template Struct `MatcherBase`*)

Class Documentation

class `Catch::Matchers::Impl::MatcherUntypedBase`

Subclassed by `Catch::Matchers::Impl::MatcherBase< T >`, `Catch::Matchers::Impl::MatcherBase< ArgT >`, `Catch::Matchers::Impl::MatcherBase< double >`, `Catch::Matchers::Impl::MatcherBase< std::string >`, `Catch::Matchers::Impl::MatcherBase< std::vector< T > >`

Public Functions

MatcherUntypedBase () = default

MatcherUntypedBase (*MatcherUntypedBase* const&) = default

MatcherUntypedBase &**operator=** (*MatcherUntypedBase* const&) = delete

std::string **toString** () const

Protected Functions

virtual ~**MatcherUntypedBase** ()

virtual std::string **describe** () const = 0

Protected Attributes

mutable std::string **m_cachedToString**

Template Class MatchExpr

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Inheritance Relationships

Base Type

- public Catch::ITransientExpression (*Struct ITransientExpression*)

Class Documentation

```
template<typename ArgT, typename MatcherT>
class Catch::MatchExpr : public Catch::ITransientExpression
```

Public Functions

```
inline MatchExpr (ArgT const &arg, MatcherT const &matcher, StringRef const &matcher-
                  String)
inline virtual void streamReconstructedExpression (std::ostream &os) const
                                                    override
```

Class NonCopyable

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Inheritance Relationships

Derived Types

- public Catch::AutoReg (*Struct AutoReg*)
- private Catch::Section (*Class Section*)

Class Documentation

```
class Catch::NonCopyable
    Subclassed by Catch::AutoReg, Catch::Section
```

Protected Functions

```
NonCopyable ()
virtual ~NonCopyable ()
```

Class ReusableStringStream

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Class Documentation

```
class Catch::ReusableStringStream
```

Public Functions

```
ReusableStringStream ()
~ReusableStringStream ()
auto str () const -> std::string
template<typename T>
inline auto operator<< (T const &value) -> ReusableStringStream&
inline auto get () -> std::ostream&
```

Class ScopedMessage

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Class Documentation

```
class Catch::ScopedMessage
```

Public Functions

```
explicit ScopedMessage (MessageBuilder const &builder)
~ScopedMessage ()
```

Public Members

```
MessageInfo m_info
```

Class Section

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Inheritance Relationships

Base Type

- private Catch::NonCopyable (*Class NonCopyable*)

Class Documentation

```
class Catch::Section: private Catch::NonCopyable
```

Public Functions

```
Section (SectionInfo const &info)
~Section ()
explicit operator bool () const
```

Class StringRef

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Class Documentation

```
class Catch::StringRef
```

A non-owning string class (similar to the forthcoming std::string_view) Note that, because a *StringRef* may be a substring of another string, it may not be null terminated. c_str() must return a null terminated string, however, and so the *StringRef* will internally take ownership (taking a copy), if necessary. In theory this ownership is not externally visible - but it does mean (substring) StringRefs should not be shared between threads.

Public Types

```
using size_type = std::size_t
```

Public Functions

```
inline StringRef () noexcept
inline StringRef (StringRef const &other) noexcept
inline StringRef (StringRef &&other) noexcept
StringRef (char const *rawChars) noexcept
inline StringRef (char const *rawChars, size_type size) noexcept
inline StringRef (std::string const &stdString) noexcept
```

```

inline ~StringRef () noexcept
inline auto operator= (StringRef const &other) noexcept -> StringRef&
operator std::string () const
void swap (StringRef &other) noexcept
auto operator== (StringRef const &other) const noexcept -> bool
auto operator!= (StringRef const &other) const noexcept -> bool
auto operator[] (size_type index) const noexcept -> char
inline auto empty () const noexcept -> bool
inline auto size () const noexcept -> size_type
auto numberOfCharacters () const noexcept -> size_type
auto c_str () const -> char const*
auto substr (size_type start, size_type size) const noexcept -> StringRef
auto currentData () const noexcept -> char const*

```

Class TestCase

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Inheritance Relationships

Base Type

- public Catch::TestCaseInfo (*Struct TestCaseInfo*)

Class Documentation

```
class Catch::TestCase : public Catch::TestCaseInfo
```

Public Functions

```

TestCase (ITestInvoker *testCase, TestCaseInfo &&info)
TestCase withName (std::string const &_newName) const
void invoke () const
TestCaseInfo const &getTestCaseInfo () const
bool operator== (TestCase const &other) const
bool operator< (TestCase const &other) const

```

Template Class TestInvokerAsMethod

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Inheritance Relationships

Base Type

- public Catch::ITestInvoker (*Struct ITestInvoker*)

Class Documentation

```
template<typename C>  
class Catch::TestInvokerAsMethod : public Catch::ITestInvoker
```

Public Functions

```
inline TestInvokerAsMethod (void (C::* testAsMethod))  
    noexcept  
inline virtual void invoke () const override
```

Class Timer

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Class Documentation

```
class Catch::Timer
```

Public Functions

```
void start ()  
auto getElapsedNanoseconds () const -> uint64_t  
auto getElapsedMicroseconds () const -> uint64_t  
auto getElapsedMilliseconds () const -> unsigned int  
auto getElapsedSeconds () const -> double
```

Template Class UnaryExpr

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Inheritance Relationships

Base Type

- public Catch::ITransientExpression (*Struct ITransientExpression*)

Class Documentation

```
template<typename LhsT>
class Catch::UnaryExpr : public Catch::ITransientExpression
```

Public Functions

```
inline explicit UnaryExpr (LhsT lhs)
```

Template Class AssignID

- Defined in file_latest_rmf_utils_include_rmf_utils_AssignID.hpp

Class Documentation

```
template<typename T>
class rmf_utils::AssignID
```

Public Functions

```
inline AssignID (T initial_value = 0)
inline T assign () const
inline void fast_forward_to (const T desired_value) const
```

Template Class clone_ptr

- Defined in file_latest_rmf_utils_include_rmf_utils_clone_ptr.hpp

Class Documentation

```
template<typename T>
class rmf_utils::clone_ptr
```

Public Functions

```
inline clone_ptr ()
inline explicit clone_ptr (T *ptr)
inline clone_ptr (std::nullptr_t)
inline clone_ptr (const clone_ptr &other)
template<typename U>
inline clone_ptr (const clone_ptr<U> &other)
inline clone_ptr (clone_ptr &&other)
template<typename U>
inline clone_ptr (clone_ptr<U> &&other)
inline clone_ptr &operator= (const clone_ptr &other)
template<typename U>
inline clone_ptr &operator= (const clone_ptr<U> &other)
inline clone_ptr &operator= (clone_ptr &&other)
template<typename U>
inline clone_ptr &operator= (clone_ptr<U> &&other)
inline T *get () const
inline T *release ()
inline T &operator* () const
inline T *operator-> () const
inline operator bool () const
inline bool operator== (const clone_ptr &other) const
inline bool operator== (std::nullptr_t) const
inline bool operator!= (const clone_ptr &other) const
inline bool operator!= (std::nullptr_t) const
inline bool operator< (const clone_ptr &other) const
inline bool operator> (const clone_ptr &other) const
inline bool operator<= (const clone_ptr &other) const
inline bool operator>= (const clone_ptr &other) const
```


Template Class Cloneable

- Defined in file_latest_rmf_utils_include_rmf_utils_clone_ptr.hpp

Class Documentation

```
template<typename T>
class rmf_utils::Cloneable
```

Public Functions

```
virtual std::unique_ptr<T> clone () const = 0
```

Template Class impl_ptr

- Defined in file_latest_rmf_utils_include_rmf_utils_impl_ptr.hpp

Inheritance Relationships

Base Type

- public rmf_utils::unique_impl_ptr< T, Deleter > (*Template Class unique_impl_ptr*)

Class Documentation

```
template<class T, class Deleter = details::default_deleter_t<T>, class Copier = details::default_copier_t<T>>
class rmf_utils::impl_ptr : public rmf_utils::unique_impl_ptr<T, Deleter>
```

Public Types

```
using pointer = typename base_type::pointer
using const_pointer = typename base_type::const_pointer
using reference = typename base_type::reference
using const_reference = typename base_type::const_reference
using element_type = typename base_type::element_type
using deleter_type = typename base_type::deleter_type
using unique_ptr_type = typename base_type::unique_ptr_type
using copier_type = typename std::decay<Copier>::type
using is_default_manageable = details::is_default_manageable<T, deleter_type, copier_type>
```

Public Functions

```
inline constexpr impl_ptr() noexcept

inline constexpr impl_ptr(std::nullptr_t) noexcept

template<class D, class C>
inline impl_ptr(pointer p, D && d, C && c, typename std::enable_if<std::is_convertible<D,
    deleter_type>::value && std::is_convertible<C, copier_type>::value, typename
    base_type::dummy_t_>::type = typename base_type::dummy_t_()) noexcept

template<class U>
inline impl_ptr(U *u, typename std::enable_if<std::is_convertible<U*, pointer>::value &&
    is_default_manageable::value, dummy_t_>::type = dummy_t_()) noexcept

inline impl_ptr(const impl_ptr &r)

impl_ptr(impl_ptr &&r) noexcept = default

template<class U>
inline impl_ptr(std::unique_ptr<U> && u, typename std::enable_if<std::is_convertible<U*,
    pointer>::value && is_default_manageable::value, dummy_t_>::type =
    dummy_t_()) noexcept

template<class U, class D, class C>
inline impl_ptr(std::unique_ptr<U, D> && u, C && c, typename
    std::enable_if<std::is_convertible<U*, pointer>::value && std::is_convertible<D,
    deleter_type>::value, dummy_t_>::type = dummy_t_()) noexcept

template<class U, class D, class C>
inline impl_ptr(impl_ptr<U, D, C> && u, typename std::enable_if<std::is_convertible<U*,
    pointer>::value && std::is_convertible<D, deleter_type>::value, dummy_t_>::type
    = dummy_t_()) noexcept

inline impl_ptr &operator= (const impl_ptr &r)

impl_ptr &operator= (impl_ptr &&r) noexcept = default

template<class U, class D, class C>
inline std::enable_if<std::is_convertible<U*, pointer>::value && std::is_convertible<D, deleter_type>::value && std::is_convertible<C, copier_type>::value,
    typename base_type::dummy_t_>::type &operator= (const impl_ptr &r) noexcept

template<class U>
inline std::enable_if<std::is_convertible<U*, pointer>::value && is_default_manageable::value, impl_ptr &>::type &operator= (const impl_ptr &r) noexcept

template<class U, class D, class C>
inline std::enable_if<std::is_convertible<U*, pointer>::value && std::is_convertible<D, deleter_type>::value && std::is_convertible<C, copier_type>::value,
    typename base_type::dummy_t_>::type &operator= (const impl_ptr &r) noexcept

inline void swap(impl_ptr &u) noexcept

inline impl_ptr clone() const

inline const std::remove_reference<copier_type>::type &get_copier() const noexcept

inline std::remove_reference<copier_type>::type &get_copier() noexcept
```

Template Class Modular

- Defined in file_latest_rmf_utils_include_rmf_utils_Modular.hpp

Class Documentation

template<typename **V**>

class rmf_utils::Modular

This class allows us to correctly handle version number overflow. Since the schedule needs to continue running for an arbitrarily long time, we cannot expect its versions numbers to get reset before it reaches the limit of its integer representation. This class allows us to compare version numbers that could have overflowed at some point.

Public Functions

inline Modular (*V basis*)

inline bool less_than (**const** *V rhs*) **const**

Compare rhs (right-hand side of the less-than comparison) directly to the basis value. This comparison is only permitted if the value of rhs is within half of the maximum modular distance of the basis. If rhs is further than that distance from the basis (either from above or below) then an exception will be thrown.

inline bool less_than_or_equal (**const** *V rhs*) **const**

Modify less(V) to also return true when equal.

inline bool less_than (**const** *V lhs*, **const** *V rhs*) **const**

Compare lhs (left-hand side) to rhs (right-hand side), and return true if and only if lhs is less than rhs.

This assumes that both lhs and rhs are greater than the basis, i.e. neither of these values has spilled past (overlapped) the basis value. This assumption allows us to do this comparison without any risk of an exception.

inline bool less_than_or_equal (**const** *V lhs*, **const** *V rhs*) **const**

Modify less(V, V) to also return true when lhs and rhs are equal.

Class RateLimiter

- Defined in file_latest_rmf_utils_include_rmf_utils_RateLimiter.hpp

Class Documentation

class rmf_utils::RateLimiter

A class used to track limits in the rate at which an event may occur. A counter will increment each time reached_limit() is called within a time period.

If the counter reaches its limit then reached_limit() will return true.

If the counter has not reached its limit then reached_limit() will return false.

If reached_limit() is called again after the period limit has passed, then the time period will be reset and the function will return false.

Public Functions

RateLimiter (std::chrono::steady_clock::duration *period_limit_*, std::size_t *count_limit_*)
Constructor

Parameters

- [in] *period_limit_*: How long between events before the counter is reset to zero
- [in] *count_limit_*: How high the counter can reach before check() returns false

bool **reached_limit** () const

std::chrono::steady_clock::duration **period_limit** () const

RateLimiter &**period_limit** (std::chrono::steady_clock::duration *new_limit*)

std::size_t **count_limit** () const

RateLimiter &**count_limit** (std::size_t *new_limit*)

Template Class unique_impl_ptr

- Defined in file_latest_rmf_utils_include_rmf_utils_impl_ptr.hpp

Nested Relationships

Nested Types

- *Struct unique_impl_ptr::dummy_t_*

Inheritance Relationships

Derived Type

- public rmf_utils::impl_ptr< T, Deleter, Copier > (*Template Class impl_ptr*)

Class Documentation

template<class **T**, class **Deleter** = details::default_deleter_t<T>>

class rmf_utils::unique_impl_ptr

Subclassed by *rmf_utils::impl_ptr< T, Deleter, Copier >*

Public Types

```
using pointer = T*
using const_pointer = typename std::add_const<T>::type*
using reference = T&
using const_reference = typename std::add_const<T>::type&
using element_type = T
using deleter_type = typename std::decay<Deleter>::type
using unique_ptr_type = std::unique_ptr<T, deleter_type>
using is_default_manageable = details::is_default_manageable<T, deleter_type>
```

Public Functions

```
inline constexpr unique_impl_ptr() noexcept
inline constexpr unique_impl_ptr(std::nullptr_t) noexcept
template<class D>
inline unique_impl_ptr(pointer p, D && d, typename std::enable_if<std::is_convertible<D,
    deleter_type>::value, dummy_t_>::type = dummy_t_()) noexcept
template<class U>
inline unique_impl_ptr(U *u, typename std::enable_if<std::is_convertible<U*,
    pointer>::value && is_default_manageable::value, dummy_t_>::type =
    dummy_t_()) noexcept
unique_impl_ptr(unique_impl_ptr && r) noexcept = default
template<class U>
inline unique_impl_ptr(std::unique_ptr<U> && u, typename
    std::enable_if<std::is_convertible<U*, pointer>::value &&
    is_default_manageable::value, dummy_t_>::type = dummy_t_())
    noexcept
template<class U, class D>
inline unique_impl_ptr(std::unique_ptr<U, D> && u, typename
    std::enable_if<std::is_convertible<U*, pointer>::value &&
    std::is_convertible<D, deleter_type>::value, dummy_t_>::type =
    dummy_t_()) noexcept
template<class U, class D>
inline unique_impl_ptr(unique_impl_ptr<U, D> && u, typename
    std::enable_if<std::is_convertible<U*, pointer>::value &&
    std::is_convertible<D, deleter_type>::value, dummy_t_>::type =
    dummy_t_()) noexcept
unique_impl_ptr(const unique_impl_ptr<T, Deleter> &) = delete
unique_impl_ptr & operator= (unique_impl_ptr && r) noexcept = default
template<class U>
inline std::enable_if<std::is_convertible<U*, pointer>::value && is_default_manageable::value, unique_impl_ptr &>::type op
reference operator= (const unique_impl_ptr<T, Deleter> &) = delete
```

```
inline reference operator* ()
inline const_reference operator* () const
inline pointer operator-> () noexcept
inline const_pointer operator-> () const noexcept
inline pointer get () noexcept
inline const_pointer get () const noexcept
inline void swap (unique_impl_ptr &u) noexcept
inline pointer release () noexcept
inline unique_ptr_type release_unique () noexcept
inline explicit operator bool () const noexcept
inline std::remove_reference<deleter_type>::type &get_deleter () noexcept
inline const std::remove_reference<deleter_type>::type &get_deleter () const noexcept
```

Protected Attributes

```
unique_ptr_type ptr_
struct dummy_t_
```

Public Members

```
int dummy__
```

1.2.3 Functions

Function Catch::cerr

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

```
std::ostream &Catch:::cerr ()
```

Function Catch::cleanUp

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

void Catch::cleanup()

Function Catch::clog

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

std::ostream &Catch::clog()

Template Function Catch::compareEqual(LhsT const&, RhsT const&)

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

Warning: doxygenfunction: Unable to resolve function “Catch::compareEqual” with arguments (LhsT const&, RhsT const&) in doxygen xml output for project “rmf_utils” from directory: _build/doxygen/xml. Potential matches:

```
- template<typename LhsT, typename RhsT> auto compareEqual(LhsT const &lhs, RhsT_
↪const &rhs) -> bool
- template<typename T> auto compareEqual(T *const &lhs, int rhs) -> bool
- template<typename T> auto compareEqual(T *const &lhs, long rhs) -> bool
- template<typename T> auto compareEqual(int lhs, T *const &rhs) -> bool
- template<typename T> auto compareEqual(long lhs, T *const &rhs) -> bool
```

Template Function Catch::compareEqual(T *const&, int)

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

Warning: doxygenfunction: Unable to resolve function “Catch::compareEqual” with arguments (T*const&, int) in doxygen xml output for project “rmf_utils” from directory: _build/doxygen/xml. Potential matches:

```
- template<typename LhsT, typename RhsT> auto compareEqual(LhsT const &lhs, RhsT_
↪const &rhs) -> bool
- template<typename T> auto compareEqual(T *const &lhs, int rhs) -> bool
- template<typename T> auto compareEqual(T *const &lhs, long rhs) -> bool
- template<typename T> auto compareEqual(int lhs, T *const &rhs) -> bool
- template<typename T> auto compareEqual(long lhs, T *const &rhs) -> bool
```

Template Function Catch::compareEqual(T *const&, long)

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

Warning: doxygenfunction: Unable to resolve function “Catch::compareEqual” with arguments (T*const&, long) in doxygen xml output for project “rmf_utils” from directory: _build/doxygen/xml. Potential matches:

```
- template<typename LhsT, typename RhstT> auto compareEqual(LhsT const &lhs, RhstT_
  ↳const &rhs) -> bool
- template<typename T> auto compareEqual(T *const &lhs, int rhs) -> bool
- template<typename T> auto compareEqual(T *const &lhs, long rhs) -> bool
- template<typename T> auto compareEqual(int lhs, T *const &rhs) -> bool
- template<typename T> auto compareEqual(long lhs, T *const &rhs) -> bool
```

Template Function Catch::compareEqual(int, T *const&)

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

Warning: doxygenfunction: Unable to resolve function “Catch::compareEqual” with arguments (int, T*const&) in doxygen xml output for project “rmf_utils” from directory: _build/doxygen/xml. Potential matches:

```
- template<typename LhsT, typename RhstT> auto compareEqual(LhsT const &lhs, RhstT_
  ↳const &rhs) -> bool
- template<typename T> auto compareEqual(T *const &lhs, int rhs) -> bool
- template<typename T> auto compareEqual(T *const &lhs, long rhs) -> bool
- template<typename T> auto compareEqual(int lhs, T *const &rhs) -> bool
- template<typename T> auto compareEqual(long lhs, T *const &rhs) -> bool
```

Template Function Catch::compareEqual(long, T *const&)

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

Warning: doxygenfunction: Unable to resolve function “Catch::compareEqual” with arguments (long, T*const&) in doxygen xml output for project “rmf_utils” from directory: _build/doxygen/xml. Potential matches:

```
- template<typename LhsT, typename RhstT> auto compareEqual(LhsT const &lhs, RhstT_
  ↳const &rhs) -> bool
- template<typename T> auto compareEqual(T *const &lhs, int rhs) -> bool
- template<typename T> auto compareEqual(T *const &lhs, long rhs) -> bool
- template<typename T> auto compareEqual(int lhs, T *const &rhs) -> bool
- template<typename T> auto compareEqual(long lhs, T *const &rhs) -> bool
```


Template Function Catch::compareNotEqual(LhsT const&, RhsT&&)

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

Warning: doxygenfunction: Unable to resolve function “Catch::compareNotEqual” with arguments (LhsT const&, RhsT&&) in doxygen xml output for project “rmf_utils” from directory: _build/doxygen/xml. Potential matches:

```
- template<typename LhsT, typename RhsT> auto compareNotEqual(LhsT const &lhs, RhsT_
  ↪&&rhs) -> bool
- template<typename T> auto compareNotEqual(T *const &lhs, int rhs) -> bool
- template<typename T> auto compareNotEqual(T *const &lhs, long rhs) -> bool
- template<typename T> auto compareNotEqual(int lhs, T *const &rhs) -> bool
- template<typename T> auto compareNotEqual(long lhs, T *const &rhs) -> bool
```

Template Function Catch::compareNotEqual(T *const&, int)

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

Warning: doxygenfunction: Unable to resolve function “Catch::compareNotEqual” with arguments (T*const&, int) in doxygen xml output for project “rmf_utils” from directory: _build/doxygen/xml. Potential matches:

```
- template<typename LhsT, typename RhsT> auto compareNotEqual(LhsT const &lhs, RhsT_
  ↪&&rhs) -> bool
- template<typename T> auto compareNotEqual(T *const &lhs, int rhs) -> bool
- template<typename T> auto compareNotEqual(T *const &lhs, long rhs) -> bool
- template<typename T> auto compareNotEqual(int lhs, T *const &rhs) -> bool
- template<typename T> auto compareNotEqual(long lhs, T *const &rhs) -> bool
```

Template Function Catch::compareNotEqual(T *const&, long)

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

Warning: doxygenfunction: Unable to resolve function “Catch::compareNotEqual” with arguments (T*const&, long) in doxygen xml output for project “rmf_utils” from directory: _build/doxygen/xml. Potential matches:

```
- template<typename LhsT, typename RhsT> auto compareNotEqual(LhsT const &lhs, RhsT_
↳&&rhs) -> bool
- template<typename T> auto compareNotEqual(T *const &lhs, int rhs) -> bool
- template<typename T> auto compareNotEqual(T *const &lhs, long rhs) -> bool
- template<typename T> auto compareNotEqual(int lhs, T *const &rhs) -> bool
- template<typename T> auto compareNotEqual(long lhs, T *const &rhs) -> bool
```

Template Function Catch::compareNotEqual(int, T *const&)

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

Warning: doxygenfunction: Unable to resolve function “Catch::compareNotEqual” with arguments (int, T*const&) in doxygen xml output for project “rmf_utils” from directory: _build/doxygen/xml. Potential matches:

```
- template<typename LhsT, typename RhsT> auto compareNotEqual(LhsT const &lhs, RhsT_
↳&&rhs) -> bool
- template<typename T> auto compareNotEqual(T *const &lhs, int rhs) -> bool
- template<typename T> auto compareNotEqual(T *const &lhs, long rhs) -> bool
- template<typename T> auto compareNotEqual(int lhs, T *const &rhs) -> bool
- template<typename T> auto compareNotEqual(long lhs, T *const &rhs) -> bool
```

Template Function Catch::compareNotEqual(long, T *const&)

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

Warning: doxygenfunction: Unable to resolve function “Catch::compareNotEqual” with arguments (long, T*const&) in doxygen xml output for project “rmf_utils” from directory: _build/doxygen/xml. Potential matches:

```
- template<typename LhsT, typename RhsT> auto compareNotEqual(LhsT const &lhs, RhsT_
↳&&rhs) -> bool
- template<typename T> auto compareNotEqual(T *const &lhs, int rhs) -> bool
- template<typename T> auto compareNotEqual(T *const &lhs, long rhs) -> bool
- template<typename T> auto compareNotEqual(int lhs, T *const &rhs) -> bool
- template<typename T> auto compareNotEqual(long lhs, T *const &rhs) -> bool
```

Function Catch::contains

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

bool Catch::contains (std::string const &s, std::string const &infix)

Function Catch::cout

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

std::ostream &Catch::cout ()

Template Function Catch::Detail::convertUnknownEnumToString

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

template<typename E>
std::string Catch::Detail::convertUnknownEnumToString (E e)

Template Function Catch::Detail::convertUnstreamable(T const&)

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

Warning: doxygenfunction: Unable to resolve function “Catch::Detail::convertUnstreamable” with arguments (T const&) in doxygen xml output for project “rmf_utils” from directory: _build/doxygen/xml. Potential matches:

```
- template<typename T> std::enable_if<!std::is_enum<T>::value && !std::is_base_of
  ↳<std::exception, T>::value, std::string>::type convertUnstreamable(T const&)
- template<typename T> std::enable_if<!std::is_enum<T>::value && std::is_base_of
  ↳<std::exception, T>::value, std::string>::type convertUnstreamable(T const &ex)
- template<typename T> std::enable_if<std::is_enum<T>::value, std::string>::type_
  ↳convertUnstreamable(T const &value)
```

Template Function Catch::Detail::convertUnstreamable(T const&)

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

Warning: doxygenfunction: Unable to resolve function “Catch::Detail::convertUnstreamable” with arguments (T const&) in doxygen xml output for project “rmf_utils” from directory: _build/doxygen/xml. Potential matches:

```
- template<typename T> std::enable_if<!std::is_enum<T>::value && !std::is_base_of
↳<std::exception, T>::value, std::string>::type convertUnstreamable(T const&)
- template<typename T> std::enable_if<!std::is_enum<T>::value && std::is_base_of
↳<std::exception, T>::value, std::string>::type convertUnstreamable(T const &ex)
- template<typename T> std::enable_if<std::is_enum<T>::value, std::string>::type_
↳convertUnstreamable(T const &value)
```

Template Function Catch::Detail::convertUnstreamable(T const&)

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

Warning: doxygenfunction: Unable to resolve function “Catch::Detail::convertUnstreamable” with arguments (T const&) in doxygen xml output for project “rmf_utils” from directory: _build/doxygen/xml. Potential matches:

```
- template<typename T> std::enable_if<!std::is_enum<T>::value && !std::is_base_of
↳<std::exception, T>::value, std::string>::type convertUnstreamable(T const&)
- template<typename T> std::enable_if<!std::is_enum<T>::value && std::is_base_of
↳<std::exception, T>::value, std::string>::type convertUnstreamable(T const &ex)
- template<typename T> std::enable_if<std::is_enum<T>::value, std::string>::type_
↳convertUnstreamable(T const &value)
```

Template Function Catch::Detail::rangeToString

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

```
template<typename InputIterator>
std::string Catch::Detail::rangeToString(InputIterator first, InputIterator last)
```

Function Catch::Detail::rawMemoryToString(const void *, std::size_t)

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

std::string Catch::Detail::rawMemoryToString(const void **object*, std::size_t *size*)

Template Function Catch::Detail::rawMemoryToString(const T&)

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

template<typename **T**>
std::string Catch::Detail::rawMemoryToString(const *T* &*object*)

Template Function Catch::Detail::stringify

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

template<typename **T**>
std::string Catch::Detail::stringify(const *T* &*e*)

Function Catch::endsWith(std::string const&, std::string const&)

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

bool Catch::endsWith(std::string const &*s*, std::string const &*suffix*)

Function Catch::endsWith(std::string const&, char)

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

`bool Catch::endsWith (std::string const &s, char suffix)`

Function Catch::filterTests

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

`std::vector<TestCase> Catch::filterTests (std::vector<TestCase> const &testCases, TestSpec const &testSpec, IConfig const &config)`

Function Catch::formatReconstructedExpression

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

`void Catch::formatReconstructedExpression (std::ostream &os, std::string const &lhs, StringRef op, std::string const &rhs)`

Function Catch::Generators::acquireGeneratorTracker

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

Warning: doxygenfunction: Unable to resolve function “Catch::Generators::acquireGeneratorTracker” with arguments (SourceLineInfo const&) in doxygen xml output for project “rmf_utils” from directory: _build/doxygen/xml. Potential matches:

```
- auto acquireGeneratorTracker (SourceLineInfo const &lineInfo) -> IGeneratorTracker&
```

Template Function Catch::Generators::all

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

Warning: doxygenfunction: Unable to resolve function “Catch::Generators::all” with arguments () in doxygen xml output for project “rmf_utils” from directory: _build/doxygen/xml. Potential matches:

```
- template<typename T> auto all() -> Generator<T>
```

Function Catch::Generators::all< int >

Function Documentation

Warning: doxygenfunction: Unable to resolve function “Catch::Generators::all< int >” with arguments () in doxygen xml output for project “rmf_utils” from directory: _build/doxygen/xml. Potential matches:

```
- template<> auto all<int>() -> Generator<int>
```

Template Function Catch::Generators::as

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

Warning: doxygenfunction: Unable to resolve function “Catch::Generators::as” with arguments () in doxygen xml output for project “rmf_utils” from directory: _build/doxygen/xml. Potential matches:

```
- template<typename T> auto as() -> Generator<T>
```

Template Function Catch::Generators::generate

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

Warning: doxygenfunction: Unable to resolve function “Catch::Generators::generate” with arguments (SourceLineInfo const&, L const&) in doxygen xml output for project “rmf_utils” from directory: _build/doxygen/xml. Potential matches:

```
- template<typename L> auto generate(SourceLineInfo const &lineInfo, L const &
  ↳ generatorExpression) -> decltype(std::declval<decltype(generatorExpression())>
  ↳ () [0])
```

Template Function Catch::Generators::makeGenerators(Generator<T>&&, Gs...)

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

Warning: doxygenfunction: Unable to resolve function “Catch::Generators::makeGenerators” with arguments (Generator<T>&&, Gs...) in doxygen xml output for project “rmf_utils” from directory: _build/doxygen/xml. Potential matches:

```
- template<typename T, typename ...Gs> auto makeGenerators(Generator<T> &&generator,  
→ Gs... moreGenerators) -> Generators<T>  
- template<typename T, typename ...Gs> auto makeGenerators(T &&val, Gs...  
→ moreGenerators) -> Generators<T>  
- template<typename T, typename U, typename ...Gs> auto makeGenerators(U &&val, Gs..  
→ . moreGenerators) -> Generators<T>  
- template<typename T> auto makeGenerators(Generator<T> &&generator) -> Generators  
→ <T>
```

Template Function Catch::Generators::makeGenerators(Generator<T>&&)

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

Warning: doxygenfunction: Unable to resolve function “Catch::Generators::makeGenerators” with arguments (Generator<T>&&) in doxygen xml output for project “rmf_utils” from directory: _build/doxygen/xml. Potential matches:

```
- template<typename T, typename ...Gs> auto makeGenerators(Generator<T> &&generator,  
→ Gs... moreGenerators) -> Generators<T>  
- template<typename T, typename ...Gs> auto makeGenerators(T &&val, Gs...  
→ moreGenerators) -> Generators<T>  
- template<typename T, typename U, typename ...Gs> auto makeGenerators(U &&val, Gs..  
→ . moreGenerators) -> Generators<T>  
- template<typename T> auto makeGenerators(Generator<T> &&generator) -> Generators  
→ <T>
```

Template Function Catch::Generators::makeGenerators(T&&, Gs...)

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

Warning: doxygenfunction: Unable to resolve function “Catch::Generators::makeGenerators” with arguments (T&&, Gs...) in doxygen xml output for project “rmf_utils” from directory: _build/doxygen/xml. Potential matches:

```
- template<typename T, typename ...Gs> auto makeGenerators(Generator<T> &&generator,
↳ Gs... moreGenerators) -> Generators<T>
- template<typename T, typename ...Gs> auto makeGenerators(T &&val, Gs...↳
↳moreGenerators) -> Generators<T>
- template<typename T, typename U, typename ...Gs> auto makeGenerators(U &&val, Gs..
↳. moreGenerators) -> Generators<T>
- template<typename T> auto makeGenerators(Generator<T> &&generator) -> Generators
↳<T>
```

Template Function Catch::Generators::makeGenerators(U&&, Gs...)

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

Warning: doxygenfunction: Unable to resolve function “Catch::Generators::makeGenerators” with arguments (U&&, Gs...) in doxygen xml output for project “rmf_utils” from directory: _build/doxygen/xml. Potential matches:

```
- template<typename T, typename ...Gs> auto makeGenerators(Generator<T> &&generator,
↳ Gs... moreGenerators) -> Generators<T>
- template<typename T, typename ...Gs> auto makeGenerators(T &&val, Gs...↳
↳moreGenerators) -> Generators<T>
- template<typename T, typename U, typename ...Gs> auto makeGenerators(U &&val, Gs..
↳. moreGenerators) -> Generators<T>
- template<typename T> auto makeGenerators(Generator<T> &&generator) -> Generators
↳<T>
```

Template Function Catch::Generators::pf::make_unique

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

template<typename T, typename ...Args>

std::unique_ptr<T> Catch::Generators::pf::make_unique(Args&&... args)

Template Function Catch::Generators::random(T const&, T const&)

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

Warning: doxygenfunction: Unable to resolve function “Catch::Generators::random” with arguments (T const&, T const&) in doxygen xml output for project “rmf_utils” from directory: _build/doxygen/xml. Potential matches:

```
- template<typename T> auto random(T const &first, T const &last) -> Generator<T>
- template<typename T> auto random(size_t size) -> Generator<T>
```

Template Function Catch::Generators::random(size_t)

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

Warning: doxygenfunction: Unable to resolve function “Catch::Generators::random” with arguments (size_t) in doxygen xml output for project “rmf_utils” from directory: _build/doxygen/xml. Potential matches:

```
- template<typename T> auto random(T const &first, T const &last) -> Generator<T>
- template<typename T> auto random(size_t size) -> Generator<T>
```

Function Catch::Generators::randomiseIndices

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

std::vector<size_t> Catch::Generators::randomiseIndices (size_t *selectionSize*, size_t *sourceSize*)

Template Function Catch::Generators::range

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

Warning: doxygenfunction: Unable to resolve function “Catch::Generators::range” with arguments (T const&, T const&) in doxygen xml output for project “rmf_utils” from directory: _build/doxygen/xml. Potential matches:

```
- template<typename T> auto range(T const &first, T const &last) -> Generator<T>
```

Template Function Catch::Generators::table

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

Warning: doxygenfunction: Unable to resolve function “Catch::Generators::table” with arguments (std::initializer_list<std::tuple<Ts...>>&&) in doxygen xml output for project “rmf_utils” from directory: _build/doxygen/xml. Potential matches:

```
- template<typename ...Ts> auto table(std::initializer_list<std::tuple<Ts...>> &&  
→ tuples) -> Generator<std::tuple<Ts...>>
```

Template Function Catch::Generators::value

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

Warning: doxygenfunction: Unable to resolve function “Catch::Generators::value” with arguments (T const&) in doxygen xml output for project “rmf_utils” from directory: _build/doxygen/xml. Potential matches:

```
- template<typename T> auto value(T const &val) -> Generator<T>
```

Template Function Catch::Generators::values

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

Warning: doxygenfunction: Unable to resolve function “Catch::Generators::values” with arguments (std::initializer_list<T>) in doxygen xml output for project “rmf_utils” from directory: _build/doxygen/xml. Potential matches:

```
- template<typename T> auto values(std::initializer_list<T> values) -> Generator<T>
```

Function Catch::getAllTestCasesSorted

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

std::vector<TestCase> const &Catch::getAllTestCasesSorted (IConfig const &config)

Function Catch::getCurrentNanosecondsSinceEpoch

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

Warning: doxygenfunction: Unable to resolve function “Catch::getCurrentNanosecondsSinceEpoch” with arguments () in doxygen xml output for project “rmf_utils” from directory: _build/doxygen/xml. Potential matches:

```
- auto getCurrentNanosecondsSinceEpoch() -> uint64_t
```

Function Catch::getEstimatedClockResolution

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

Warning: doxygenfunction: Unable to resolve function “Catch::getEstimatedClockResolution” with arguments () in doxygen xml output for project “rmf_utils” from directory: _build/doxygen/xml. Potential matches:

```
- auto getEstimatedClockResolution() -> uint64_t
```

Function Catch::getMutableRegistryHub

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

IMutableRegistryHub &Catch::getMutableRegistryHub()

Function Catch::getRegistryHub

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

IRegistryHub const &Catch::getRegistryHub()

Function Catch::getResultCapture

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

IResultCapture &Catch::getResultCapture()

Function Catch::handleExceptionMatchExpr(AssertionHandler&, std::string const&, StringRef const&)

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

void Catch::handleExceptionMatchExpr(*AssertionHandler* &handler, std::string const &str, *StringRef* const &matcherString)

Function Catch::handleExceptionMatchExpr(AssertionHandler&, StringMatcher const&, StringRef const&)

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

void Catch::handleExceptionMatchExpr (AssertionHandler &handler, StringMatcher const &matcher, StringRef const &matcherString)

Function Catch::handleExpression(ITransientExpression const&)

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

void Catch::handleExpression (ITransientExpression const &expr)

Template Function Catch::handleExpression(ExprLhs<T> const&)

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

template<typename T>
void Catch::handleExpression (ExprLhs<T> const &expr)

Function Catch::isFalseTest

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

inline bool Catch::isFalseTest (int flags)

Function Catch::isJustInfo

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

bool Catch::isJustInfo (int flags)

Function Catch::isOk

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

bool Catch::isOk (*ResultWas::OfType* resultType)

Function Catch::literals::operator""_a(long double)

Function Documentation

Detail::Approx Catch::literals::operator""_a (long double *val*)

Function Catch::literals::operator""_a(unsigned long long)

Function Documentation

Detail::Approx Catch::literals::operator""_a (unsigned long long *val*)

Template Function Catch::makeMatchExpr

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

Warning: doxygenfunction: Unable to resolve function “Catch::makeMatchExpr” with arguments (ArgT const&, MatcherT const&,StringRef const&) in doxygen xml output for project “rmf_utils” from directory: _build/doxygen/xml. Potential matches:

```
- template<typename ArgT, typename MatcherT> auto makeMatchExpr (ArgT const &arg,
↳ MatcherT const &matcher, StringRef const &matcherString) -> MatchExpr<ArgT,
↳ MatcherT>
```

Function Catch::makeStream

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

Warning: doxygenfunction: Unable to resolve function “Catch::makeStream” with arguments (StringRef const&) in doxygen xml output for project “rmf_utils” from directory: _build/doxygen/xml. Potential matches:

```
- auto makeStream(StringRef const &filename) -> IStream const*
```

Function Catch::makeTestCase

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

TestCase Catch::makeTestCase (*ITestInvoker* *testCase, std::string const &className, *NameAndTags* const &nameAndTags, *SourceLineInfo* const &lineInfo)

Function Catch::makeTestInvoker(void(*)())

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

Warning: doxygenfunction: Unable to resolve function “Catch::makeTestInvoker” with arguments (void (*)()) in doxygen xml output for project “rmf_utils” from directory: _build/doxygen/xml. Potential matches:

```
- auto makeTestInvoker(void (*testAsFunction)()) noexcept -> ITestInvoker*  
- template<typename C> auto makeTestInvoker(void (C::* testAsMethod)()) noexcept ->  
  ↳ ITestInvoker*
```

Template Function Catch::makeTestInvoker(void(C::*)())

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

Warning: doxygenfunction: Unable to resolve function “Catch::makeTestInvoker” with arguments (void (C::*)()) in doxygen xml output for project “rmf_utils” from directory: _build/doxygen/xml. Potential matches:

```
- auto makeTestInvoker(void (*testAsFunction)()) noexcept -> ITestInvoker*  
- template<typename C> auto makeTestInvoker(void (C::* testAsMethod)()) noexcept ->  
  ↳ ITestInvoker*
```


Function `Catch::Matchers::Contains(std::string const&, CaseSensitive::Choice)`

- Defined in `file_latest_rmf_utils_include_rmf_utils_catch.hpp`

Function Documentation

`StdString::ContainsMatcher` `Catch::Matchers::Contains` (`std::string const &str`, *CaseSensitive::Choice* *caseSensitivity* = *CaseSensitive::Yes*)

Template Function `Catch::Matchers::Contains(std::vector<T> const&)`

- Defined in `file_latest_rmf_utils_include_rmf_utils_catch.hpp`

Function Documentation

`template<typename T>`
`Vector::ContainsMatcher<T>` `Catch::Matchers::Contains` (`std::vector<T> const &comparator`)

Function `Catch::Matchers::EndsWith`

- Defined in `file_latest_rmf_utils_include_rmf_utils_catch.hpp`

Function Documentation

`StdString::EndsWithMatcher` `Catch::Matchers::EndsWith` (`std::string const &str`, *CaseSensitive::Choice* *caseSensitivity* = *CaseSensitive::Yes*)

Function `Catch::Matchers::Equals(std::string const&, CaseSensitive::Choice)`

- Defined in `file_latest_rmf_utils_include_rmf_utils_catch.hpp`

Function Documentation

`StdString::EqualsMatcher` `Catch::Matchers::Equals` (`std::string const &str`, *CaseSensitive::Choice* *caseSensitivity* = *CaseSensitive::Yes*)

Template Function Catch::Matchers::Equals(std::vector<T> const&)

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

```
template<typename T>
Vector::EqualsMatcher<T> Catch::Matchers::Equals (std::vector<T> const &comparator)
```

Function Catch::Matchers::Generic::Detail::finalizeDescription

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

```
std::string Catch::Matchers::Generic::Detail::finalizeDescription (const std::string
                                                                    &desc)
```

Function Catch::Matchers::Matches

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

```
StdString::RegexMatcher Catch::Matchers::Matches (std::string const &regex, CaseSensi-
                                                    tive::Choice caseSensitivity = CaseSensi-
                                                    tive::Yes)
```

Template Function Catch::Matchers::Predicate

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

```
template<typename T>
Generic::PredicateMatcher<T> Catch::Matchers::Predicate (std::function<bool> T const&
> const &predicate, std::string const &description = "")
```

Function Catch::Matchers::StartsWith

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

StdString::StartsWithMatcher Catch::Matchers::StartsWith (std::string const &str, CaseSensitive::Choice caseSensitivity = CaseSensitive::Yes)

Template Function Catch::Matchers::UnorderedEquals

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

template<typename T>
Vector::UnorderedEqualsMatcher<T> Catch::Matchers::UnorderedEquals (std::vector<T> const &target)

Template Function Catch::Matchers::Vector::Detail::contains

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

template<typename InputIterator, typename T>
bool Catch::Matchers::Vector::Detail::contains (InputIterator first, InputIterator last, T const &item)

Template Function Catch::Matchers::Vector::Detail::count

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

template<typename InputIterator, typename T>
size_t Catch::Matchers::Vector::Detail::count (InputIterator first, InputIterator last, T const &item)

Template Function Catch::Matchers::VectorContains

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

```
template<typename T>
Vector::ContainsElementMatcher<T> Catch::Matchers::VectorContains(T const &compara-
                                                                    tor)
```

Function Catch::Matchers::WithinAbs

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

```
Floating::WithinAbsMatcher Catch::Matchers::WithinAbs(double target, double margin)
```

Function Catch::Matchers::WithinULP(double, int)

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

```
Floating::WithinUlpMatcher Catch::Matchers::WithinULP(double target, int maxUlpDiff)
```

Function Catch::Matchers::WithinULP(float, int)

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

```
Floating::WithinUlpMatcher Catch::Matchers::WithinULP(float target, int maxUlpDiff)
```

Function Catch::matchTest

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

bool Catch::matchTest(*TestCase* const &testCase, TestSpec const &testSpec, IConfig const &config)

Function Catch::operator""_sr

Function Documentation

Warning: doxygenfunction: Unable to resolve function “Catch::operator""_sr” with arguments (char const*, std::size_t) in doxygen xml output for project “rmf_utils” from directory: _build/doxygen/xml. Potential matches:

```
- auto operator""_sr(char const *rawChars, std::size_t size) noexcept -> StringRef
```

Template Function Catch::operator+(T const&, StreamEndStop)

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

template<typename T>

T const &Catch::operator+(T const &value, StreamEndStop)

Function Catch::operator+(StringRef const&, StringRef const&)

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

Warning: doxygenfunction: Unable to resolve function “Catch::operator+” with arguments (StringRef const&, StringRef const&) in doxygen xml output for project “rmf_utils” from directory: _build/doxygen/xml. Potential matches:

```
- auto operator+(StringRef const &lhs, StringRef const &rhs) -> std::string
- auto operator+(StringRef const &lhs, char const *rhs) -> std::string
- auto operator+(char const *lhs, StringRef const &rhs) -> std::string
- template<typename T> T const &operator+(T const &value, StreamEndStop)
```

Function Catch::operator+(StringRef const&, char const *)

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

Warning: doxygenfunction: Unable to resolve function “Catch::operator+” with arguments (StringRef const&, char const*) in doxygen xml output for project “rmf_utils” from directory: _build/doxygen/xml. Potential matches:

```
- auto operator+(StringRef const &lhs, StringRef const &rhs) -> std::string
- auto operator+(StringRef const &lhs, char const *rhs) -> std::string
- auto operator+(char const *lhs, StringRef const &rhs) -> std::string
- template<typename T> T const &operator+(T const &value, StreamEndStop)
```

Function Catch::operator+(char const *, StringRef const&)

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

Warning: doxygenfunction: Unable to resolve function “Catch::operator+” with arguments (char const*, StringRef const&) in doxygen xml output for project “rmf_utils” from directory: _build/doxygen/xml. Potential matches:

```
- auto operator+(StringRef const &lhs, StringRef const &rhs) -> std::string
- auto operator+(StringRef const &lhs, char const *rhs) -> std::string
- auto operator+(char const *lhs, StringRef const &rhs) -> std::string
- template<typename T> T const &operator+(T const &value, StreamEndStop)
```

Function Catch::operator+=

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

Warning: doxygenfunction: Unable to resolve function “Catch::operator+=” with arguments (std::string&, StringRef const&) in doxygen xml output for project “rmf_utils” from directory: _build/doxygen/xml. Potential matches:

```
- auto operator+=(std::string &lhs, StringRef const &sr) -> std::string&
```

Function `Catch::operator<<(std::ostream&, SourceLineInfo const&)`**Function Documentation**

`std::ostream &Catch::operator<<(std::ostream &os, SourceLineInfo const &info)`

Function `Catch::operator<<(std::ostream&, StringRef const&)`**Function Documentation**

Warning: doxygenfunction: Unable to resolve function “Catch::operator<<” with arguments (std::ostream&, StringRef const&) in doxygen xml output for project “rmf_utils” from directory: _build/doxygen/xml. Potential matches:

```
- auto operator<<(std::ostream &os, StringRef const &sr) -> std::ostream&
- std::ostream &operator<<(std::ostream &os, SourceLineInfo const &info)
```

Function `Catch::operator|`

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

ResultDisposition::Flags `Catch::operator|` (*ResultDisposition::Flags* lhs, *ResultDisposition::Flags* rhs)

Template Function `Catch::rangeToString(Range const&)`

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

template<typename **Range**>
std::string `Catch::rangeToString` (*Range* const &range)

Template Function `Catch::rangeToString(std::vector<bool, Allocator> const&)`

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

```
template<typename Allocator>
std::string Catch::rangeToString (std::vector<bool, Allocator> const &v)
```

Function Catch::replaceInPlace

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

```
bool Catch::replaceInPlace (std::string &str, std::string const &replaceThis, std::string const
&withThis)
```

Function Catch::rngSeed

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

```
unsigned int Catch::rngSeed ()
```

Function Catch::shouldContinueOnFailure

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

```
bool Catch::shouldContinueOnFailure (int flags)
```

Function Catch::shouldSuppressFailure

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

```
bool Catch::shouldSuppressFailure (int flags)
```


Function `Catch::startsWith(std::string const&, std::string const&)`

- Defined in `file_latest_rmf_utils_include_rmf_utils_catch.hpp`

Function Documentation

`bool Catch::startsWith` (`std::string const &s`, `std::string const &prefix`)

Function `Catch::startsWith(std::string const&, char)`

- Defined in `file_latest_rmf_utils_include_rmf_utils_catch.hpp`

Function Documentation

`bool Catch::startsWith` (`std::string const &s`, `char prefix`)

Function `Catch::throw_exception`

- Defined in `file_latest_rmf_utils_include_rmf_utils_catch.hpp`

Function Documentation

`void Catch::throw_exception` (`std::exception const &e`)

Function `Catch::toLower`

- Defined in `file_latest_rmf_utils_include_rmf_utils_catch.hpp`

Function Documentation

`std::string Catch::toLower` (`std::string const &s`)

Function `Catch::toLowerInPlace`

- Defined in `file_latest_rmf_utils_include_rmf_utils_catch.hpp`

Function Documentation

`void Catch::toLowerInPlace` (`std::string &s`)

Function Catch::translateActiveException

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

std::string Catch::translateActiveException()

Function Catch::trim

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

std::string Catch::trim(std::string const &str)

Function operator""_catch_sr

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

Warning: doxygenfunction: Unable to resolve function “operator”_catch_sr” with arguments (char const*, std::size_t) in doxygen xml output for project “rmf_utils” from directory: _build/doxygen/xml. Potential matches:

```
- auto operator""_catch_sr(char const *rawChars, std::size_t size) noexcept ->
↳ Catch::StringRef
```

Function operator<<

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Function Documentation

std::ostream &operator<< (std::ostream&, Catch_global_namespace_dummy)

Template Function `rmf_utils::details::default_copy`

- Defined in `file_latest_rmf_utils_include_rmf_utils_impl_ptr.hpp`

Function Documentation

```
template<class T>
T *rmf_utils::details::default_copy (const T *original)
```

Template Function `rmf_utils::details::default_delete`

- Defined in `file_latest_rmf_utils_include_rmf_utils_impl_ptr.hpp`

Function Documentation

```
template<class T>
void rmf_utils::details::default_delete (T *ptr)
```

Template Function `rmf_utils::make_clone`

- Defined in `file_latest_rmf_utils_include_rmf_utils_clone_ptr.hpp`

Function Documentation

```
template<typename T, typename ...Args>
clone_ptr<T> rmf_utils::make_clone (Args&&... args)
```

Template Function `rmf_utils::make_derived_impl`

- Defined in `file_latest_rmf_utils_include_rmf_utils_impl_ptr.hpp`

Function Documentation

```
template<class U, class D, class ...Args>
impl_ptr<U> rmf_utils::make_derived_impl (Args&&... args)
```

Template Function `rmf_utils::make_impl`

- Defined in `file_latest_rmf_utils_include_rmf_utils_impl_ptr.hpp`

Function Documentation

```
template<class T, class ...Args>
inline impl_ptr<T> rmf_utils::make_impl (Args&&... args)
```

Template Function `rmf_utils::make_unique_impl`

- Defined in file_latest_rmf_utils_include_rmf_utils_impl_ptr.hpp

Function Documentation

```
template<class T, class ...Args>
inline unique_impl_ptr<T> rmf_utils::make_unique_impl (Args&&... args)
```

Template Function `rmf_utils::modular`

- Defined in file_latest_rmf_utils_include_rmf_utils_Modular.hpp

Function Documentation

```
template<typename V>
Modular<V> rmf_utils::modular (V value)
```

This function gives a convenient way to instantiate a `Modular<V>` object. The rules of C++ template instantiation do not allow a class constructor to infer the template type based on argument values, but function templates are able to make such an inference. This allows someone to call `modular(v)` instead of `Modular<MyIntegerValue>(v)` to get an object of type `Modular<MyIntegerValue>`.

Template Function `rmf_utils::operator!=(const unique_impl_ptr<T1, D1>&, const unique_impl_ptr<T2, D2>&)`

- Defined in file_latest_rmf_utils_include_rmf_utils_impl_ptr.hpp

Function Documentation

```
template<class T1, class D1, class C1, class T2, class D2>
inline bool rmf_utils::operator!=(const unique_impl_ptr<T1, D1> &l, const
                                unique_impl_ptr<T2, D2> &r)
```

Template Function `rmf_utils::operator!=(const unique_impl_ptr<T, D>&, std::nullptr_t)`

- Defined in file_latest_rmf_utils_include_rmf_utils_impl_ptr.hpp

Function Documentation

Warning: doxygenfunction: Unable to resolve function “rmf_utils::operator!=” with arguments (const unique_impl_ptr<T, D>&, std::nullptr_t) in doxygen xml output for project “rmf_utils” from directory: _build/doxygen/xml. Potential matches:

```
- template<class T, class D> bool operator!=(const unique_impl_ptr<T, D> &p,
↳std::nullptr_t) noexcept
- template<class T, class D> bool operator!=(std::nullptr_t, const unique_impl_ptr
↳<T, D> &p) noexcept
- template<class T1, class D1, class C1, class T2, class D2> bool operator!=(const
↳unique_impl_ptr<T1, D1> &l, const unique_impl_ptr<T2, D2> &r)
```

Template Function rmf_utils::operator!=(std::nullptr_t, const unique_impl_ptr<T, D>&)

- Defined in file_latest_rmf_utils_include_rmf_utils_impl_ptr.hpp

Function Documentation

Warning: doxygenfunction: Unable to resolve function “rmf_utils::operator!=” with arguments (std::nullptr_t, const unique_impl_ptr<T, D>&) in doxygen xml output for project “rmf_utils” from directory: _build/doxygen/xml. Potential matches:

```
- template<class T, class D> bool operator!=(const unique_impl_ptr<T, D> &p,
↳std::nullptr_t) noexcept
- template<class T, class D> bool operator!=(std::nullptr_t, const unique_impl_ptr
↳<T, D> &p) noexcept
- template<class T1, class D1, class C1, class T2, class D2> bool operator!=(const
↳unique_impl_ptr<T1, D1> &l, const unique_impl_ptr<T2, D2> &r)
```

Template Function rmf_utils::operator<(const unique_impl_ptr<T1, D1>&, const unique_impl_ptr<T2, D2>&)

- Defined in file_latest_rmf_utils_include_rmf_utils_impl_ptr.hpp

Function Documentation

```
template<class T1, class D1, class T2, class D2>
inline bool rmf_utils::operator<(const unique_impl_ptr<T1, D1> &l, const
unique_impl_ptr<T2, D2> &r)
```

Template Function `rmf_utils::operator<(const unique_impl_ptr<T, D>&, std::nullptr_t)`

- Defined in `file_latest_rmf_utils_include_rmf_utils_impl_ptr.hpp`

Function Documentation

```
template<class T, class D>
inline bool rmf_utils::operator<(const unique_impl_ptr<T, D> &l, std::nullptr_t)
```

Template Function `rmf_utils::operator<(std::nullptr_t, const unique_impl_ptr<T, D>&)`

- Defined in `file_latest_rmf_utils_include_rmf_utils_impl_ptr.hpp`

Function Documentation

```
template<class T, class D>
inline bool rmf_utils::operator<(std::nullptr_t, const unique_impl_ptr<T, D> &p)
```

Template Function `rmf_utils::operator<=(const unique_impl_ptr<T1, D1>&, const unique_impl_ptr<T2, D2>&)`**Function Documentation**

```
template<class T1, class D1, class T2, class D2>
inline bool rmf_utils::operator<=(const unique_impl_ptr<T1, D1> &l, const
                                unique_impl_ptr<T2, D2> &r)
```

Template Function `rmf_utils::operator<=(const unique_impl_ptr<T, D>&, std::nullptr_t)`**Function Documentation**

```
template<class T, class D>
inline bool rmf_utils::operator<=(const unique_impl_ptr<T, D> &p, std::nullptr_t)
```

Template Function `rmf_utils::operator<=(std::nullptr_t, const unique_impl_ptr<T, D>&)`**Function Documentation**

```
template<class T, class D>
inline bool rmf_utils::operator<=(std::nullptr_t, const unique_impl_ptr<T, D> &p)
```

Template Function `rmf_utils::operator==(const unique_impl_ptr<T1, D1>&, const unique_impl_ptr<T2, D2>&)`

- Defined in file `_latest_rmf_utils_include_rmf_utils_impl_ptr.hpp`

Function Documentation

```
template<class T1, class D1, class T2, class D2>
inline bool rmf_utils::operator==(const unique_impl_ptr<T1, D1> &l, const
                                unique_impl_ptr<T2, D2> &r)
```

Template Function `rmf_utils::operator==(const unique_impl_ptr<T, D>&, std::nullptr_t)`

- Defined in file `_latest_rmf_utils_include_rmf_utils_impl_ptr.hpp`

Function Documentation

Warning: doxygenfunction: Unable to resolve function “rmf_utils::operator==” with arguments (const unique_impl_ptr<T, D>&, std::nullptr_t) in doxygen xml output for project “rmf_utils” from directory: `_build/doxygen/xml`. Potential matches:

```
- template<class T, class D> bool operator==(const unique_impl_ptr<T, D> &p,
↳std::nullptr_t) noexcept
- template<class T, class D> bool operator==(std::nullptr_t, const unique_impl_ptr
↳<T, D> &p) noexcept
- template<class T1, class D1, class T2, class D2> bool operator==(const unique_
↳impl_ptr<T1, D1> &l, const unique_impl_ptr<T2, D2> &r)
```

Template Function `rmf_utils::operator==(std::nullptr_t, const unique_impl_ptr<T, D>&)`

- Defined in file `_latest_rmf_utils_include_rmf_utils_impl_ptr.hpp`

Function Documentation

Warning: doxygenfunction: Unable to resolve function “rmf_utils::operator==” with arguments (std::nullptr_t, const unique_impl_ptr<T, D>&) in doxygen xml output for project “rmf_utils” from directory: `_build/doxygen/xml`. Potential matches:

```
- template<class T, class D> bool operator==(const unique_impl_ptr<T, D> &p,
↳std::nullptr_t) noexcept
- template<class T, class D> bool operator==(std::nullptr_t, const unique_impl_ptr
↳<T, D> &p) noexcept
- template<class T1, class D1, class T2, class D2> bool operator==(const unique_
↳impl_ptr<T1, D1> &l, const unique_impl_ptr<T2, D2> &r)
```

Template Function `rmf_utils::operator>(const unique_impl_ptr<T1, D1>&, const unique_impl_ptr<T2, D2>&)`

Function Documentation

```
template<class T1, class D1, class T2, class D2>
inline bool rmf_utils::operator>(const unique_impl_ptr<T1, D1> &l, const
                                unique_impl_ptr<T2, D2> &r)
```

Template Function `rmf_utils::operator>(const unique_impl_ptr<T, D>&, std::nullptr_t)`

Function Documentation

```
template<class T, class D>
inline bool rmf_utils::operator>(const unique_impl_ptr<T, D> &p, std::nullptr_t)
```

Template Function `rmf_utils::operator>(std::nullptr_t, const unique_impl_ptr<T, D>&)`

Function Documentation

```
template<class T, class D>
inline bool rmf_utils::operator>(std::nullptr_t, const unique_impl_ptr<T, D> &p)
```

Template Function `rmf_utils::operator>=(const unique_impl_ptr<T1, D1>&, const unique_impl_ptr<T2, D2>&)`

Function Documentation

```
template<class T1, class D1, class T2, class D2>
inline bool rmf_utils::operator>=(const unique_impl_ptr<T1, D1> &l, const
                                unique_impl_ptr<T2, D2> &r)
```

Template Function `rmf_utils::operator>=(const unique_impl_ptr<T, D>&, std::nullptr_t)`

Function Documentation

```
template<class T, class D>
inline bool rmf_utils::operator>=(const unique_impl_ptr<T, D> &p, std::nullptr_t)
```

Template Function `rmf_utils::operator>=(std::nullptr_t, const unique_impl_ptr<T, D>&)`

Function Documentation

```
template<class T, class D>
inline bool rmf_utils::operator>=(std::nullptr_t, const unique_impl_ptr<T, D> &p)
```


Template Function `rmf_utils::pointer_to_opt`

- Defined in `file_latest_rmf_utils_include_rmf_utils_optional.hpp`

Function Documentation

```
template<typename T>
std::optional<T> rmf_utils::pointer_to_opt (const T*const ptr)
```

Template Function `rmf_utils::swap(unique_impl_ptr<T, D>&, unique_impl_ptr<T, D>&)`

- Defined in `file_latest_rmf_utils_include_rmf_utils_impl_ptr.hpp`

Function Documentation

Warning: doxygenfunction: Unable to resolve function “`rmf_utils::swap`” with arguments `(unique_impl_ptr<T, D>&, unique_impl_ptr<T, D>&)` in doxygen xml output for project “`rmf_utils`” from directory: `_build/doxygen/xml`. Potential matches:

```
- template<class T, class D, class C> void swap(impl_ptr<T, D, C> &l, impl_ptr<T, D,
↪ C> &r) noexcept
- template<class T, class D> void swap(unique_impl_ptr<T, D> &l, unique_impl_ptr<T,
↪ D> &r) noexcept
```

Template Function `rmf_utils::swap(impl_ptr<T, D, C>&, impl_ptr<T, D, C>&)`

- Defined in `file_latest_rmf_utils_include_rmf_utils_impl_ptr.hpp`

Function Documentation

Warning: doxygenfunction: Unable to resolve function “`rmf_utils::swap`” with arguments `(impl_ptr<T, D, C>&, impl_ptr<T, D, C>&)` in doxygen xml output for project “`rmf_utils`” from directory: `_build/doxygen/xml`. Potential matches:

```
- template<class T, class D, class C> void swap(impl_ptr<T, D, C> &l, impl_ptr<T, D,
↪ C> &r) noexcept
- template<class T, class D> void swap(unique_impl_ptr<T, D> &l, unique_impl_ptr<T,
↪ D> &r) noexcept
```

Function `rmf_utils::wrap_to_pi`

- Defined in `file_latest_rmf_utils_include_rmf_utils_math.hpp`

Function Documentation

inline double `rmf_utils::wrap_to_pi` (double *value*)

1.2.4 Variables

Variable `Catch::begin`

- Defined in `file_latest_rmf_utils_include_rmf_utils_catch.hpp`

Variable Documentation

not_this_one `Catch::begin` (...)

Variable `Catch::Detail::unprintableString`

- Defined in `file_latest_rmf_utils_include_rmf_utils_catch.hpp`

Variable Documentation

const std::string `Catch::Detail::unprintableString`

Variable `Catch::end`

- Defined in `file_latest_rmf_utils_include_rmf_utils_catch.hpp`

Variable Documentation

not_this_one `Catch::end` (...)

Variable `rmf_utils::nullopt`

- Defined in `file_latest_rmf_utils_include_rmf_utils_optional.hpp`

Variable Documentation

constexpr std::nullopt_t rmf_utils::nullopt = {std::nullopt}

1.2.5 Defines

Define AND_GIVEN

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

AND_GIVEN (*desc*)

Define AND_THEN

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

AND_THEN (*desc*)

Define AND_WHEN

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

AND_WHEN (*desc*)

Define ANON_TEST_CASE

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

ANON_TEST_CASE ()

Define BENCHMARK

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

BENCHMARK (*name*)

Define CAPTURE

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CAPTURE (...)

Define CATCH_CATCH_ALL

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CATCH_CATCH_ALL

Define CATCH_CATCH_ANON

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CATCH_CATCH_ANON (*type*)

Define CATCH_CONFIG_COUNTER

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CATCH_CONFIG_COUNTER

Define CATCH_CONFIG_CPP11_TO_STRING

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation**CATCH_CONFIG_CPP11_TO_STRING****Define CATCH_CONFIG_DISABLE_EXCEPTIONS**

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation**CATCH_CONFIG_DISABLE_EXCEPTIONS****Define CATCH_CONFIG_POSIX_SIGNALS**

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation**CATCH_CONFIG_POSIX_SIGNALS****Define CATCH_CONFIG_WCHAR**

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation**CATCH_CONFIG_WCHAR****Define CATCH_DEFER**

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation**CATCH_DEFER** (*id*)

Define CATCH_EMPTY

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CATCH_EMPTY ()

Define CATCH_ENFORCE

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CATCH_ENFORCE (*condition*, *msg*)

Define CATCH_ERROR

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CATCH_ERROR (*msg*)

Define CATCH_INTERNAL_CHECK_UNIQUE_TYPES

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CATCH_INTERNAL_CHECK_UNIQUE_TYPES (...)

Define CATCH_INTERNAL_CONFIG_COUNTER

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CATCH_INTERNAL_CONFIG_COUNTER

Define CATCH_INTERNAL_CONFIG_POSIX_SIGNALS

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation**CATCH_INTERNAL_CONFIG_POSIX_SIGNALS****Define CATCH_INTERNAL_ERROR**

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation**CATCH_INTERNAL_ERROR** (*msg*)**Define CATCH_INTERNAL_LINEINFO**

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation**CATCH_INTERNAL_LINEINFO****Define CATCH_INTERNAL_STRINGIFY**

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation**CATCH_INTERNAL_STRINGIFY** (...)**Define CATCH_INTERNAL_SUPPRESS_GLOBALS_WARNINGS**

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation**CATCH_INTERNAL_SUPPRESS_GLOBALS_WARNINGS**

Define CATCH_INTERNAL_SUPPRESS_PARENTHESES_WARNINGS

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CATCH_INTERNAL_SUPPRESS_PARENTHESES_WARNINGS

Define CATCH_INTERNAL_SUPPRESS_UNUSED_WARNINGS

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CATCH_INTERNAL_SUPPRESS_UNUSED_WARNINGS

Define CATCH_INTERNAL_UNSUPPRESS_GLOBALS_WARNINGS

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CATCH_INTERNAL_UNSUPPRESS_GLOBALS_WARNINGS

Define CATCH_INTERNAL_UNSUPPRESS_PARENTHESES_WARNINGS

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CATCH_INTERNAL_UNSUPPRESS_PARENTHESES_WARNINGS

Define CATCH_INTERNAL_UNSUPPRESS_UNUSED_WARNINGS

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CATCH_INTERNAL_UNSUPPRESS_UNUSED_WARNINGS

Define CATCH_PREPARE_EXCEPTION

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CATCH_PREPARE_EXCEPTION (*type*, *msg*)

Define CATCH_REC_END

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CATCH_REC_END (...)

Define CATCH_REC_GET_END

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CATCH_REC_GET_END (...)

Define CATCH_REC_GET_END1

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CATCH_REC_GET_END1 (...)

Define CATCH_REC_GET_END2

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CATCH_REC_GET_END2 ()

Define CATCH_REC_LIST

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CATCH_REC_LIST (*f*, ...)

Define CATCH_REC_LIST0

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CATCH_REC_LIST0 (*f*, *x*, *peek*, ...)

Define CATCH_REC_LIST0_UD

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CATCH_REC_LIST0_UD (*f*, *userdata*, *x*, *peek*, ...)

Define CATCH_REC_LIST1

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CATCH_REC_LIST1 (*f*, *x*, *peek*, ...)

Define CATCH_REC_LIST1_UD

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CATCH_REC_LIST1_UD (*f*, *userdata*, *x*, *peek*, ...)

Define CATCH_REC_LIST2

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CATCH_REC_LIST2 (*f, x, peek, ...*)

Define CATCH_REC_LIST2_UD

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CATCH_REC_LIST2_UD (*f, userdata, x, peek, ...*)

Define CATCH_REC_LIST_UD

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CATCH_REC_LIST_UD (*f, userdata, ...*)

Define CATCH_REC_NEXT

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CATCH_REC_NEXT (*test, next*)

Define CATCH_REC_NEXT0

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CATCH_REC_NEXT0 (*test, next, ...*)

Define CATCH_REC_NEXT1

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CATCH_REC_NEXT1 (*test, next*)

Define CATCH_REC_OUT

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CATCH_REC_OUT

Define CATCH_RECURSE

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CATCH_RECURSE (...)

Define CATCH_RECURSION_LEVEL0

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CATCH_RECURSION_LEVEL0 (...)

Define CATCH_RECURSION_LEVEL1

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CATCH_RECURSION_LEVEL1 (...)

Define CATCH_RECURSION_LEVEL2

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CATCH_RECURSION_LEVEL2 (...)

Define CATCH_RECURSION_LEVEL3

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CATCH_RECURSION_LEVEL3 (...)

Define CATCH_RECURSION_LEVEL4

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CATCH_RECURSION_LEVEL4 (...)

Define CATCH_RECURSION_LEVEL5

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CATCH_RECURSION_LEVEL5 (...)

Define CATCH_REGISTER_TAG_ALIAS

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CATCH_REGISTER_TAG_ALIAS (*alias*, *spec*)

Define CATCH_RUNTIME_ERROR

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CATCH_RUNTIME_ERROR (*msg*)

Define CATCH_TRANSLATE_EXCEPTION

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CATCH_TRANSLATE_EXCEPTION (*signature*)

Define CATCH_TRY

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CATCH_TRY

Define CATCH_VERSION_MAJOR

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CATCH_VERSION_MAJOR

Define CATCH_VERSION_MINOR

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CATCH_VERSION_MINOR

Define CATCH_VERSION_PATCH

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CATCH_VERSION_PATCH

Define CHECK

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CHECK (...)

Define CHECK_FALSE

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CHECK_FALSE (...)

Define CHECK_NOFAIL

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CHECK_NOFAIL (...)

Define CHECK_NO_THROW

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CHECK_NO_THROW (...)

Define CHECK_THAT

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CHECK_THAT (*arg*, *matcher*)

Define CHECK_THROWS

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CHECK_THROWS (...)

Define CHECK_THROWS_AS

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CHECK_THROWS_AS (*expr*, *exceptionType*)

Define CHECK_THROWS_MATCHES

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CHECK_THROWS_MATCHES (*expr*, *exceptionType*, *matcher*)

Define CHECK_THROWS_WITH

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CHECK_THROWS_WITH (*expr*, *matcher*)

Define CHECKED_ELSE

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CHECKED_ELSE (...)

Define CHECKED_IF

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

CHECKED_IF (...)

Define DYNAMIC_SECTION

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

DYNAMIC_SECTION (...)

Define FAIL

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

FAIL (...)

Define FAIL_CHECK

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

FAIL_CHECK (...)

Define GENERATE

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

GENERATE (...)

Define GIVEN

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

GIVEN (*desc*)

Define INFO

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

INFO (*msg*)

Define INTERNAL_CATCH_CAPTURE

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

INTERNAL_CATCH_CAPTURE (*varName*, *macroName*, ...)

Define INTERNAL_CATCH_CATCH

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

INTERNAL_CATCH_CATCH (*capturer*)

Define INTERNAL_CATCH_DEF

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

INTERNAL_CATCH_DEF (...)

Define INTERNAL_CATCH_DYNAMIC_SECTION

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

INTERNAL_CATCH_DYNAMIC_SECTION (...)

Define INTERNAL_CATCH_ELSE

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

INTERNAL_CATCH_ELSE (*macroName*, *resultDisposition*, ...)

Define INTERNAL_CATCH_EXPAND1

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

INTERNAL_CATCH_EXPAND1 (*param*)

Define INTERNAL_CATCH_EXPAND2

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

INTERNAL_CATCH_EXPAND2 (...)

Define INTERNAL_CATCH_IF

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

INTERNAL_CATCH_IF (*macroName*, *resultDisposition*, ...)

Define INTERNAL_CATCH_INFO

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

INTERNAL_CATCH_INFO (*macroName*, *log*)

Define INTERNAL_CATCH_METHOD_AS_TEST_CASE

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

INTERNAL_CATCH_METHOD_AS_TEST_CASE (*QualifiedMethod*, ...)

Define INTERNAL_CATCH_MSG

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

INTERNAL_CATCH_MSG (*macroName*, *messageType*, *resultDisposition*, ...)

Define INTERNAL_CATCH_NO_THROW

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

INTERNAL_CATCH_NO_THROW (*macroName*, *resultDisposition*, ...)

Define INTERNAL_CATCH_NOINTERNAL_CATCH_DEF

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation**INTERNAL_CATCH_NOINTERNAL_CATCH_DEF****Define INTERNAL_CATCH_REACT**

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation**INTERNAL_CATCH_REACT** (*handler*)**Define INTERNAL_CATCH_REGISTER_TESTCASE**

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation**INTERNAL_CATCH_REGISTER_TESTCASE** (*Function, ...*)**Define INTERNAL_CATCH_REMOVE_PARENS**

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation**INTERNAL_CATCH_REMOVE_PARENS** (...)**Define INTERNAL_CATCH_SECTION**

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation**INTERNAL_CATCH_SECTION** (...)

Define INTERNAL_CATCH_TEMPLATE_REGISTRY_INITIATE

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

INTERNAL_CATCH_TEMPLATE_REGISTRY_INITIATE (*TestName*, *Name*, ...)

Define INTERNAL_CATCH_TEMPLATE_TEST_CASE

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

INTERNAL_CATCH_TEMPLATE_TEST_CASE (*Name*, *Tags*, ...)

Define INTERNAL_CATCH_TEMPLATE_TEST_CASE_2

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

INTERNAL_CATCH_TEMPLATE_TEST_CASE_2 (*TestName*, *TestFunc*, *Name*, *Tags*, ...)

Define INTERNAL_CATCH_TEMPLATE_TEST_CASE_METHOD

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

INTERNAL_CATCH_TEMPLATE_TEST_CASE_METHOD (*ClassName*, *Name*, *Tags*, ...)

Define INTERNAL_CATCH_TEMPLATE_TEST_CASE_METHOD_2

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

INTERNAL_CATCH_TEMPLATE_TEST_CASE_METHOD_2 (*TestNameClass*, *TestName*, *ClassName*, *Name*,
Tags, ...)

Define INTERNAL_CATCH_TEMPLATE_UNIQUE_NAME

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

INTERNAL_CATCH_TEMPLATE_UNIQUE_NAME (*Name*, ...)

Define INTERNAL_CATCH_TEMPLATE_UNIQUE_NAME2

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

INTERNAL_CATCH_TEMPLATE_UNIQUE_NAME2 (*Name*, ...)

Define INTERNAL_CATCH_TEMPLATE_UNIQUE_NAME3

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

INTERNAL_CATCH_TEMPLATE_UNIQUE_NAME3 (*Name*, ...)

Define INTERNAL_CATCH_TEST

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

INTERNAL_CATCH_TEST (*macroName*, *resultDisposition*, ...)

Define INTERNAL_CATCH_TEST_CASE_METHOD

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

INTERNAL_CATCH_TEST_CASE_METHOD (*ClassName*, ...)

Define INTERNAL_CATCH_TEST_CASE_METHOD2

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

INTERNAL_CATCH_TEST_CASE_METHOD2 (*TestName*, *ClassName*, ...)

Define INTERNAL_CATCH_TESTCASE

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

INTERNAL_CATCH_TESTCASE (...)

Define INTERNAL_CATCH_TESTCASE2

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

INTERNAL_CATCH_TESTCASE2 (*TestName*, ...)

Define INTERNAL_CATCH_THROWS

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

INTERNAL_CATCH_THROWS (*macroName*, *resultDisposition*, ...)

Define INTERNAL_CATCH_THROWS_AS

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

INTERNAL_CATCH_THROWS_AS (*macroName*, *exceptionType*, *resultDisposition*, *expr*)

Define INTERNAL_CATCH_THROWS_MATCHES

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

INTERNAL_CATCH_THROWS_MATCHES (*macroName, exceptionType, resultDisposition, matcher, ...*)

Define INTERNAL_CATCH_THROWS_STR_MATCHES

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

INTERNAL_CATCH_THROWS_STR_MATCHES (*macroName, resultDisposition, matcher, ...*)

Define INTERNAL_CATCH_TRANSLATE_EXCEPTION

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

INTERNAL_CATCH_TRANSLATE_EXCEPTION (*signature*)

Define INTERNAL_CATCH_TRANSLATE_EXCEPTION2

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

INTERNAL_CATCH_TRANSLATE_EXCEPTION2 (*translatorName, signature*)

Define INTERNAL_CATCH_TRY

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

INTERNAL_CATCH_TRY

Define INTERNAL_CATCH_UNIQUE_NAME

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

INTERNAL_CATCH_UNIQUE_NAME (*name*)

Define INTERNAL_CATCH_UNIQUE_NAME_LINE

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

INTERNAL_CATCH_UNIQUE_NAME_LINE (*name*, *line*)

Define INTERNAL_CATCH_UNIQUE_NAME_LINE2

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

INTERNAL_CATCH_UNIQUE_NAME_LINE2 (*name*, *line*)

Define INTERNAL_CHECK_THAT

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

INTERNAL_CHECK_THAT (*macroName*, *matcher*, *resultDisposition*, *arg*)

Define METHOD_AS_TEST_CASE

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

METHOD_AS_TEST_CASE (*method*, ...)

Define REGISTER_TEST_CASE

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

REGISTER_TEST_CASE (*Function*, ...)

Define REQUIRE

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

REQUIRE (...)

Define REQUIRE_FALSE

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

REQUIRE_FALSE (...)

Define REQUIRE_NOTHROW

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

REQUIRE_NOTHROW (...)

Define REQUIRE_THAT

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

REQUIRE_THAT (*arg*, *matcher*)

Define REQUIRE_THROWS

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

REQUIRE_THROWS (...)

Define REQUIRE_THROWS_AS

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

REQUIRE_THROWS_AS (*expr*, *exceptionType*)

Define REQUIRE_THROWS_MATCHES

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

REQUIRE_THROWS_MATCHES (*expr*, *exceptionType*, *matcher*)

Define REQUIRE_THROWS_WITH

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

REQUIRE_THROWS_WITH (*expr*, *matcher*)

Define RMF_UTILS__DEFAULT_COPY_MOVE

- Defined in file_latest_rmf_utils_include_rmf_utils_macros.hpp

Define Documentation

RMF_UTILS__DEFAULT_COPY_MOVE (*Class*)

Define SCENARIO

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

SCENARIO (...)

Define SCENARIO_METHOD

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

SCENARIO_METHOD (*className*, ...)

Define SECTION

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

SECTION (...)

Define STATIC_REQUIRE

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

STATIC_REQUIRE (...)

Define STATIC_REQUIRE_FALSE

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

STATIC_REQUIRE_FALSE (...)

Define SUCCEED

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

SUCCEED (...)

Define TEMPLATE_TEST_CASE

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

TEMPLATE_TEST_CASE (...)

Define TEMPLATE_TEST_CASE_METHOD

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

TEMPLATE_TEST_CASE_METHOD (*className*, ...)

Define TEST_CASE

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

TEST_CASE (...)

Define TEST_CASE_METHOD

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

TEST_CASE_METHOD (*className*, ...)

Define THEN

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

THEN (*desc*)

Define WARN

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

WARN (*msg*)

Define WHEN

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Define Documentation

WHEN (*desc*)

1.2.6 Typedefs

Typedef Catch::exceptionTranslateFunction

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Typedef Documentation

using Catch::exceptionTranslateFunction = std::string (*)()

Typedef Catch::ExceptionTranslators

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Typedef Documentation

using Catch::ExceptionTranslators = std::vector<std::unique_ptr<IExceptionTranslator const>>

Typedef Catch::Generators::GeneratorBasePtr

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Typedef Documentation

using Catch::Generators::GeneratorBasePtr = std::unique_ptr<GeneratorBase>

Typedef Catch::IReporterFactoryPtr

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Typedef Documentation

using Catch::IReporterFactoryPtr = std::shared_ptr<IReporterFactory>

Typedef Catch::ITestCasePtr

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Typedef Documentation

using Catch::ITestCasePtr = std::shared_ptr<ITestInvoker>

Typedef Catch::StringMatcher

- Defined in file_latest_rmf_utils_include_rmf_utils_catch.hpp

Typedef Documentation

using Catch::StringMatcher = Matchers::Impl::MatcherBase<std::string>

Typedef rmf_utils::details::default_copier_t

- Defined in file_latest_rmf_utils_include_rmf_utils_impl_ptr.hpp

Typedef Documentation

```
using rmf_utils::details::default_copier_t = T (*)(const T*)
```

Typedef rmf_utils::details::default_deleter_t

- Defined in file_latest_rmf_utils_include_rmf_utils_impl_ptr.hpp

Typedef Documentation

```
using rmf_utils::details::default_deleter_t = void (*)(T*)
```

Typedef rmf_utils::optional

- Defined in file_latest_rmf_utils_include_rmf_utils_optional.hpp

Typedef Documentation

```
using rmf_utils::optional = std::optional<T>
```


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