SRRender

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Super-resolution microscopy parallel rendering tool for Matlab and C++.

LICENSE

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- Author: Mark J. Olah
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2 Namespace Index

2.1 Namespace List

Here is a list of all namespaces with brief descriptions:

3 Class Index

3.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

4 File Index

4.1 File List

Here is a list of all files with brief descriptions:

5 Namespace Documentation

5.1 srrender Namespace Reference

Classes

- class SRRender2D

Typedefs

- using SRRenderError = backtrace_exception::BacktraceException

5.1.1 Typedef Documentation

5.1.1.1 using srrender::SRRenderError = typedef backtrace_exception::BacktraceException

Definition at line 17 of file SRRender.h.

6 Class Documentation

6.1 srrender::SRRender2D< FloatT, IdxT > Class Template Reference

`#include </home/travis/build/markjolah/SRRender/include/SRRender/SRRender.h>`

Public Types

- using IVecT = arma::Col< IdxT >
- using VecT = arma::Col< FloatT >
- using ImageT = arma::Mat< FloatT >
- using MovieT = arma::Cube< FloatT >
- using EmitterVecT = arma::Mat< FloatT >

Static Public Member Functions

- static void renderHist (const EmitterVecT &points, const VecT &roi, ImageT &im)
- static void renderGauss (const EmitterVecT &points, const VecT &roi, ImageT &im, FloatT sigma↩ Accuracy=DefaultSigmaAccuracy)
- static void renderHistMovie (const EmitterVecT &points, const VecT &roi, MovieT &im)
- static void renderGaussMovie (const EmitterVecT &points, const VecT &roi, MovieT &im, FloatT sigma↩ Accuracy=DefaultSigmaAccuracy)

Static Public Attributes

- static const FloatT DefaultSigmaAccuracy

6.1.1 Detailed Description

template<class FloatT = float, class IdxT = uint32_t>
class srrender::SRRender2D< FloatT, IdxT >

Points format. Row-oriented each row is a point, each column is a property 2D renderHist Columns: [I X Y] 2D render↩ Gauss Columns:[I X Y sigmaX sigmaY] 2D renderHistMovie Columns: [I X Y Frame] - Frame is 0-indexed 2D render↩ GaussMovie Columns:[I X Y sigmaX sigmaY Frame] - Frame is 0-indexed

The 'size' parameter gives the size of the entire field of view to be rendered in units corresponding to the points format vectors.

Definition at line 32 of file SRRender.h.

6.1.2 Member Typedef Documentation

6.1.2.1 template<class FloatT = float, class IdxT = uint32_t> using srrender::SRRender2D< FloatT, IdxT >::EmitterVecT = arma::Mat<FloatT>

Definition at line 38 of file SRRender.h.

6.1.2.2 template<class FloatT = float, class IdxT = uint32_t> using srrender::SRRender2D< FloatT, IdxT >::ImageT = arma::Mat<FloatT>

Definition at line 36 of file SRRender.h.

6.1.2.3 template<class FloatT = float, class IdxT = uint32_t> using srrender::SRRender2D< FloatT, IdxT >::IVecT = arma::Col<IdxT>

Definition at line 34 of file SRRender.h.

6.1.2.4 template<class FloatT = float, class IdxT = uint32_t> using srrender::SRRender2D< FloatT, IdxT >::MovieT = arma::Cube<FloatT>

Definition at line 37 of file SRRender.h.

6.1.2.5 template<class FloatT = float, class IdxT = uint32_t> using srrender::SRRender2D< FloatT, IdxT >::VecT = arma::Col<FloatT>

Definition at line 35 of file SRRender.h.

6.1.3 Member Function Documentation

6.1.3.1 template<class FloatT = float, class IdxT = uint32_t> static void srrender::SRRender2D< FloatT, IdxT >::renderGauss (const EmitterVecT & *points,* const VecT & *roi,* ImageT & *im,* FloatT *sigmaAccuracy* = DefaultSigmaAccuracy) [static]

6.1.3.2 template<class FloatT = float, class IdxT = uint32_t> static void srrender::SRRender2D< FloatT, IdxT >::renderGaussMovie (const EmitterVecT & *points,* const VecT & *roi,* MovieT & *im,* FloatT *sigmaAccuracy* = DefaultSigmaAccuracy) [static]

6.1.3.3 template<class FloatT = float, class IdxT = uint32_t> static void srrender::SRRender2D< FloatT, IdxT >::renderHist (const EmitterVecT & *points,* const VecT & *roi,* ImageT & *im*) [static]

6.1.3.4 template<class FloatT = float, class IdxT = uint32_t> static void srrender::SRRender2D< FloatT, IdxT >::renderHistMovie (const EmitterVecT & *points,* const VecT & *roi,* MovieT & *im*) [static]

6.1.4 Member Data Documentation

6.1.4.1 template<class FloatT = float, class IdxT = uint32_t> const FloatT srrender::SRRender2D< FloatT, IdxT >::DefaultSigmaAccuracy [static]

Definition at line 39 of file SRRender.h.

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

- SRRender.h

7 File Documentation

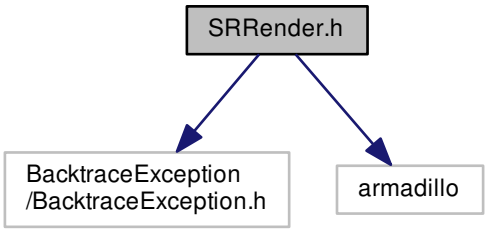
7.1 README.md File Reference

7.2 SRRender.h File Reference

The class declaration and inline and templated functions for SRRender.

```
#include <BacktraceException/BacktraceException.h>
#include <armadillo>
```

Include dependency graph for SRRender.h:



Classes

- class srrender::SRRender2D< FloatT, IdxT >

Namespaces

- srrender

Typedefs

- using srrender::SRRenderError = backtrace_exception::BacktraceException

7.2.1 Detailed Description

The class declaration and inline and templated functions for SRRender.

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Date

2014-2019 Rendering of SR emitter localizations

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