

Digital Signal Processing using CUDA

1.0

Generated by Doxygen 1.8.6

Fri Jan 17 2014 17:29:47

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Chapter 1

Class Index

1.1 Class List

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

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Chapter 2

Class Documentation

2.1 Node Class Reference

Public Member Functions

- **Node** (int deviceIdIdentifier, [InputBuffer](#) *input)
- int **stop** ()

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

- /home/fabian/DSP/src/Node.h

2.2 Output Struct Reference

Public Attributes

- Precision **p1**
- Precision **p2**
- Precision **p3**

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

- /home/fabian/DSP/src/Types.h

2.3 OutputStream Class Reference

```
#include <OutputStream.h>
```

Public Member Functions

- [OutputStream](#) (std::string file)
Basic constructor.
- [Ringbuffer](#) & [getBuffer](#) ()
Returns a reference of the buffer.
- void [finish](#) ()
Signals, that no new data will be written into the buffer.

2.3.1 Detailed Description

Class that provides all functions to write the results of the computation into a file.

2.3.2 Constructor & Destructor Documentation

2.3.2.1 OutputStream::OutputStream (std::string *file*)

Basic constructor.

Constructor opens a filestream, initialise the output buffer and start the thread, which takes elements from the buffers and writes them into the file.

Parameters

<i>Filename</i>	of the output file.
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2.3.3 Member Function Documentation

2.3.3.1 void OutputStream::finish ()

Signals, that no new data will be written into the buffer.

This function will make the Writeback Thread stop, after all remaining elements in the buffer are written into the output file

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

- /home/fabian/DSP/src/OutputStream.h

2.4 Ringbuffer< Type, size > Class Template Reference

Public Member Functions

- Type * **reserveHead** ()
- int **freeHead** (Type *data)
- Type * **reserveTail** ()
- int **freeTail** (Type *gpu_data)
- bool **isEmpty** ()

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

- /home/fabian/DSP/src/Ringbuffer.h

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