

General Quadratic Placer

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Contents

| | | |
|----------|--|----------|
| 1 | Class Index | 1 |
| 1.1 | Class List | 1 |
| 2 | Class Documentation | 3 |
| 2.1 | coo_matrix Class Reference | 3 |
| 2.2 | mothercore Class Reference | 3 |
| 2.2.1 | Detailed Description | 4 |
| 2.2.2 | Constructor & Destructor Documentation | 4 |
| 2.2.2.1 | mothercore() | 4 |
| 2.2.3 | Member Function Documentation | 4 |
| 2.2.3.1 | get_gateconnections(int gateNum) | 4 |
| 2.2.3.2 | get_gateCoords(int gateNum) | 4 |
| 2.2.3.3 | get_gateKeys() | 5 |
| 2.2.3.4 | get_numG() | 5 |
| 2.2.3.5 | get_numP() | 5 |
| | Index | 7 |

Chapter 1

Class Index

1.1 Class List

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

| | | |
|----------------------------|-------|-------------------|
| coo_matrix | | 3 |
| mothercore | | 3 |

Chapter 2

Class Documentation

2.1 coo_matrix Class Reference

Public Member Functions

- void **read_coo_matrix** (const char *fname)
- void **matvec** (const valarray< double > &x, valarray< double > &y)
- void **solve** (const valarray< double > &b, valarray< double > &x)

Public Attributes

- int **n**
- int **nnz**
- valarray< int > **row**
- valarray< int > **col**
- valarray< double > **dat**

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

- solver.h
- solver.cpp

2.2 mothercore Class Reference

Public Member Functions

- [mothercore](#) ()
- int [get_numG](#) ()
- vi [get_gateKeys](#) ()
- vd [get_gateCoords](#) (int gateNum)
- vi [get_gateconnections](#) (int gateNum)
- void **add_gate** (int gateNum, vi listofconnections)
- int [get_numP](#) ()
- vi **get_padKeys** ()
- vd **get_padCoords** (int padNum)
- void **add_pad** (int padNum, vd netandlocation)
- int **get_numN** ()
- vi **get_netKeys** ()

- int **get_numNetConns** (int netNum)
- vi **get_netGateConns** (int netNum)
- vi **get_netPadConns** (int netNum)
- void **add_net** (int netNum, int connection, int gateorpad)
- bool **add_location** (vd x, vd y, vi gatekeys, int bound[4])
- vvd **get_locations** (vi gatekeys)
- void **print_all_locations** ()
- void **print_all_pads** ()

2.2.1 Detailed Description

Class which defines an ASIC and its components.

2.2.2 Constructor & Destructor Documentation

2.2.2.1 mothercore::mothercore () [inline]

Constructor of the class 'mothercore'

2.2.3 Member Function Documentation

2.2.3.1 vi mothercore::get_gateconnections (int *gateNum*) [inline]

Helper function to return connections of a gate.

Parameters

| | |
|----------------|---|
| <i>gateNum</i> | The gate-number for which coordinates are needed. |
|----------------|---|

Returns

A vector of the net-numbers connected to gate number 'gateNum'.

2.2.3.2 vd mothercore::get_gateCoords (int *gateNum*) [inline]

Helper function to return gate coordinates.

Parameters

| | |
|----------------|---|
| <i>gateNum</i> | The gate-number for which coordinates are needed. |
|----------------|---|

See also

get_padCoords()

Returns

The x, y coordinates of the gate number 'gateNum'.

2.2.3.3 `vi mothercore::get_gateKeys () [inline]`

Helper function to return gate keys.

See also

`get_padKeys()`
`get_netKeys()`

Returns

A vector with the gate-number of gates in the ASIC.

2.2.3.4 `int mothercore::get_numG () [inline]`

Helper function to return the number of gates.

See also

[get_numP\(\)](#)
`get_numN()`

Returns

The number of gates in the ASIC.

2.2.3.5 `int mothercore::get_numP () [inline]`

Helper function to return the number of pads.

See also

[get_numG\(\)](#)
`get_numN()`

Returns

The number of pads in the ASIC.

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

- `qplacer.cpp`

Index

coo_matrix, [3](#)

get_gateCoords
 mothercore, [4](#)

get_gateKeys
 mothercore, [4](#)

get_gateconnections
 mothercore, [4](#)

get_numG
 mothercore, [5](#)

get_numP
 mothercore, [5](#)

mothercore, [3](#)
 get_gateCoords, [4](#)
 get_gateKeys, [4](#)
 get_gateconnections, [4](#)
 get_numG, [5](#)
 get_numP, [5](#)
 mothercore, [4](#)