gslice

[intro]

This class gslice represents a [valarray](https://cplusplus.com/valarray) *generalized slice* selector (a multidimensional slice).

[code]

#include <iostream>

#include <string>

#include <cstddef>

#include <valarray>

using namespace std;

template <class T>

void PrintValarray(valarray<T> va, string name)

{

cout<<name<<":"<<endl;

for(int i=0;i<va.size();i++)

{

cout<<va[i]<<" ";

}

cout<<endl;

}

void PrintGslice(gslice slc,string name)

{

cout<<name<<":"<<endl;

cout<<(int)slc.start();

cout<<endl;

PrintValarray<size\_t>(slc.stride(),"slc.stride()");

cout<<endl;

PrintValarray<size\_t>(slc.size(),"slc.size()");

cout<<endl;

}

int main ()

{

std::valarray<int> foo (14);

for (int i=0; i<14; ++i)

{

foo[i]=i\*i;

}

std::size\_t start=1;

std::size\_t lengths[]= {2,3};

std::size\_t strides[]= {7,2};

std::gslice mygslice (start,

std::valarray<std::size\_t>(lengths,2),

std::valarray<std::size\_t>(strides,2));

std::valarray<int> bar = foo[mygslice];

PrintValarray<int>(bar,"bar");

cout<<"----"<<endl;

PrintGslice(mygslice,"mygslice");

cout<<"----"<<endl;

return 0;

}

[result]

bar:

1 9 25 64 100 144

----

mygslice:

1

slc.stride():

7 2

slc.size():

2 3

[ref]

<https://cplusplus.com/reference/valarray/gslice/>