

[Help](#)

```
#if defined(PremiaCurrentVersion) && PremiaCurrentVersion < (2007+2) //The "#els
#else

#include <vector>
#include <cmath>

#ifndef generator_h_
#define generator_h_

//random variable class
class rv
{
    //function simulates a random variable
public:
    virtual double get_rv(void) = 0;

    virtual ~rv() {};
};

//bernoulli random variable class
class rv_bernoulli: public rv
{

    //the parameters: probability(x=nvalue1)=nproba;    probability(x=nvalue2)=1-np
private:
    double nproba;
    double nvalue1;
    double nvalue2;
    int generator;

public:

    //class constructor
    rv_bernoulli(double _nproba = 0.5, double _nvalue1 = 1, double _nvalue2 = 1, i
    {
        nproba = ((_nproba > 0.) & (_nproba < 1.)) ? _nproba : 0.5;
        generator = _generator;
        nvalue1 = _nvalue1;
```

```
    nvalue2 = _nvalue2;
};

//function simulates a bernoulli random variable
virtual double get_rv(void)
{
    double x;
    x = pnl_rand_uni(generator);
    return (x < nproba) ? nvalue1 : nvalue2;
};

virtual ~rv_bernoulli() {};
};

class rv_vector
{
    //parameters:
    //ndim_vector - a dimension of our vector
protected:
    int ndim_vector;

public:

    //class constructor
    rv_vector(int _ndim)
    {
        ndim_vector = (_ndim > 0) ? _ndim : 1;
    };

    virtual std::vector<double> get_rv(void) = 0;
    virtual ~rv_vector() {};
};

#endif

#endif //PremiaCurrentVersion
```