

[Help](#)

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

#include <
href../../../../common/math/highdim_solver/highdim_vector_h_src.pdfvector>
#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

```