```
// Define the parameters:
Parameter i1                ("Intensity",   1.0,   0.0,   1.0);
Parameter i2                ("Intensity",   1.0,   0.0,   1.0);
Parameter s                 ("Width",       0.5,   0.0,   5.0);
Parameter d                 ("Separation",  1.0,   0.0,   5.0);

// Derived Parameters:
GENPARAMETER x0_0 = -d-s;
GENPARAMETER x1_0 = -d+s;
GENPARAMETER x0_1 =  d-s;
GENPARAMETER x1_1 =  d+s;

// Manufacture the impulse function out of two rectangular functions:
Rectangular rect0,rect1;
rect0.height().connectFrom(&i1);
rect1.height().connectFrom(&i2);
rect0.x0().connectFrom(&x0_0);
rect0.x1().connectFrom(&x1_0);
rect1.x0().connectFrom(&x0_1);
rect1.x1().connectFrom(&x1_1);
GENFUNCTION impulse = rect0+rect1;

// Manufacture the response function:
Variable x;
Sin    sine;
Cos    cosine;
Square square;
GENFUNCTION alpha = s*x*0.5;
GENFUNCTION beta  = d*x;
GENFUNCTION amplitude0 = i1*sine(alpha)/alpha;
GENFUNCTION amplitude1 = i2*sine(alpha)/alpha;
GENFUNCTION response=
  square(amplitude0) +
  square(amplitude1) +
  2*amplitude0*amplitude1*cosine(beta);
```