

[Help](#)

```
#include "Hawkes_Intensity.h"
#include "chk.h"
#include "error_msg.h"
#include "model.h"

static int MOD(Init)(Model *model)
{
    TYPEMOD *pt = (TYPEMOD *) (model->TypeModel);

    if (model->init == 0)
    {
        model->init = 1;
        model->nvar = 0;

        pt->lambda0.Vname = "lambda_0";
        pt->lambda0.Vtype = DOUBLE;
        pt->lambda0.Val.V_DOUBLE = 1.;
        pt->lambda0.Viter = ALLOW;
        model->nvar++;

        pt->kappa.Vname = "Long-Run Variance";
        pt->kappa.Vtype = DOUBLE;
        pt->kappa.Val.V_DOUBLE = 2.;
        pt->kappa.Viter = ALLOW;
        model->nvar++;

        pt->c.Vname = "Mean reversion";
        pt->c.Vtype = DOUBLE;
        pt->c.Val.V_DOUBLE = 1.;
        pt->c.Viter = ALLOW;
        model->nvar++;

        pt->delta.Vname = "Loss impact";
        pt->delta.Vtype = DOUBLE;
        pt->delta.Val.V_DOUBLE = 1.;
        pt->delta.Viter = ALLOW;
        model->nvar++;
    }
}
```

```
    pt->r.Vname = "Interest Rate";
    pt->r.Vtype = DOUBLE;
    pt->r.Val.V_DOUBLE = 0.05;
    pt->r.Viter = ALLOW;
    model->nvar++;

    pt->Ncomp.Vname = "Number of Companies";
    pt->Ncomp.Vtype = PINT;
    pt->Ncomp.Val.V_PINT = 125;
    pt->Ncomp.Viter = ALLOW;
    model->nvar++;

}

return OK;
}

TYPEMOD Hawkes_Intensity;
MAKEMOD(Hawkes_Intensity);
```