

[Help](#)

```
#include "mer2d.h"
#include "chk.h"
#include "model.h"

extern char *path_sep;

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

    if (model->init == 0)
    {
        model->init = 1;
        model->nvar = 0;
        pt->T.Vname = "Current Date";
        pt->T.Vtype = DATE;
        pt->T.Val.V_DATE = 0.;
        pt->T.Viter = ALLOW;
        model->nvar++;

        pt->S01.Vname = "Spot 1";
        pt->S01.Vtype = PDOUBLE;
        pt->S01.Val.V_PDOUBLE = 90.;
        pt->S01.Viter = ALLOW;
        model->nvar++;

        pt->S02.Vname = "Spot 2";
        pt->S02.Vtype = PDOUBLE;
        pt->S02.Val.V_PDOUBLE = 90.;
        pt->S02.Viter = ALLOW;

        model->nvar++;

        pt->Sigma1.Vname = "Volatility 1";
        pt->Sigma1.Vtype = PDOUBLE;
        pt->Sigma1.Val.V_PDOUBLE = 0.12;
        pt->Sigma1.Viter = ALLOW;
        model->nvar++;
    }
}
```

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pt->Sigma2.Vname = "Volatility 2";
pt->Sigma2.Vtype = PDOUBLE;
pt->Sigma2.Val.V_PDOUBLE = 0.15;
pt->Sigma2.Viter = ALLOW;
model->nvar++;

pt->R.Vname = "Annual Interest Rate";
pt->R.Vtype = DOUBLE;
pt->R.Val.V_DOUBLE = 5.;
pt->R.Viter = ALLOW;
model->nvar++;

pt->Lambda.Vname = "Lambda";
pt->Lambda.Vtype = DOUBLE;
pt->Lambda.Val.V_DOUBLE = 0.6;
pt->Lambda.Viter = ALLOW;
model->nvar++;

pt->Mean1.Vname = "Mean of Jumps 1";
pt->Mean1.Vtype = DOUBLE;
pt->Mean1.Val.V_DOUBLE = -0.1;
pt->Mean1.Viter = ALLOW;
model->nvar++;

pt->Variance1.Vname = "Variance of Jumps 1";
pt->Variance1.Vtype = DOUBLE;
pt->Variance1.Val.V_DOUBLE = 0.13;
pt->Variance1.Viter = ALLOW;
model->nvar++;

pt->Mean2.Vname = "Mean of Jumps 2";
pt->Mean2.Vtype = DOUBLE;
pt->Mean2.Val.V_DOUBLE = 0.1;
pt->Mean2.Viter = ALLOW;
model->nvar++;

pt->Variance2.Vname = "Variance of Jumps 2";
pt->Variance2.Vtype = DOUBLE;
pt->Variance2.Val.V_DOUBLE = 0.17;
pt->Variance2.Viter = ALLOW;
```

```
        model->nvar++;

        pt->rho1.Vname = "Brownian Correlation";
        pt->rho1.Vtype = RGDOUBLEM11;
        pt->rho1.Val.V_RGDOUBLEM11 = 0.3;
        pt->rho1.Viter = ALLOW;
        model->nvar++;

        pt->rho2.Vname = "Poisson Correlation ";
        pt->rho2.Vtype = RGDOUBLEM11;
        pt->rho2.Val.V_RGDOUBLEM11 = -0.2;
        pt->rho2.Viter = ALLOW;
        model->nvar++;

        model->HelpFilenameHint = "MER2D";

    }

    return OK;
}

TYPEMOD Merton2dim;

MAKEMOD(Merton2dim);
```