```
> ##########################################################################
> # Libraries
> ##########################################################################
> library(quantreg)
> library(MASS)
> ##############################################
> # A simple example:
> #
> n <- 10                                       # number of cross sectional units
> m <- 25                                       # number of time series units
> rdu = 0.5                                     # correlation parameter
> tau = 0.5                                     # quantile of interest
> s <- rep(1:n,each=m)                          # strata
> Z <- model.matrix(s~as.factor(s)-1)[,-1]      # incidence matrix
> set.seed(25)
> mu <- rep(rchisq(n,3), each=m)
> epsilon <- rchisq(length(s),3)
> XZ <- cbind(mu + epsilon,Z)
> iv <- rep(rnorm(n), each=m) + rnorm(length(s))
> ief <- rep(rnorm(n), each=m)
> v <- rep(rnorm(n), each=m) + rnorm(length(s))
> u <- v*rdu + rnorm(length(s))*sqrt(1-rdu^2)
> d <- iv + v
> y <- ief + u
> rq.fit.ivpanel(d,XZ[,1],iv,y,s,tau=tau) -> bhat
> round(bhat,3)
 [1]  0.000 -0.007 -2.973 -2.207 -1.535 -0.786  0.599 -0.809 -0.404 -1.899 -2.460  1.522
> rq.se.ivpanel(bhat,d,XZ[,1],iv,y,s,tau=tau) -> bsehat
> round(bsehat,3) -> bsehat
> colnames(bsehat) <- c("endog", "exog", rep("ie",n-1), "int")
> rownames(bsehat) <- c("beta", "se")
> bsehat
     endog   exog     ie     ie     ie     ie    ie     ie     ie     ie     ie   int
beta 0.000 -0.007 -2.973 -2.207 -1.535 -0.786 0.599 -0.809 -0.404 -1.899 -2.460 1.522
se   0.068  0.026  0.259  0.417  0.298  0.334 0.406  0.416  0.344  0.393  0.313 0.313
>
```