

IO  
Class\_IO

-ctrl\_file: character(:)  
-ctrl\_unit: integer  
-physics\_config\_file: character(:)  
-physics\_config\_unit: integer  
-io\_config\_file: character(:)  
-io\_config\_uinit: integer  
-read\_file: character(:)  
-read\_unit: integer  
-read\_fmt: character(:)  
-output\_file: character(:)  
-output\_uinit: integer  
-output\_fmt: character(:)  
-output\_freq: integer  
-statistic\_file: character(:)  
-statistic\_unit: integer  
-statistic\_fmt: character(:)  
-statistic\_freq: integer  
-colloid\_file: character(:)  
-colloid\_unit: integer  
-colloid\_fmt: character(:)  
-colloid\_freq: integer  
-restart\_file: character(:)  
-restart\_unit: integer  
-restart\_fmt: character(:)  
-restart\_freq: integer

+io\_new()  
-io\_init\_default(out this:IO,out stat\_info:integer)  
*set default io parameters for poiseuille*  
-io\_init(out this:IO,out io\_ctrl:Control,out io\_phy:Physics,out stat\_info:integer)  
*using default ctrl file name*  
-io\_init\_with\_ctrl(out this:IO,out io\_ctrl:Control,in io\_ctrl\_file:character(:),  
                  out io\_phy:Physics,out stat\_info:integer)  
*control file name given from outside*  
+io\_finalize(in this:IO,out stat\_info:integer)  
+io\_adjust\_parameters(inout this:IO,in d\_phys:Physics,out stat\_info:integer)  
+io\_display\_parameters(in this:IO,out stat\_info:integer)  
-io\_read\_ctrl(in this:IO,out ctrl:Control,out stat\_info:integer)  
-io\_read\_physics\_config(in this:IO,out d\_phy:Physics,out stat\_info:integer)  
-io\_read\_io\_config(in this:IO,out stat\_info:integer)  
+io\_read\_particles(in this:IO,inout d\_particles:Particles,out stat\_info:integer)  
+io\_write\_particles()  
-io\_write\_particles\_general(in this:IO,in rank:integer,in step:integer,in time:real,  
                            in num\_part:integer,in particles:Particles,in read\_particles:logical,  
                            out stat\_info:integer)  
-io\_write\_particles\_concrete(in this:IO,in rank:integer,in step:integer,in time:real,  
                              in num\_part:integer,in x:real(:,:),in v:real(:,:),in ap:real(:,  
                              :),in id:integer(:,:),in read\_particles:logical,out stat\_info:integer)  
+io\_open\_statistic(in this:IO,in rank:integer,in read\_particles:logical,out stat\_info:integer)  
+io\_write\_statistic()  
-io\_write\_statistic\_general(in this:IO,in rank:integer,in step:integer,in time:real,  
                            in statistic:Statistic,stat\_info:integer)  
-io\_write\_statistic\_concrete(in this:IO,in rank:integer,in step:integer,in time:real,  
                              in k\_energy:real,in mom:real(:),in v\_aver:real(:),out stat\_info:integer)  
+io\_open\_colloid(in this:IO,in rank:integer,in read\_particles:logical,out stat\_info:integer)  
+io\_write\_colloid()  
-io\_write\_colloid\_general(in this:IO,in rank:integer,in step:integer,in time:real,  
                          in colloid:Colloid,out stat\_info:integer)  
-io\_write\_colloid\_concrete(in this:IO,in rank:integer,in step:integer,in time:real,  
                            in f:real(:),out stat\_info:integer)  
+io\_write\_restart()  
-io\_write\_restart\_general(in this:IO,in rank:integer,in step:integer,in time:real,  
                          in num\_part:integer,in particles:Particle,out stat\_info:integer)  
-io\_write\_restart\_concrete(in this:IO,in rank:integer,in step:integer,in time:real,  
                            in num\_part:integer,in d\_x:real(:,:),in d\_v:real(:,:),  
                            in d\_ap:real(:,:),in d\_id:integer(:,:),out stat\_info:integer)  
+io\_check\_io\_config(in this:IO,out stat\_info:integer): logical  
*check if io parameters resonable*