```
//__________________________________________________________
//  1.- save_config
//---------------------------------------------------
save_config:={ FileName_config:= \
sprintf "C:/Evolver/octavio/PG_network/ElasticModuli/configs(N=200)/config%d.txt",
floor(config_number);

printf "%s %s %s %s %s\n", "DEFINE", "vertex", "attribute", "vertex_family", "integer" >>
FileName_config;
printf "%s %s %s %s %s\n", "DEFINE", "vertex", "attribute", "vertex_glycan_id", "integer" >>
FileName_config;
printf "%s %s %s %s %s\n", "DEFINE", "vertex", "attribute", "vertex_position_on_glycan", "integer" >>
FileName_config;
printf "%s %s %s %s %s\n", "DEFINE", "vertex", "attribute", "vertex_glycan_length", "integer" >>
FileName_config;
printf "%s %s %s %s %s\n", "DEFINE", "edge", "attribute", "edge_family", "integer" >> FileName_config;
printf "\n" >> FileName_config;
printf "%s\n", "vertices" >> FileName_config;
foreach vertex vv do printf "%d %f %f %f %s %d %s %d %s %d %s %f\n", \
                        vv.id, vv.x, vv.y, vv.z, "vertex_family", vv.vertex_family, \
                                    "vertex_glycan_id", vv.vertex_glycan_id, \
          "vertex_position_on_glycan", vv.vertex_position_on_glycan, \
                                    "vertex_glycan_length", vv.vertex_glycan_length >> FileName_config;

printf "\n" >> FileName_config;
printf "%s\n", "edges" >> FileName_config;
foreach edge ee do printf "%d %d %d %s %d %s %.6f %s %s %.3f %s %.3f\n", \
                         ee.id, ee.vertex[1].id, ee.vertex[2].id, "edge_family", ee.edge_family, \
                         "length0", ee.length0, "bare", "rx0", rx0, "ry0", ry0 >> FileName_config;

}//__________________________________________________________


//__________________________________________________________
//  2.- save_load_info
//---------------------------------------------------
save_load_info:={

FileName_load_info:= \
sprintf "C:/Evolver/octavio/PG_network/ElasticModuli/configs(N=200)/loading_info.txt";

FileName_energy_info:= \
sprintf "C:/Evolver/octavio/PG_network/ElasticModuli/configs(N=200)/energy_info.txt";

printf "%s %d %s %.6f %s %.6f %s %.6f %s %.6f %s %.6f %s %.6f %s %.6f %s %.6f %s %.6f %s %.6f
%s %.6f %s %.6f\n", \
      "config_number", config_number, "epsilon", epsilon, "total_energy", total_energy, "epsilon_xx",
epsilon_xx, "epsilon_yy", epsilon_yy, \
      "stress_xx", stress_xx, "err_stress_xx", err_stress_xx, "stress_xy", stress_xy, "err_stress_xy",
err_stress_xy, \
      "stress_yy", stress_yy, "err_stress_yy", err_stress_yy, "stress_yx", stress_yx, "err_stress_yx",
err_stress_yx >> FileName_load_info;

printf "%s %d %s %.6f %s %.6f %s %.6f %s %.6f %s %.6f %s %.6f %s %.6f\n", \
      "config_number", config_number, "total_energy", total_energy, \
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      "peptides_energy", spring_energy_nonlinear.value, "bending_energy_glycans",
bending_energy_glycan.value, \
      "stretching_energy_glycans", stretching_energy_glycans, "spring_energy_linear",
spring_energy_linear.value, \
      "stretching_energy_frame", stretching_energy_frame, "nematic_energy_frame",
nematic_energy.value >> FileName_energy_info;
}//______________________________________________________________


//______________________________________________________________
//  2.- save_moduli_info
//----------------------------------------------------
save_moduli_info:={

FileName_moduli_info:= \
sprintf "C:/Evolver/octavio/PG_network/ElasticModuli/configs(N=200)/moduli_info_config%d.txt",
floor(config_number);

printf "%s %d %s %.6f %s %.6f %s %.6f %s %.6f %s %.6f %s %.6f %s %.6f %s %.6f %s %.6f %s %.6f
%s %.6f %s %.6f %s %.6f %s %.6f %s %.6f %s %.6f %s %.6f %s %.6f %s %.6f %s %.6f %s %.6f %s
%.6f %s %.6f %s %.6f %s %.6f %s %.6f %s %.6f %s %.6f %s %.6f %s %.6f %s %.6f %s %.6f %s
%.6f\n", \
      "deformation_mode", deformation_mode, "pre_strain_xx", epsilon_xx_ref, "pre_strain_yy",
epsilon_yy_ref, "pre_stress_xx", stress_xx_ref, \
      "err_stress_xx", err_stress_xx_ref, "pre_stress_xy", stress_xy_ref, "err_stress_xy", err_stress_xy_ref,
\
      "pre_stress_yy", stress_yy_ref, "err_stress_yy", err_stress_yy_ref, "pre_stress_yx", stress_yx_ref, \
      "err_stress_yx", err_stress_yx_ref, \
      "total_energy", total_energy, \
      "peptides_energy", spring_energy_nonlinear.value, "bending_energy_glycans",
bending_energy_glycan.value, \
      "stretching_energy_glycans", stretching_energy_glycans, "spring_energy_linear",
spring_energy_linear.value, \
      "stretching_energy_frame", stretching_energy_frame, "nematic_energy_frame",
nematic_energy.value, \
      "Gxx_frame", G_tensor_frame[1][1], "Gxy_frame", G_tensor_frame[1][2], \
      "Gyx_frame", G_tensor_frame[2][1], "Gyy_frame", G_tensor_frame[2][2], \
      "Gxx_boundary", G_tensor_boundary[1][1], "Gxy_boundary", G_tensor_boundary[1][2], \
      "Gyx_boundary", G_tensor_boundary[2][1], "Gyy_boundary", G_tensor_boundary[2][2], \
      "stress_xx", stress_xx, "err_stress_xx", err_stress_xx, "stress_xy", stress_xy, "err_stress_xy",
err_stress_xy, \
      "stress_yy", stress_yy, "err_stress_yy", err_stress_yy, "stress_yx", stress_yx, "err_stress_yx",
err_stress_yx >> FileName_moduli_info;

}//______________________________________________________________
```