

Controllab Products B.V.
Hengelosestraat 705

7521 PA Enschede
The Netherlands

T +31(0)53 483 64 34
F +31(0)53 433 74 15

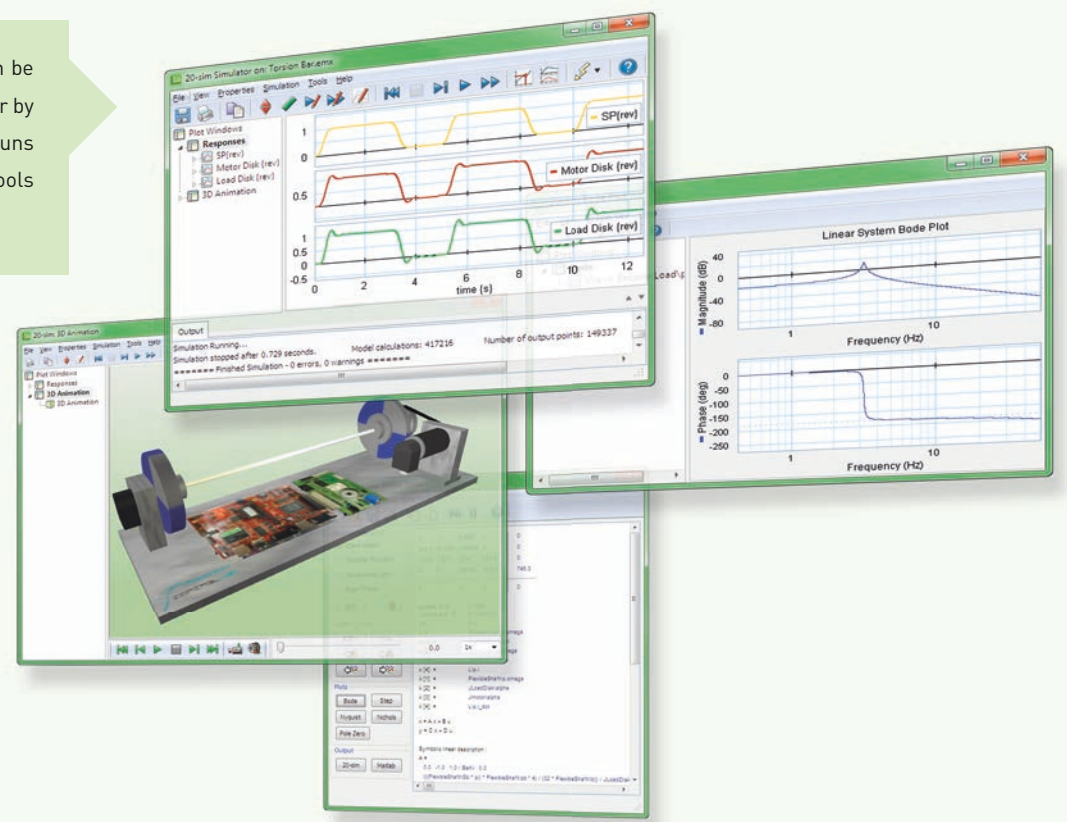
info@20sim.com
www.20sim.com

The power in modeling

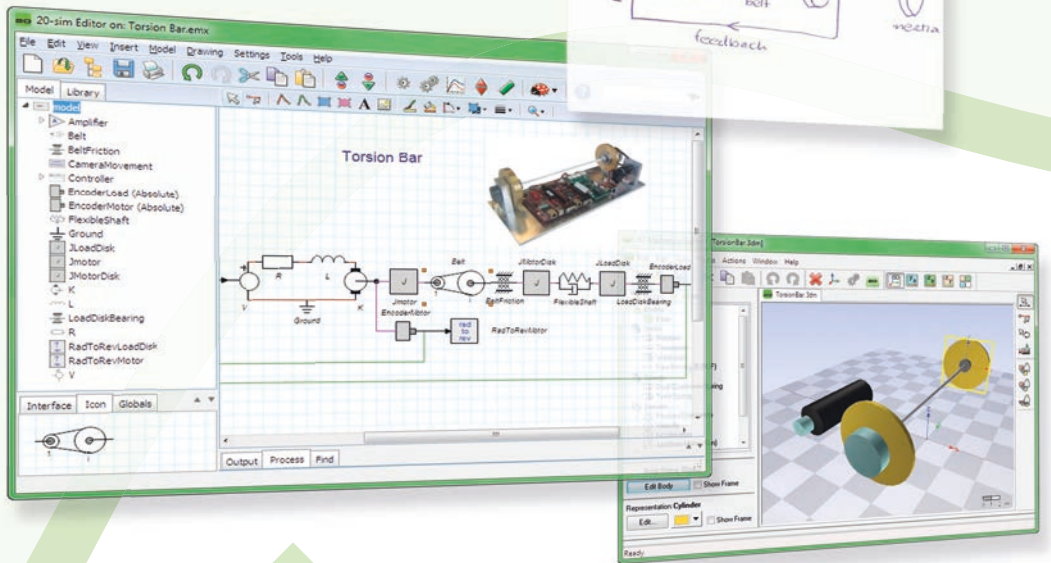
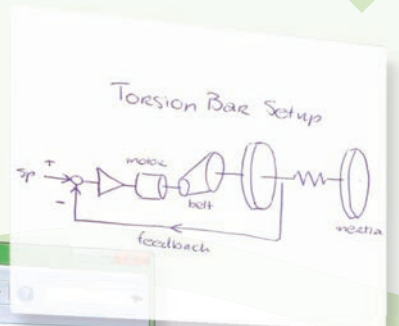
20-SIM

20-sim is a modeling and simulation program that allows you to enter models graphically, similar to drawing an engineering scheme. With these models you can simulate the behavior of multi-domain dynamic systems, including computer control loops. You can even generate C-code and run this code on hardware for rapid prototyping and HIL-simulation.

The complete model can be analyzed in the Simulator by performing simulation runs and using dedicated tools for analysis.



Every model starts with a sketch of the system.



The sketch is converted into a model by dragging and dropping library blocks.

C-code is generated automatically out of any 20-sim model.

```

stateDynamic (void)
{
    factor = 1 / (expTime + PIDtauD + PIDbeta);
    // 1.0 / (kk_step_size + xx_P[1]) + xx_P[1];
    // time = time mod SP/period;
    // XXIntegrator(kk_time, xx_P[1]);
    // time = 0;
    // xx_V[10] = 0.0;
}
// If SP/period < SP/stop_time
if (kk_V[10] < kk_P[1])
{
    // SP/period = SP/stop_time / SP/size_time
    kk_V[10] = (kk_V[10] - kk_P[1]) / kk_V[10];
}
else
{
    // If SP/period < SP/start_time
    if (kk_V[10] < kk_P[1])
    
```

Every 20-sim model can be exported as C-code and deployed on hardware.

