Virtual Universe Preview 1

The purpose of this preview is to show you some of the future Virtual Universe product aspect and functionalities. This preview is embedded into an AUTOMGEN8 exe file.

Virtual Universe will be the next generation fir 3D process simulation and supervision.

It will work into AUTOMGEN8 but also outside connected to some other programming softwares which are providing PLC programs execution on PC (OMRON, MITSUBISHI, etc.). Virtual Universe will be also able to connect directly to PLCs for supervision or PLC program simulation.

The concept of Virtual Universe is to use top of the art technologies used in 3D games (Irrlicht 3D engine, Newton physical engine, etc.) for 3D process simulation.

Compared to IRIS3D, Virtual Universe provides a lot of enhancements:

- realistic 3D render (shadows, texturing, etc.),
- interactive physic simulation (you can now “touch” the objects with the mouse while the simulation is running,
- powerful configuration system (more 3D files format, better ergonomics,
- Working outside of AUTOMGEN,
- so much more…

What do you need for running the preview?

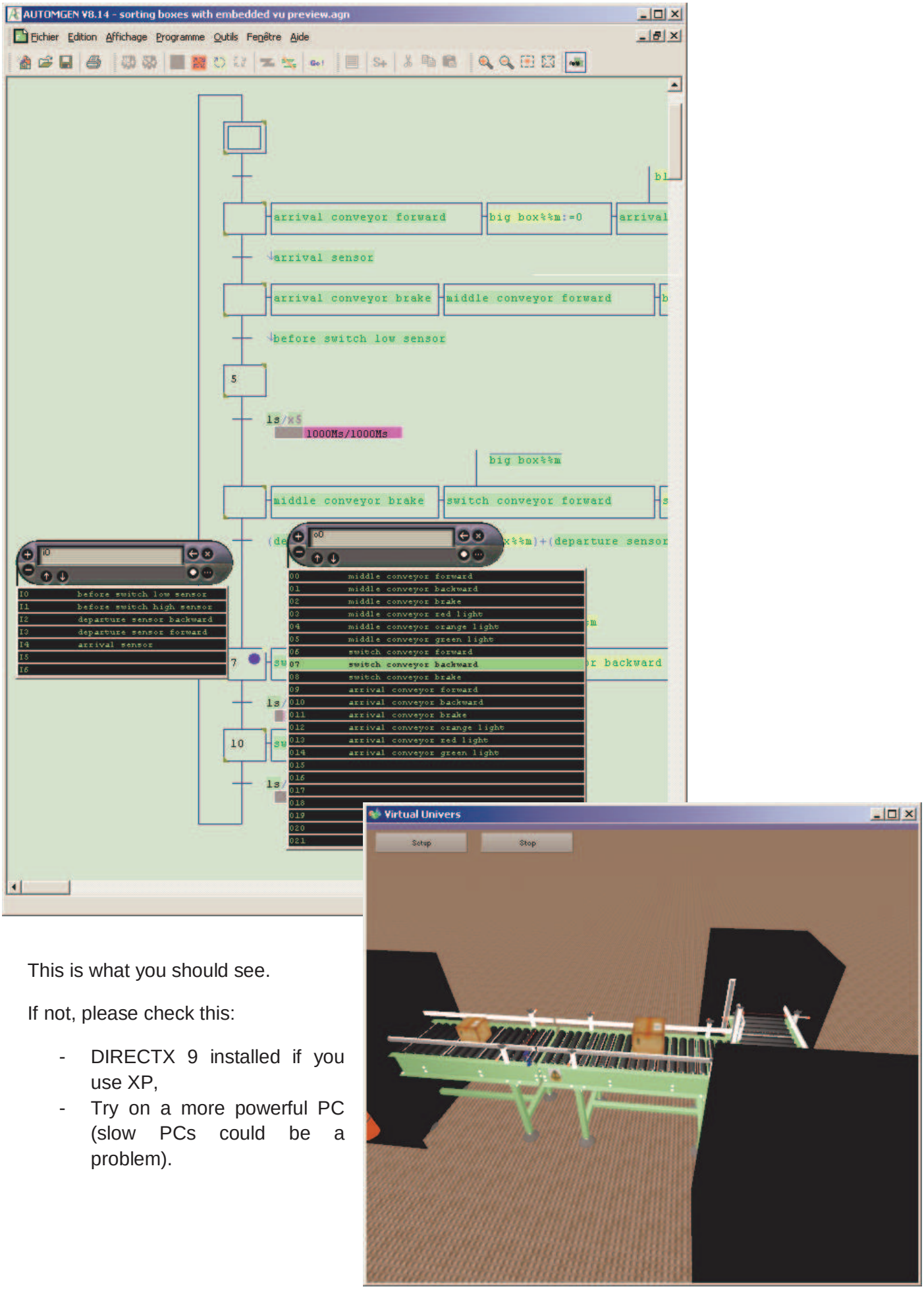
A PC running Windows XP or VISTA or WINDOWS 7. For Windows XP, DIRECTX 9 must be installed (you can download it from Microsoft web site if needed). A 3D video card is strongly recommended.

Virtual Universe also supports stereoscopic 3D vision technology provided by Nvidia.

How to run the preview?

Launching this file will launch AUTOMGEN8 and then Virtual Universe automatically.

Windows firewall will maybe ask you to allow AUTOMGEN to communicate over IP port 5000, please answer Yes.



This is what you should see.

If not, please check this:

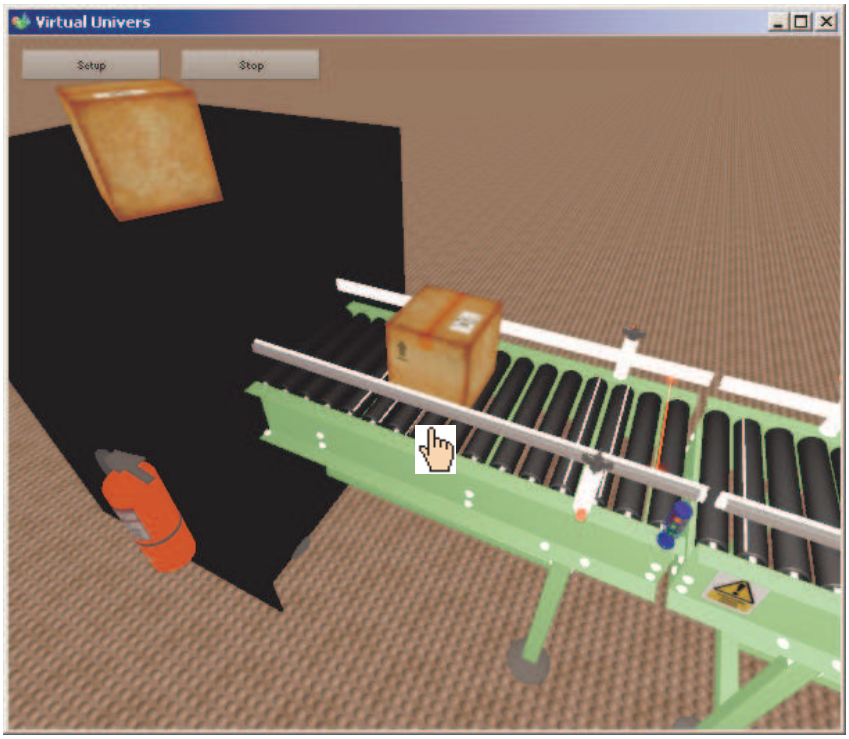
- DIRECTX 9 installed if you use XP,
- Try on a more powerful PC (slow PCs could be a problem).

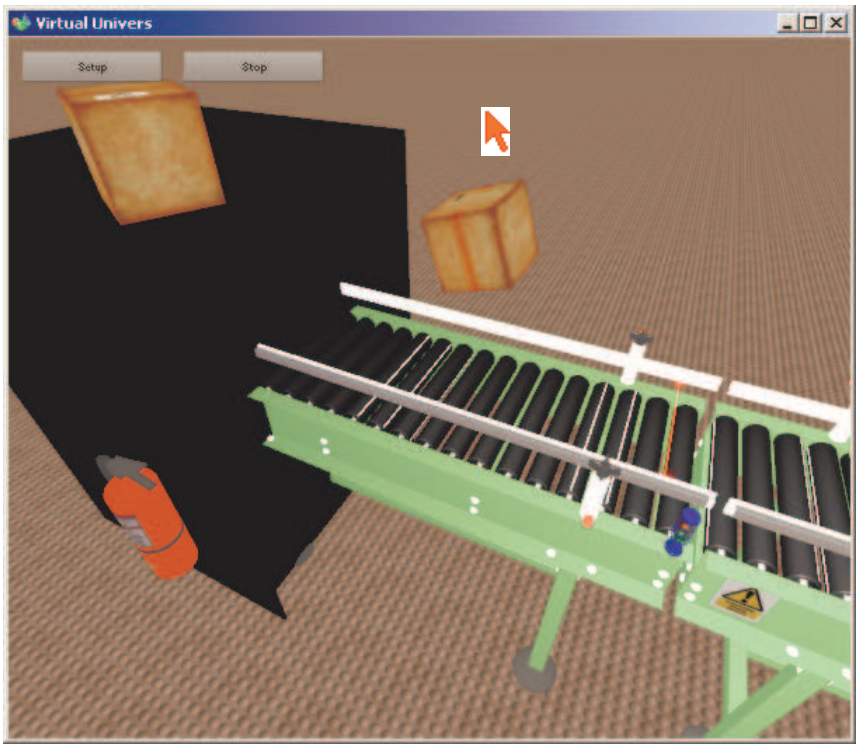
Navigating in the 3D world

- moving mouse cursor over the conveyors will automatically scroll the view,
- using mouse wheel or Up And Down keys will zoom in and out,
- click with right mouse button, hold on and move the mouse will rotate around the centered object.

Playing with boxes

Moving cursor over boxes will change mouse cursor (a hand). Click with the left button and move the mouse will turn the cursor to a red arrow and will generate forces to this object





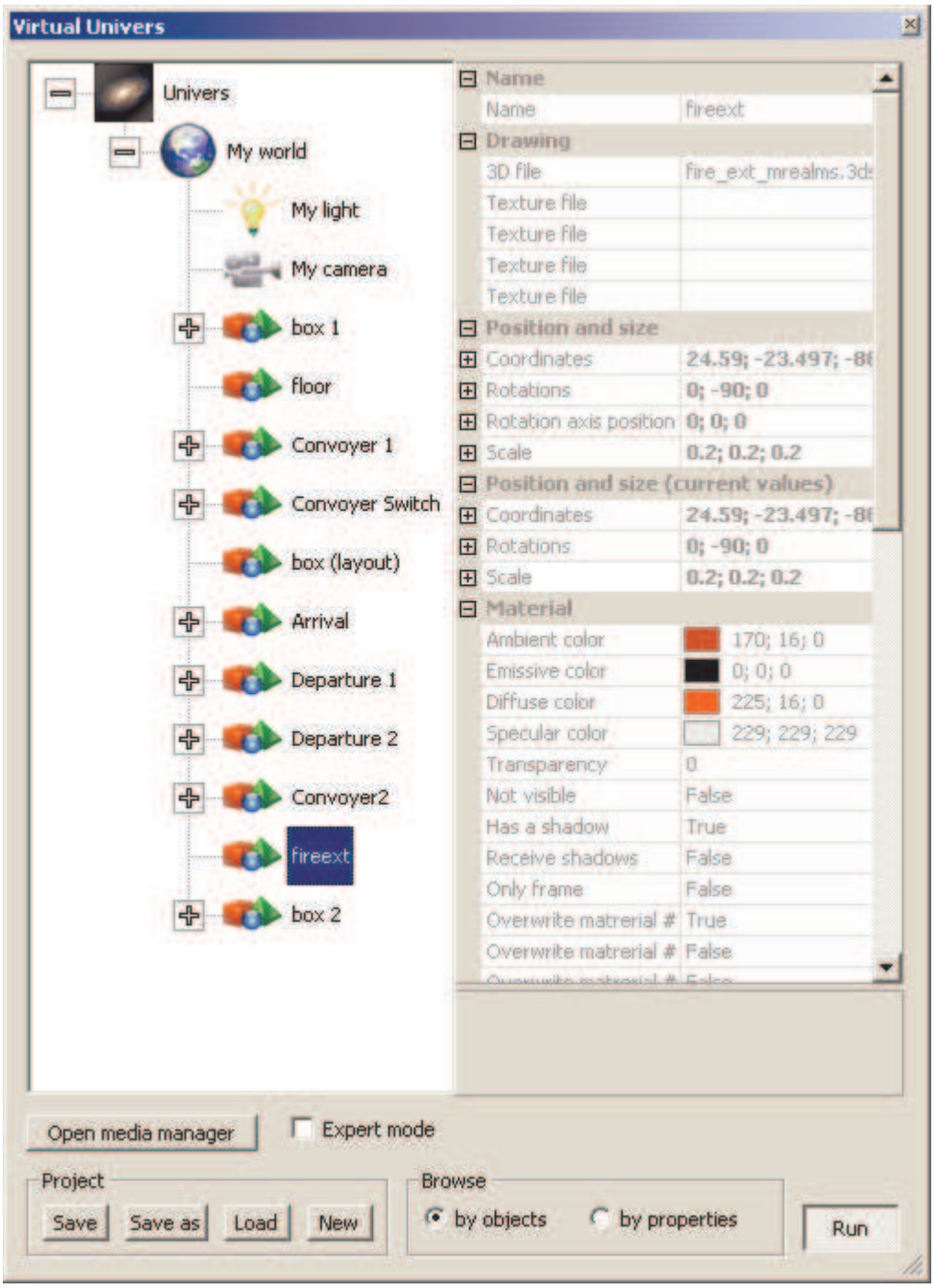
You can also

experiment this on rollers (you should be able to make them rolling manually), you can also stop a box when conveyors try to make them moving!

You can also play with the third box disposed on the top of the black item.

Browsing application configuration

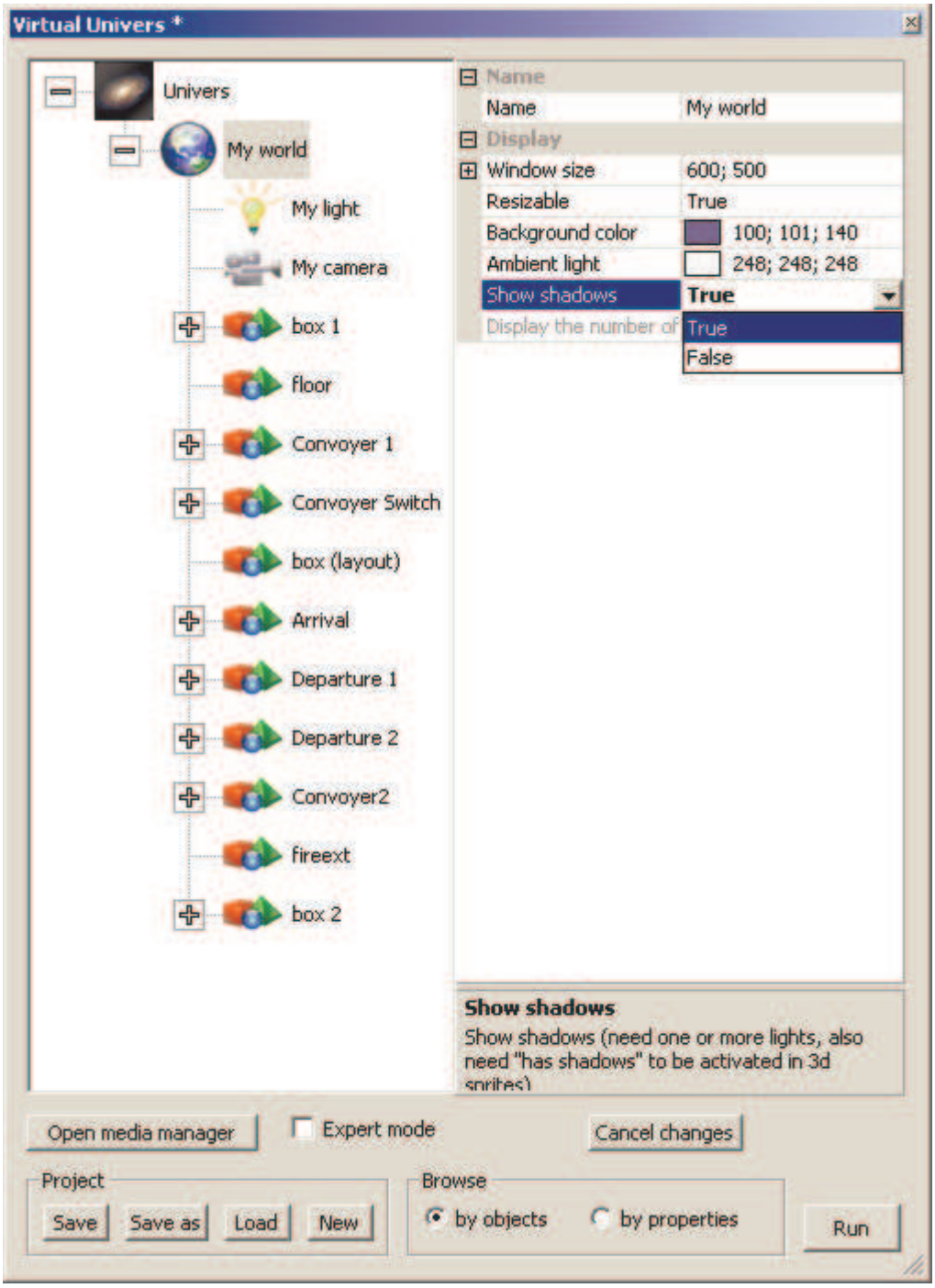
Click on “Setup” button will open the Setup Windows:

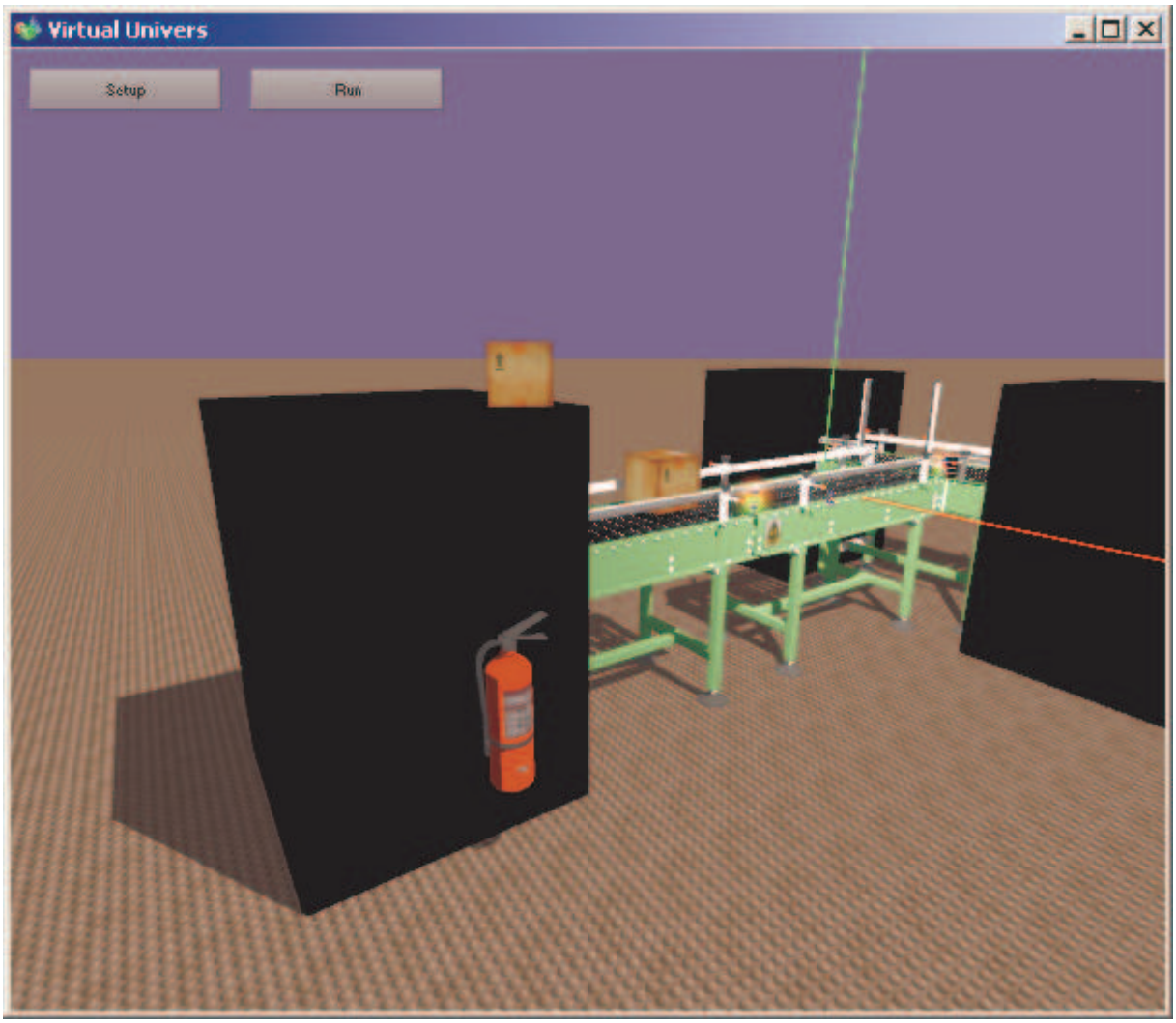


You can then browse this application configuration.

Enabling shadows

If you have a powerful 3D cars and also a fast PC (so you are lucky), you can enable shadows rendering here (you have to STOP the simulation before changing setup, you can then go back to RUN after):





I hope you will enjoy this preview (as much as I enjoy built it). Of course, a lot of functionalities are still missing in this preview.