Software tools for astronomical education

Riken

Toshiyuki TAKAHEI

Who am I ?

- Toshiyuki TAKAHEI
- Software Engineer for Visualization
- Universe Live Show
  Live Show System, Solar System Simulator, etc.
- 4D2U Project
  Realize its stereoscopic dome theater system
- Other projects
  ReKOS, Mitaka Plus, Uniview, Ladder, and lots more!

Solar System Simulator (Sssim)
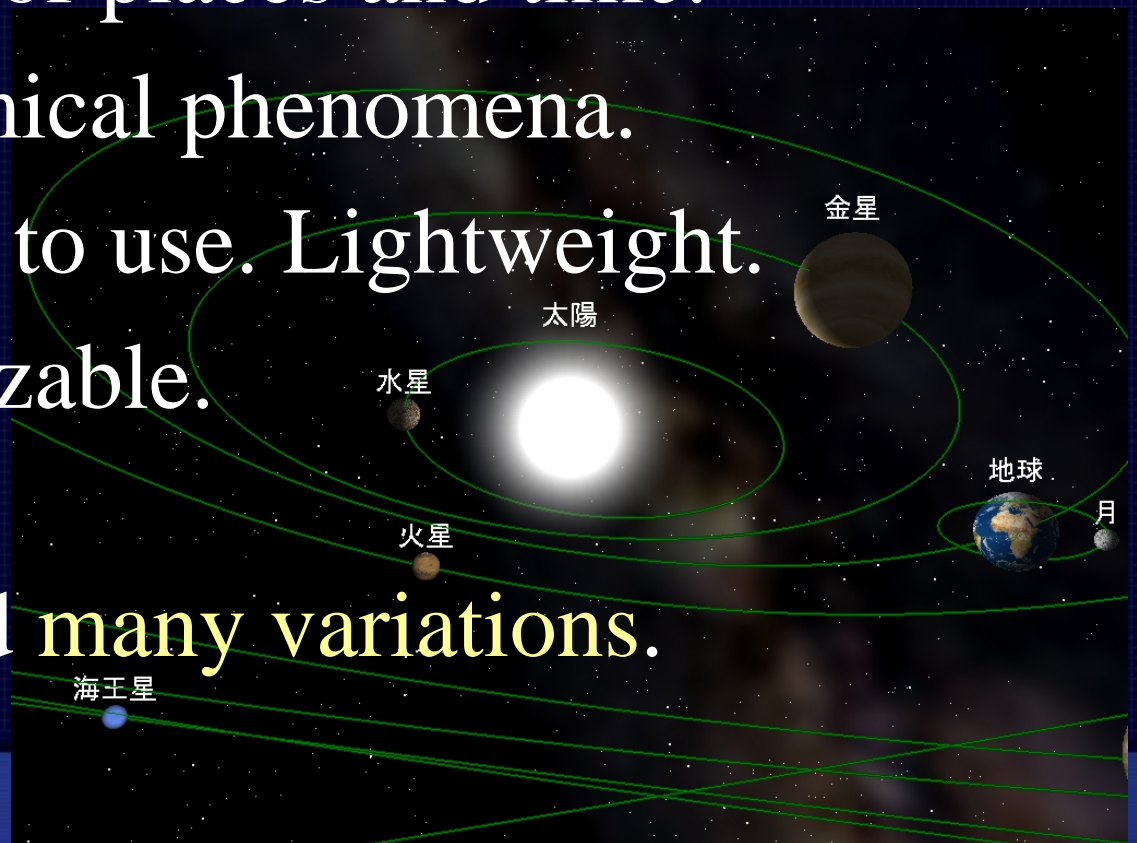
- Real-time 3D diagram of the Solar System
- Seamless transition of places and time.
- Interactive astronomical phenomena.
- Intuitive. Very easy to use. Lightweight.
- Scriptable. Customizable.
- Many platforms,
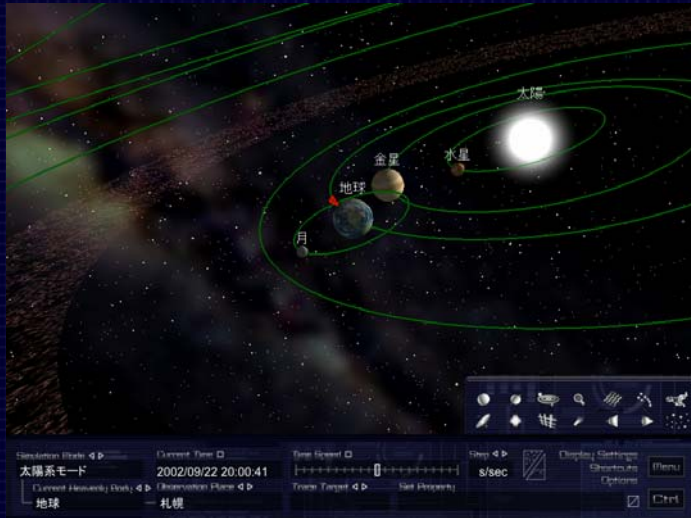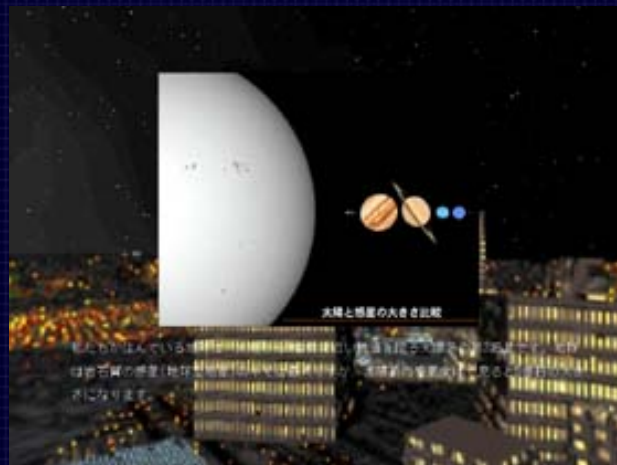 many languages and many variations.

Variations of the Solar System Simulator

Integrated in Universe Live Show (SssimPro)

KIOSK in Exhibitions (SssimExib)

Variations of the Solar System Simulator
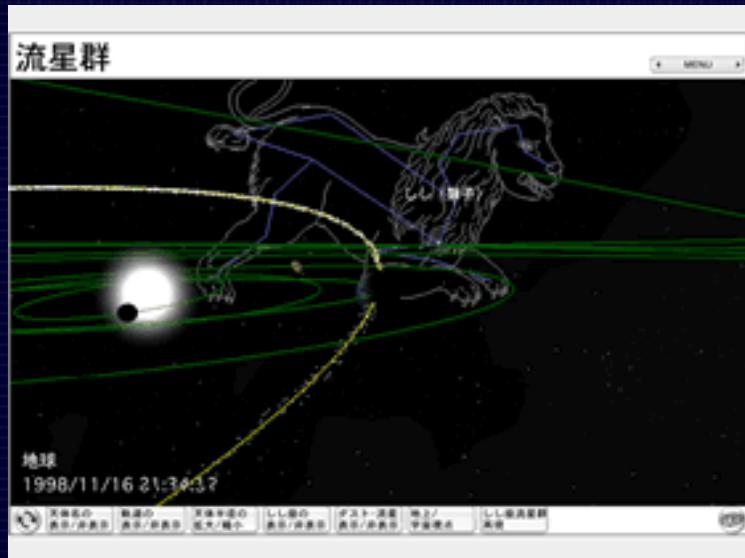
Education version
for classrooms
(SssimEdu)

Book with a CD-ROM (SST)

Online version (SssimOnNet)

Sssim Education version (SssimEdu)

- For classrooms.
- Minimal interface (with hidden full-access panel)
- Large screen, Large size text
- Preset contents for teaching
- No install required.
- Windows and Macintosh platforms.
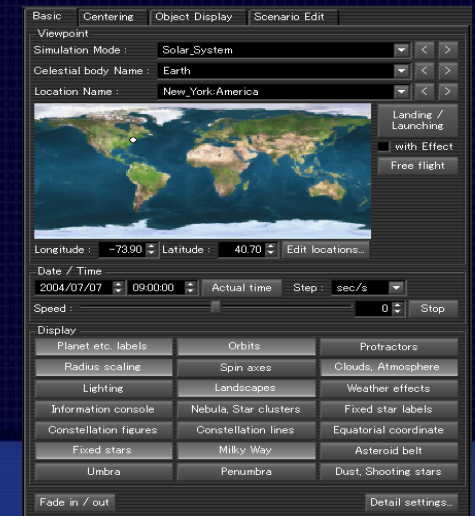- English and Japanese versions.

Sssim for Advanced Users (SssimStudio)

- For Advanced Users.

- Dual windows for live show system.

- Full access control panels.

- Script editor included.

- Customizable user interface.

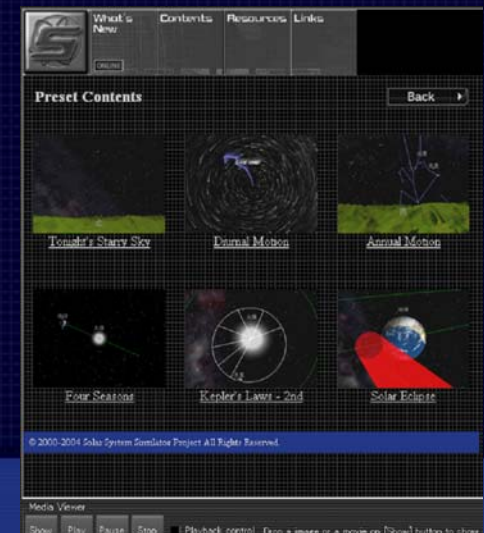# Customizable UI based on Html

- Visual User interface with text, images, movies, Flash, Ajax and more!

- Easy to modify. Fun to create a new UI.

- Upload it and share your know-how online.

- Good for interactive textbook.

Use Sssim Studio to customize Sssim Edu

- Create a new preset for SssimEdu by SssimStusio's script editor.

- Mix SssimEdu's usability and SssimStudio's powerful authoring features.

- Create your own stand alone teaching tool.

What's next? Customizable Mitaka

- Mitaka, a powerful space viewer from 4D2U
- Now I'm working on its advanced version: Mitaka Plus
- More usability, more stability, more customizability.
- Adding the scripting feature like Sssim.
- beyond the Solar System!

Conslusion

- Solar System Simulator, <u>one of</u> my projects.
- SssimEdu for classroom.
- SssimStudio for advanced users.
- Create your own UI with Html and share it!
- Learn its scripting feature for customization.
- Mitaka Plus, scriptable space simulator.