Kid's Software for Linux

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Presentation Overview

- Kinds of Kid's Software

- Projects to create and promote Free and Open Source Kid's Software

- Examples of Kid's Software for Linux (and other Operating Systems!)

- Linux Distributions for Kids

Kinds of Kid's Software

- Entertainment
  - Video games
    - Games without educational value
  - Creativity
    - Painting
    - Music
    - Writing
- 'Edutainment'
  - Video games with educational value
- Strictly Educational

Creativity Examples

- Kid Pix
- MusicAce
- PrintShop

Applications which are more like fun tools,
   rather than games with goals, levels and points

In real life, compare to: Crayons and paper, piano.

Video Game Examples

- Pac-Man
- Asteroids
- Dig-Dug
- Etc.

Beware of violent or adult-situation games, especially for popular video game consoles! (Check ratings!)

In real life, compare to: Soccer, Hop-Scotch.

'Edutainment' Examples

- Oregon Trail
- Reader Rabbit
- Tux Typing

Educational content meets video game interface

In real life, compare to: Crosswords.

Strictly Educational Examples

- XPlanets
- KStars
- LOGO
- GPeriodic

Not meant to be "fun" per se.
Not games, puzzles or toys.

In real life, compare to: Calculator, telescope.

Projects to create Open Source Kid's Software

- Tux4Kids
  - www.tux4kids.org
  - www.tux4kids.net
  - Develops and promotes 'edutainment' for various platforms, with Tux the Linux Penguin mascot

Projects to create Open Source Kid's Software

- The KDE Edutainment Project
  - http://edu.kde.org/
  - Educational software for the K Desktop Env.
  - Primary focus is on schoolchildren aged 3 to 18

Projects to create Open Source Kid's Software

- Open Source Education Foundation (OSEF)
  - www.osef.org
  - Formed as non-profit to help Tucson AZ school
  - Designed "K12 Box" Linux-based PC system for school labs
  - Creates "Knoppix for Kids" bootable Linux CD

Projects to create Open Source Kid's Software

- Organization for Free Software in Education and Teaching
  - www.ofset.org
  - Goal is to promote the development of free software for the educational system and teaching
  - Rooted in France, but with founding members all over the world.
  - Creates "FreeDUC" bootable Linux CD

Organization for Free Software in Education and Teaching

Projects to create Open Source Kid's Software

- Simple End User Linux / Educational (SEUL/edu)
  - http://www.seul.org/edu/
  - Dedicated to furthering the use of Linux and other open resources in education.
  - Covers all aspects of educational uses of Linux, by teachers, parents, and students.
 - Mailing list, software index, case studies...

Projects to create Open Source Kid's Software

- Schoolforge
  - www.schoolforge.net
  - Portal site ("foundry") which unifies independent organizations that advocate, use, and develop open resources for primary and secondary education.

SCHOOLFORGE
Working together to unleash the power of open source tools in education.

Projects to create Open Source Kid's Software

- Schoolforge News-Journal
  - www.opensourceschools.org
  - Slashdot-like news site for news on Open Source in schools
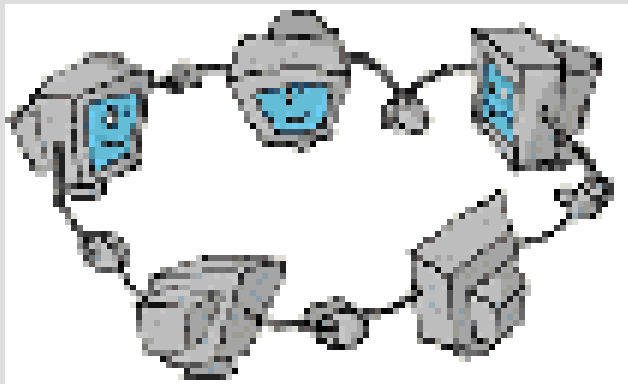
Projects to create Open Source Kid's Software

- Project Gutenberg
  - http://www.gutenberg.net
  - A repository of free electronic books (eBooks)
  - Started in *1971* by Michael Hart
    - He was given an operator's account with *$100,000,000* of computer time the Materials Research Lab at the University of Illinois

Projects to create Open Source Kid's Software

- Wikipedia
    - http://en.wikipedia.org/
    - A project to create a complete and accurate free content encyclopedia.
    - Contains over 175,000 articles in English, plus articles in other languages

Projects to create Open Source Kid's Software

- GOVIA is Ostensible Video, Imagery and Audio
  - http://govia.osef.org
  - An upcoming free (as in liberty) multimedia repository

Projects to create Open Source Kid's Software

- Debian Jr.
  - http://www.debian.org/devel/debian-jr/
  - An internal project to make Debian an OS that children of all ages will want to use

- DebianEdu
  - http://wiki.debian.net/?DebianEdu
  - A project to improve Debian to make it the best distribution for educational use.

In a sense, collections of packages and task-packages.

Projects to create Open Source Kid's Software

- K12Linux in Schools Project
  - www.k12os.org
  - Information, downloads and case studies on:

  - K12LTSP
    - www.k12ltsp.org
    - Linux Terminal Server Project (thin clients)

  - K12Linux
    - www.k12linux.org
    - Tutorials & guides for using Linux as a school server

Projects to create Open Source Kid's Software

- Free Software in Education
  - http://www.gnu.org/education/
  - Free Software Foundation's (FSF) edu. promotion site
  - Includes software index
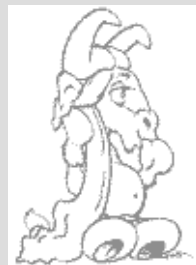
Projects to create Open Source Kid's Software

- OpenWebSchool
  - http://www.openwebschool.de/index_en.html
  - Offers web-based "learning units" for students
  - Teachers can use and expand upon existing courses, in an Open Source fashion
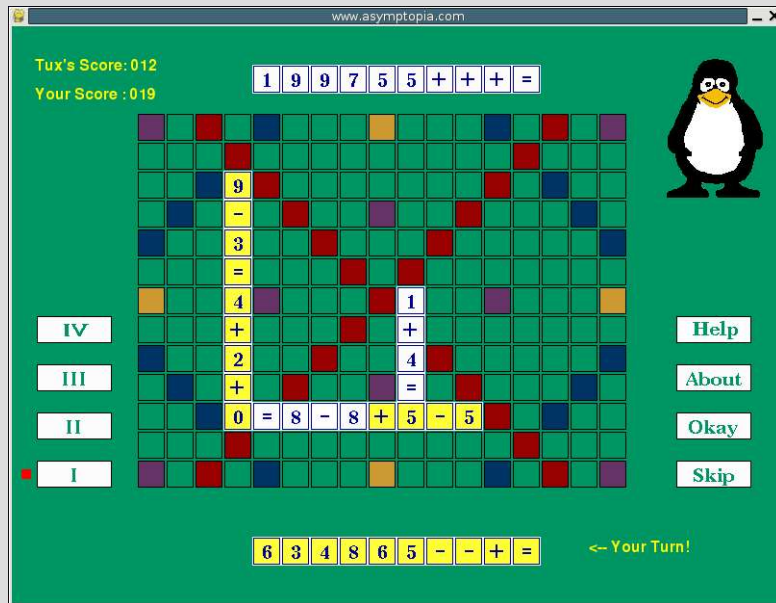
Open Web School

Kid's Software for Linux

Tux Typing
http://tuxtype.sf.net/
- Typing tutor from Tux4Kids
- For Linux and Windows

Kid's Software for Linux

TuxMathScrabble

www.asymptopia.org

- "Scrabble" style game, but with math formulas
- Written in Python

Kid's Software for Linux

MathWar

- Like the card game "War," but with math operations

Kid's Software for Linux

Simultrans

www.simutrans.de

- Economic and transport simulation game
- For Linux, Windows & BeOS
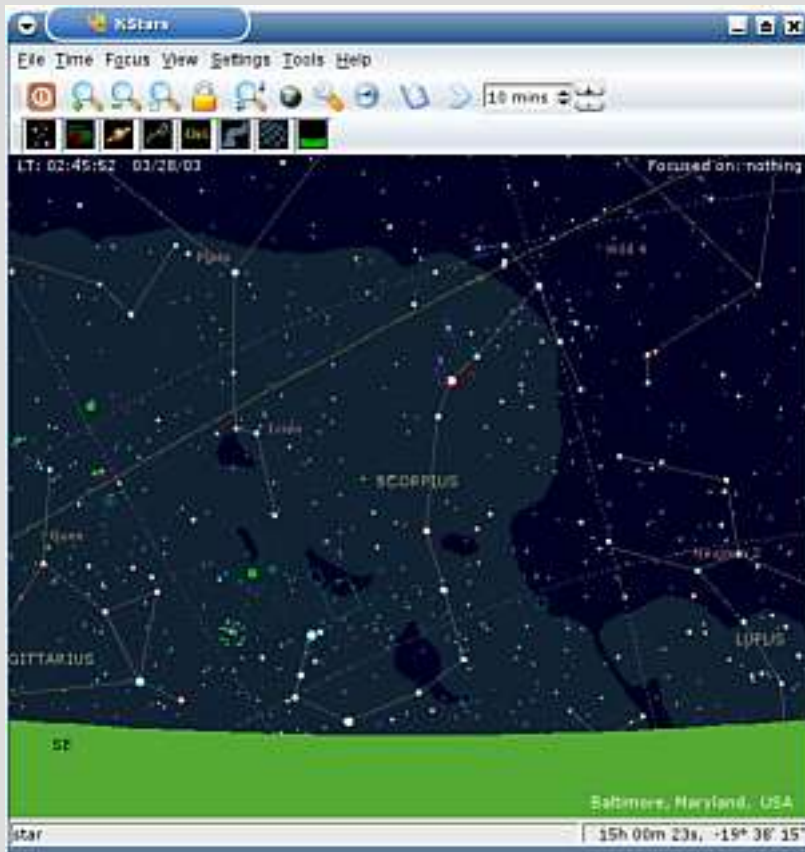
Kid's Software for Linux

Senken

www.contrib.andrew.cmu.edu/ ~tmartin/senken/

- Buy the land, build the infrastructure, balance the books, and convince people to move in.
- Has both goal-oriented and "just play" modes.

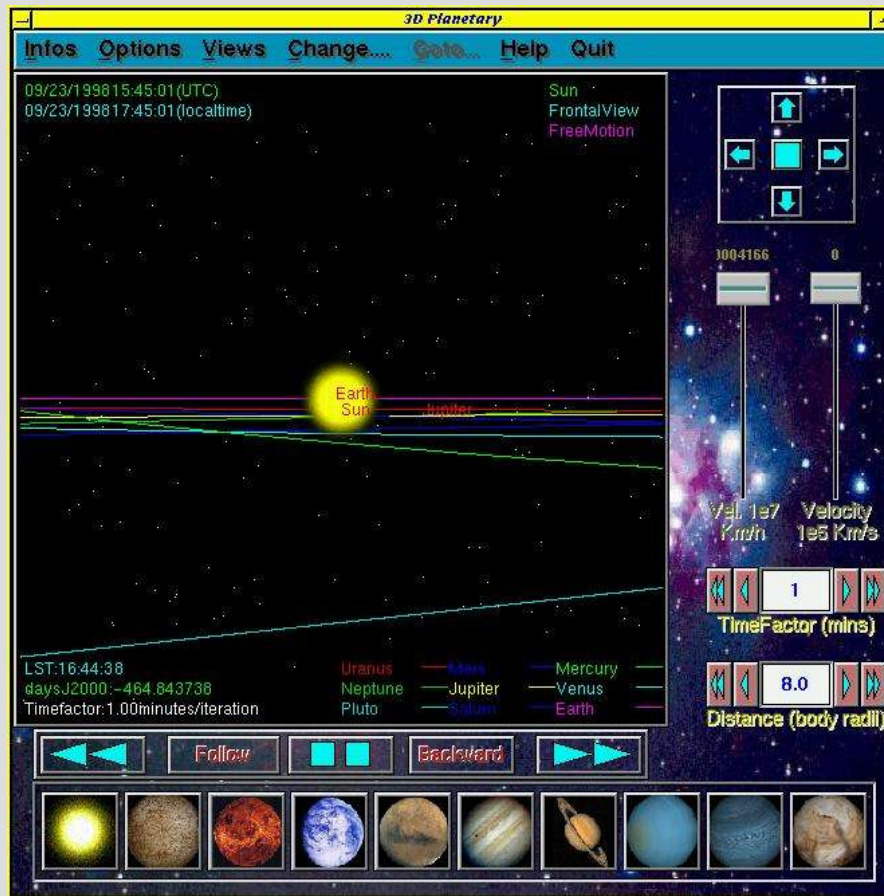# Kid's Software for Linux

KStars

http://edu.kde.org/kstars/

- Graphical simulation of night sky
- Includes over 125,000 stars, 13,000 deep-sky objects, the planets, and thousands of comets and asteroids
- KStars can control motorized telescopes!
- KStars is scriptable via DCOP, and includes a script building tool
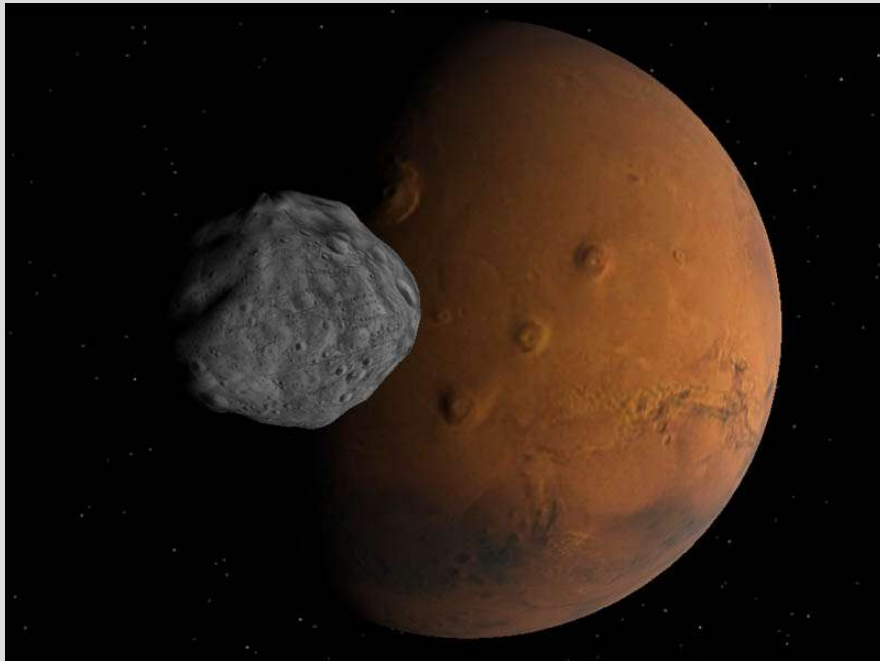
Kid's Software for Linux

3D Planetarium

http://3dplanetarium.seul.org/

- Real-time animated solar system
- Like a virtual telescope
- Uses MesaGL and FLTK
- For Linux, and soon Windows

Kid's Software for Linux

Celestia

www.shatters.net/celestia/

- Similar to 3D Planetarium
- Doesn't limit you to viewing from Earth
- (More like a virtual space ship, than a virtual telescope)
- For Linux, Windows and Mac OS X

Kid's Software for Linux
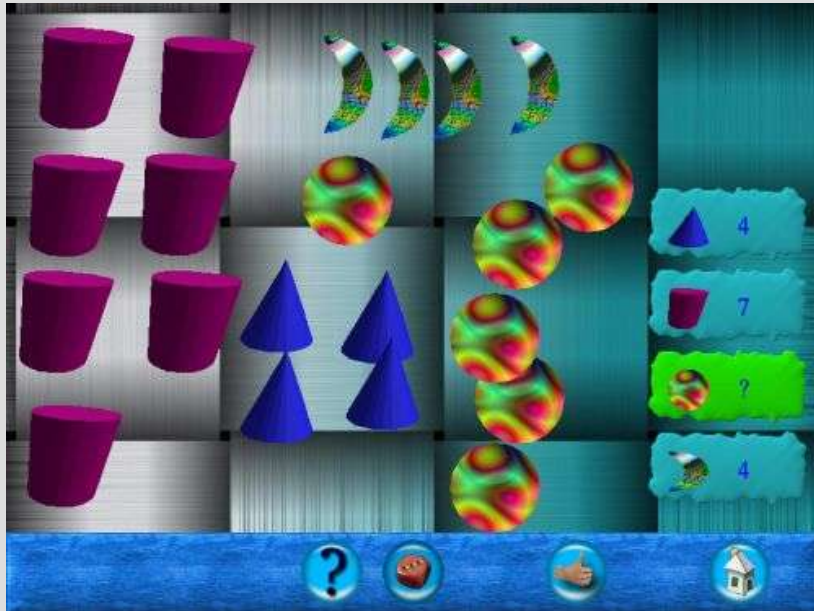

Squeak

www.squeak.org

- A highly-portable Smalltalk-80 implementation
- Its virtual machine is written entirely in Smalltalk
- Includes sound, music, graphics, network capabilities
- Developed at Apple in 1996

www.squeakland.org

- Lots of games & educational software written *in* Squeak

Kid's Software for Linux

GCompris
www.ofset.org/gcompris

- Full featured educational application with various activities for children 3 to 10
- Plug-in based; adding new features is easy
- For Linux and Mac OS X

In french GCompris is pronounced "j'ai compris" and means "I Have Understood"
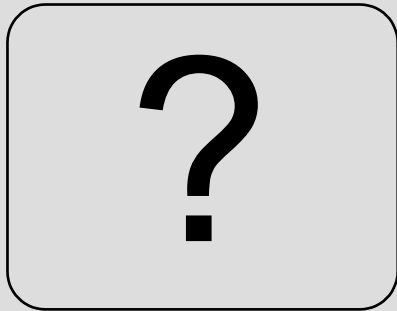
Kid's Software for Linux

Childsplay
http://childsplay.sf.net

- Similar to Gcompris
- Based on Python and SDL
- Also plug-in based

Kid's Software for Linux

PyTrail

sourceforge.net/projects/pytrail/

- Based on "Oregon Trail"
- Uses Python & PyGame
- *Development seems stalled! (Why don't we help!?)*

Kid's Software for Linux

Tux Paint

www.newbreedsoftware.com/tuxpaint

- Drawing/painting geared towards young kids
- Translated to 30+ languages
- Runs on Linux, BSD, Windows, Mac OS X, BeOS

(How could I *not* mention it!?)

Kid's / Educational Linux Distros

- Knoppix for Kids
  - http://www.osef.org/k4kids-mirrors.html
  - Knoppix with non-kid-friendly software removed/hidden
  - Mostly meant as a demo of Linux for parents and teachers, not as a Linux distro. for kids.

Kid's / Educational Linux Distros

- FreeDUC
  - http://www.ofset.org/freeduc-cd/
  - Another Knoppix-based live Linux CD
  - Created by OFSET
  - Focused on schools

Kid's / Educational Linux Distros

- Hailstorm BlueLinux
  - www.bluelinux.org
  - An installable Linux distro. focused on education
  - *Seems to have stalled since May 2002!*

Conclusion

Tons of organizations, projects and websites exist.

More and more software is being created.

Now is a perfect time to start examining Free & Open Source for schools and children...

...especially since most of it is being made available for non-Free operating systems (Windows and Mac)

Once critical mass is acheived, switching to a completely Open Source solution (Linux operating system) will be completely viable!