



X-Smiles Workshop 2001

Platform for X-Smiles

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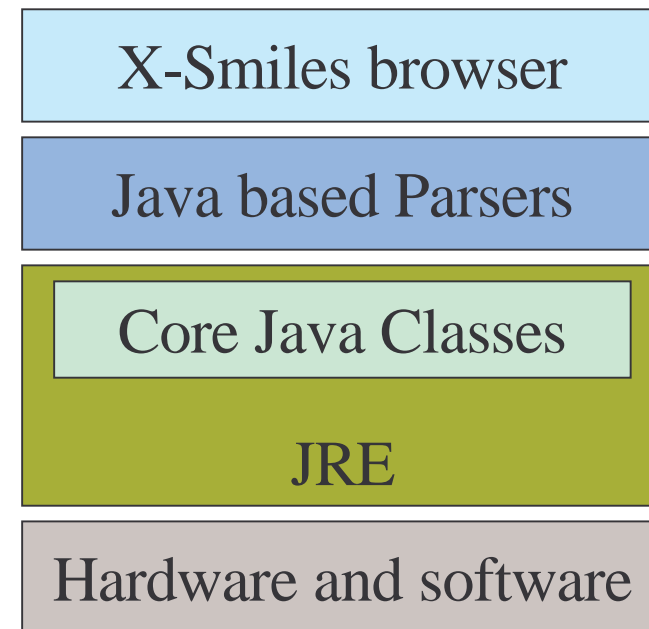
<http://www.x-smiles.org/>

- Introduction
- Overview of the platform
 - Operating system
 - Java Runtime Environment
- Conclusions

- What is platform?
 - In the literary sense “A raised surface”
 - In the technical sense “Underlying hardware and/or software for a system”
- We emphasize on the software
- X-Smiles uses “Java”, hence for executing byte code JRE is required within the platform

Overview of the platform

- Hardware: Currently, using PC environment, though primitive tests have been carried in embedded system
- Software: Comprises of Operating System - Linux w/o X-server and system drivers



Overview of the platform (contd..)

- Java Runtime Environment:
 - Kaffe's 'clean-room' implementation is used
 - For graphical applications, rendering is done using framebuffer
 - Framebuffer provides the high level abstraction of the graphics h/w
 - Vesafb is the framebuffer driver for the Intel architecture, which supports VESA2.0 compliant graphics hardware.
 - 8bpp to 24bpp and 640x480 1600x1200

Conclusions

- With a working prototype system, the next step is to ‘tweak’ it to achieve better performance
 - Have native decoders for video rendering
 - Currently used JRE does not provide the much needed functionality to support all of the features of the browser
 - Memory foot print and processor load is still under scrutiny