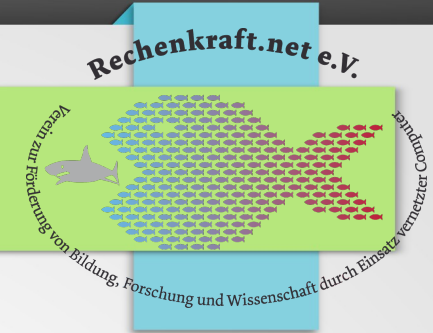


News from Rechenkraft.net

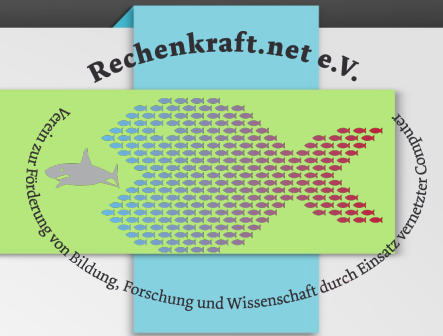


What's Rechenkraft.net doing?



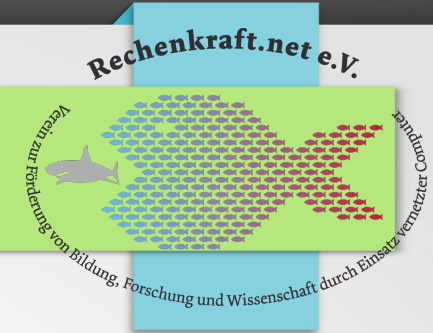
- German non-profit organisation (~70 Members)
- Founded 2004
- maintaining RNA-World and yoyo@home
- attending exhibitions
 - LinuxTag Chemnitz (March 2013)
 - LinuxTag Berlin (May 2013)
- supporting a local Hackergroup in Marburg

News from yoyo@home



- advanced from wrapper apps to native apps
- 2,400 users, 4,500 hosts (active), approx. 8TeraFLOPS
- Harmonious Tree subproject almost finished
- Newest subproject: Odd Weird Number Search

News from RNA-World



- advances RNA research by structural prediction using the INFERNAL toolkit
- 4,000 users, 16,000 hosts (registered), active: 150,300
- long running (500-2,000h) workunits without checkpointing → users are displeased → suspension
- implementation of BOINC VirtualBox feature needed!
- allow User Job Submission via web interface

Vboxwrapper and RNA-World



- Traffic costs time and money! → VM must be small
- CPU time is precious! → VM has to snapshot and restore
- Computation could take a while! → deadline extension

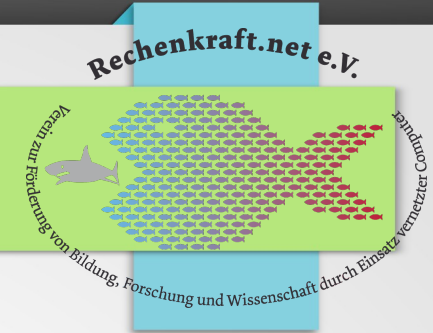
- Shrinking a basic Debian 6 installation to 680MB (180MB compressed) is possible
- Do computation inside the VM for safer snapshot/restore
- Use trickle up messages to extend deadline for long tasks

Problems with vboxwrapper



- 256 character path length limit on Windows
- BOINC as a Service (Windows) prevents execution
- Latest VirtualBox has recovery issues
- Exit Code 194 issue (false negative abort)
-

What's still to do?



- adopt new User Job Submission for RNA World
- attend more exhibitions
- recruit more volunteers
- recruit more paying members
- recruit more „problem solvers“