

Update On Scientific Linux

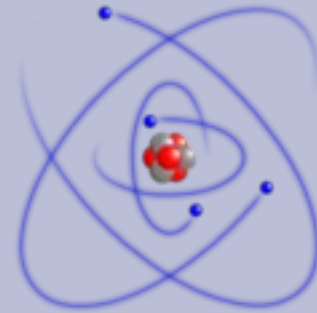
Troy Dawson

dawson@fnal.gov

HEPIX Spring 2009

May 28, 2009

Witty Comment

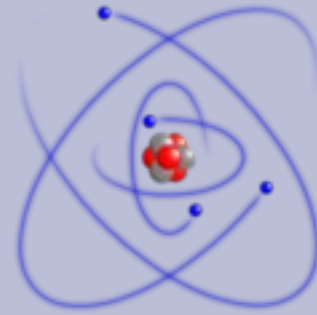


My friend was on duty in the main lab on a quiet afternoon. He noticed a young woman sitting in front of one of the workstations with her arms crossed across her chest, staring at the screen.

After about 15 minutes he noticed that she was still in the same position, only now she was impatiently tapping her foot.

He asked if she needed help and she replied: "It's about time! I pressed the F1 button over 20 minutes ago!"

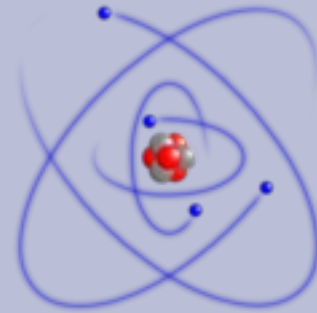
Scientific Linux



- Presentation Overview
 - 5 Year Anniversary
 - The last six months
 - What we are currently working on
 - What we see in the future
 - Plenary Discussion

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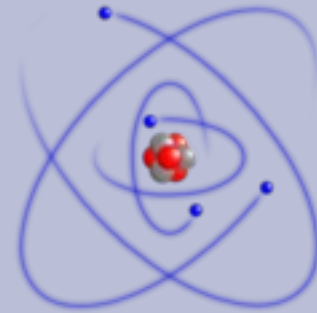
2004 – 2009 – 5 Year Anniversary



- Although work on Scientific Linux had gone on before, it's official formation was at the May 2004 Hepix in Edinburgh Scotland
 - Scientific Linux's original name was HEPL (High Energy Physics Linux)
It was changed just a month or two before the release.

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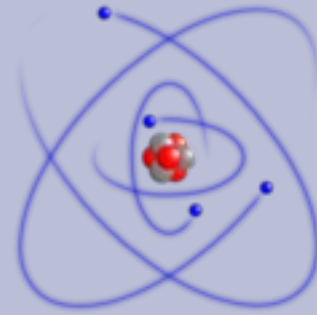
2004 – 2009 – 5 Year Anniversary



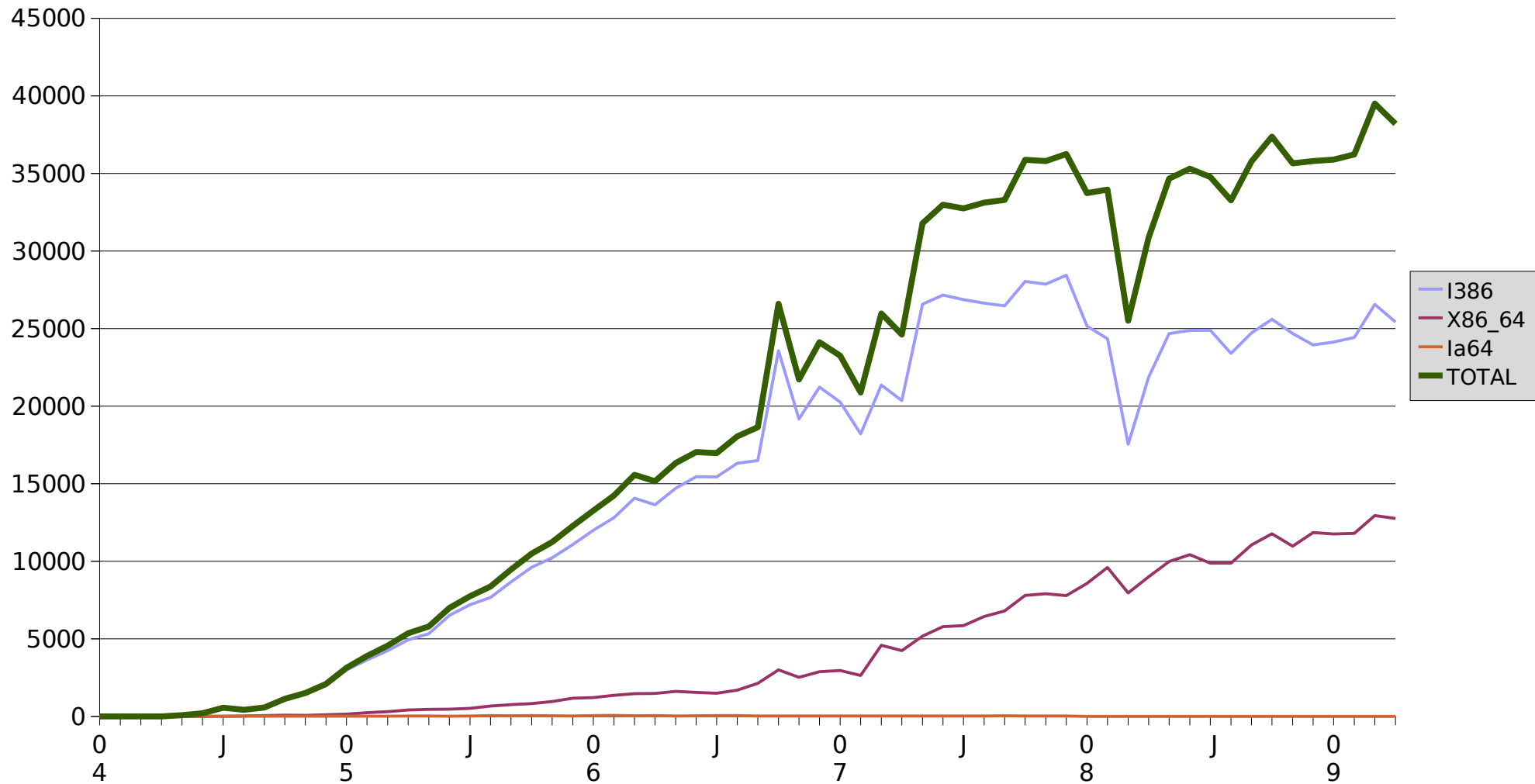
- The following statistics were gathered from <ftp.scientificlinux.org> log files
 - These numbers are the minimum. We know that they are higher.
 - These numbers are based on the yum and apt access to the errata
 - We currently have 28 public mirrors, and know of 185 sites mirroring us. These statistics do not represent any of the mirror sites.

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2004 – 2009 – 5 Year Anniversary

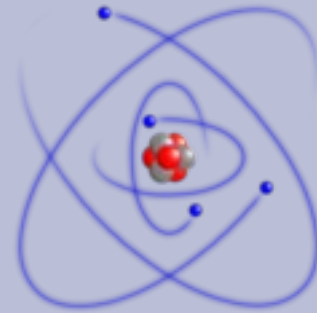


5 Year Anniversary - 2004 to 2009 - By Arch



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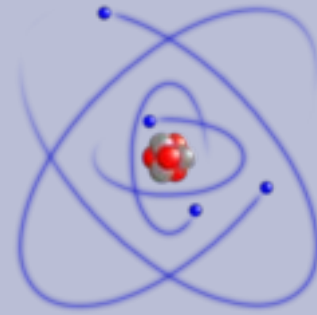
2004 – 2009 – 5 Year Anniversary



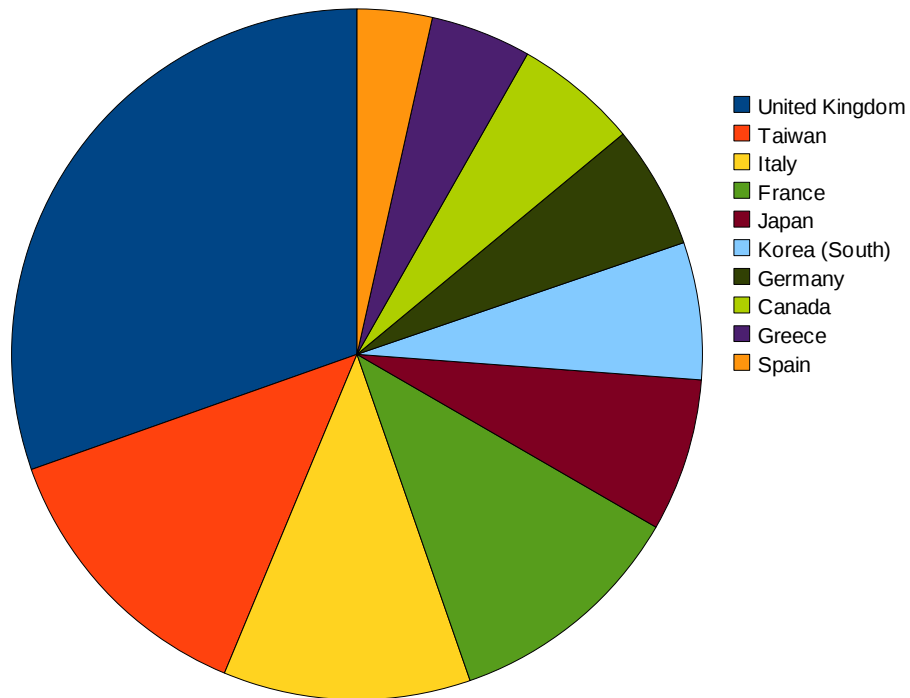
- The following charts are based on the number of files, and/or the number of megabytes downloaded from <ftp.scientificlinux.org>
- Networks in the US are not counted
- Networks that might be in several countries, such a .org or .net have been taken out as well.
- This isn't to prove anything, these charts are made just for fun.

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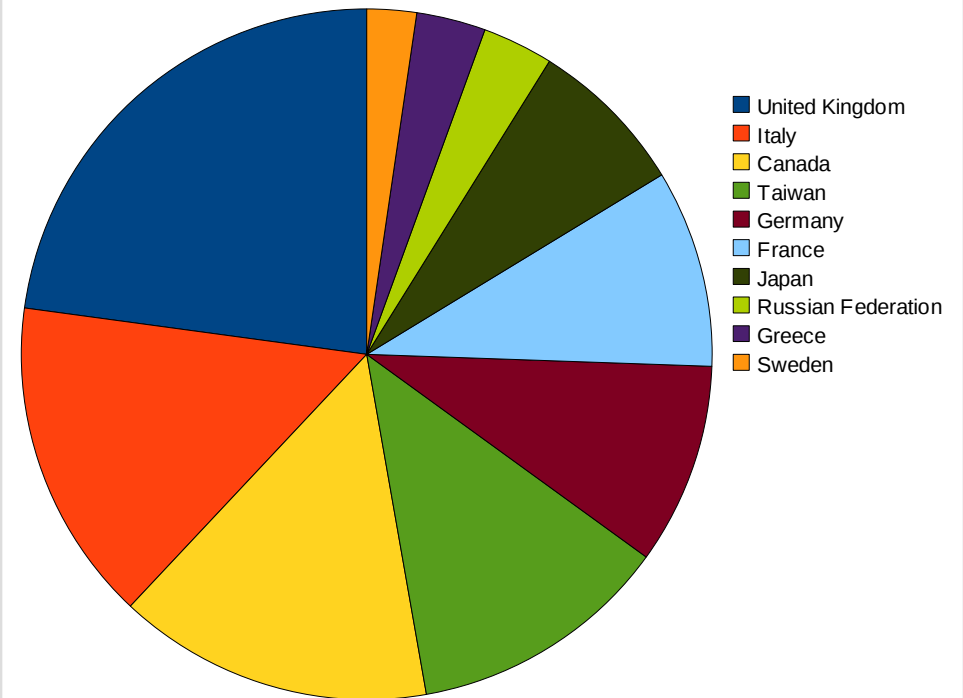
2004 – 2009 – 5 Year Anniversary



May 2005
Top Downloads of Files

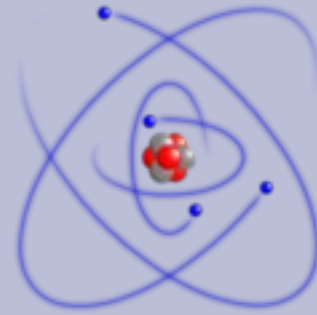


October 2005
Top Downloads of Files

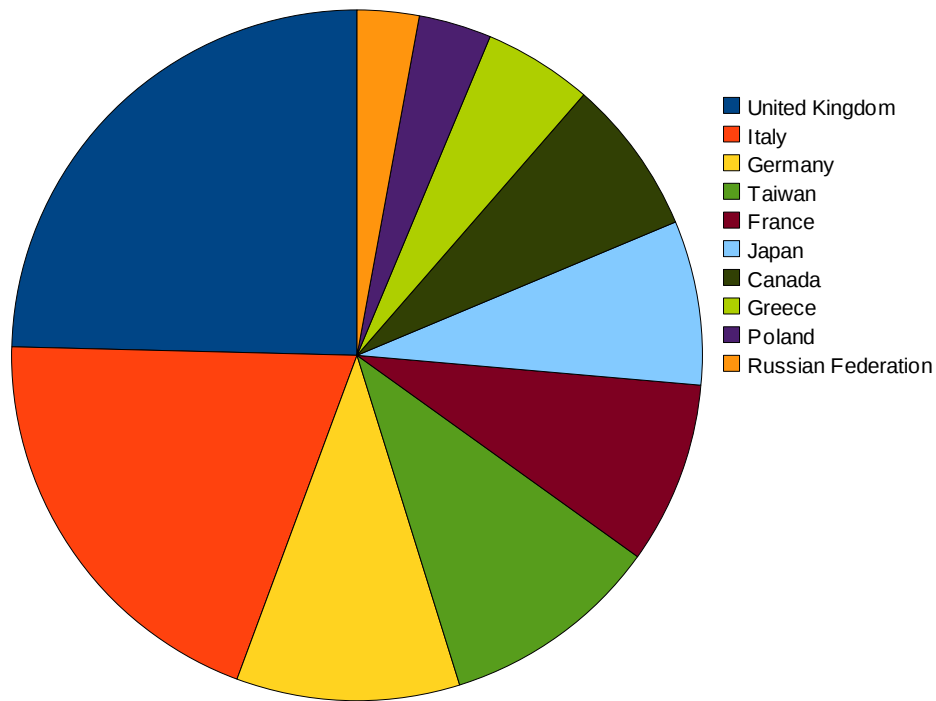


Scientific Linux

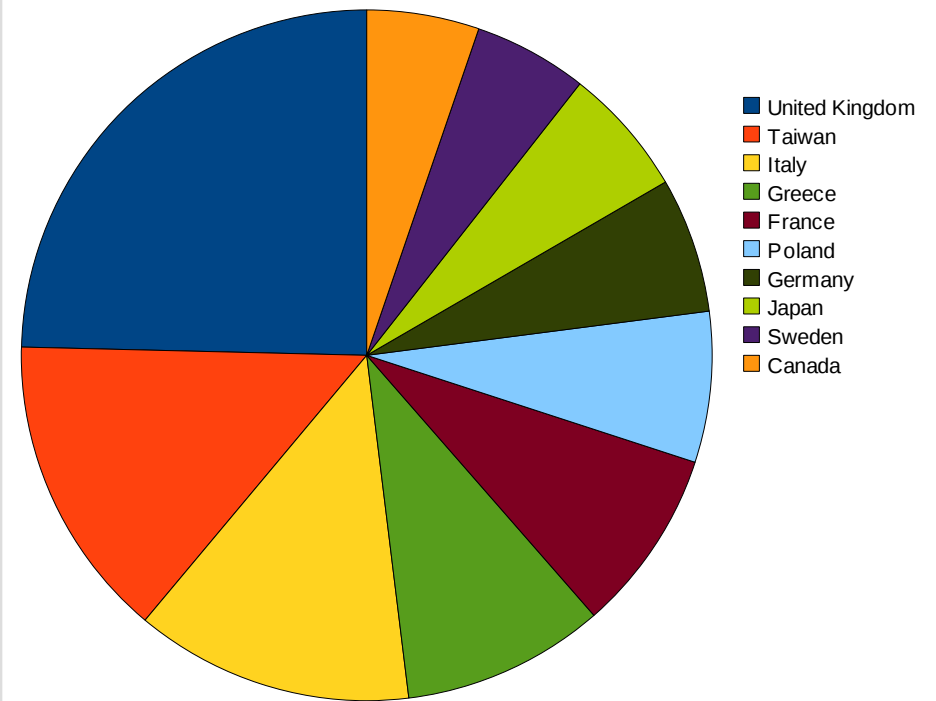
2004 – 2009 – 5 Year Anniversary



April 2006
Top Downloads of Files

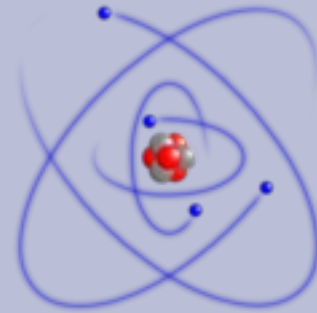


April 2006
Top Downloads by Megabytes

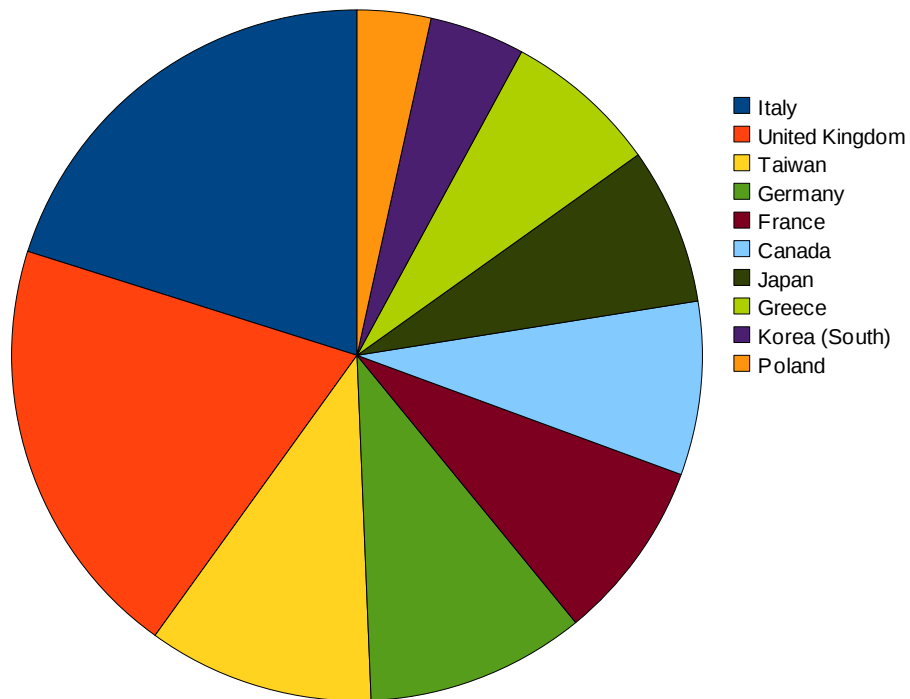


Scientific Linux

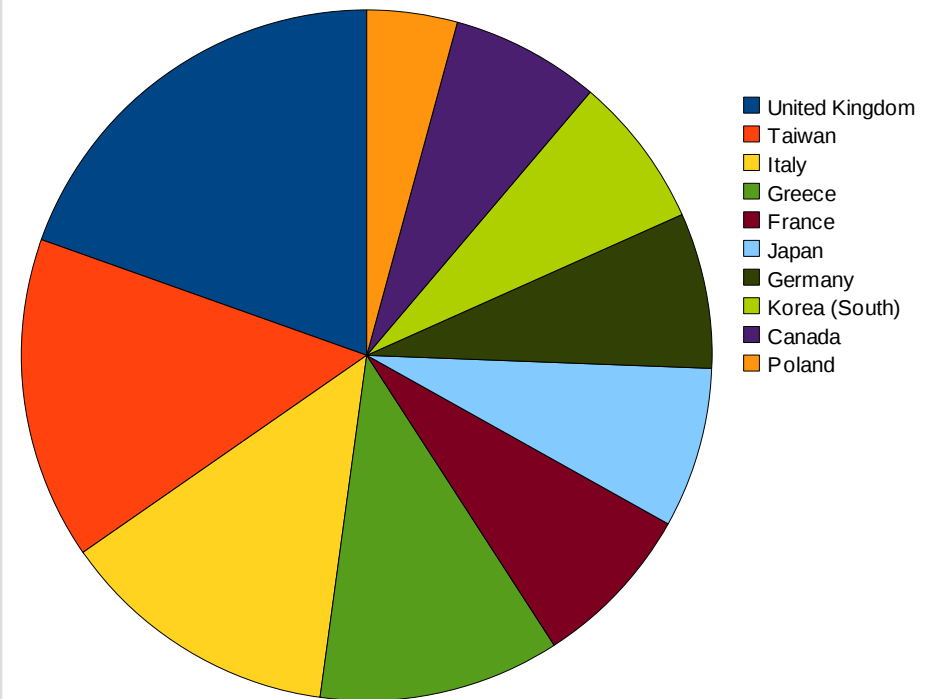
2004 – 2009 – 5 Year Anniversary



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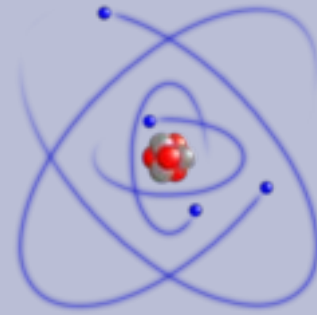


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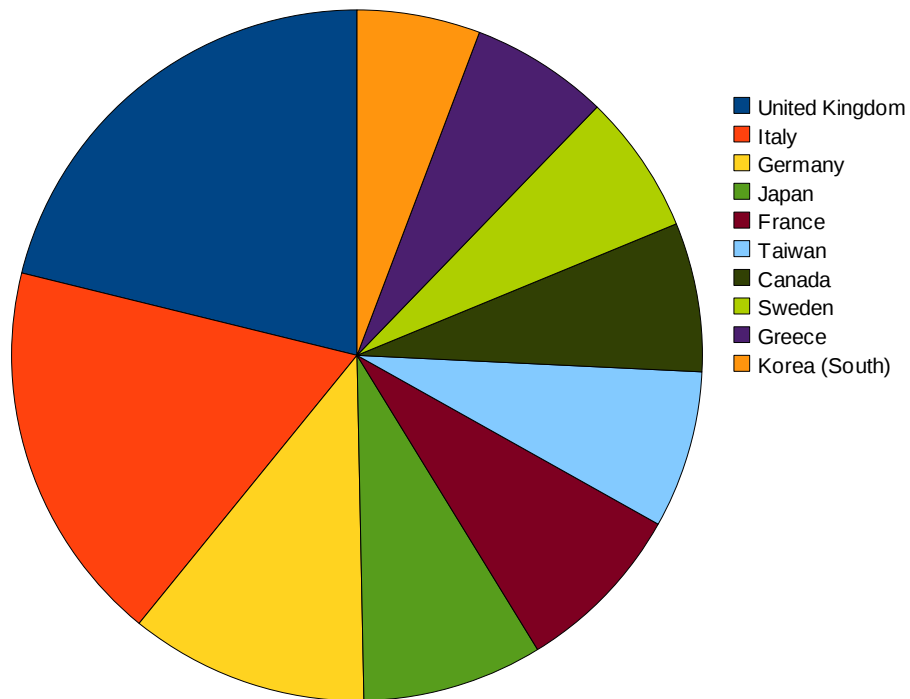


Scientific Linux

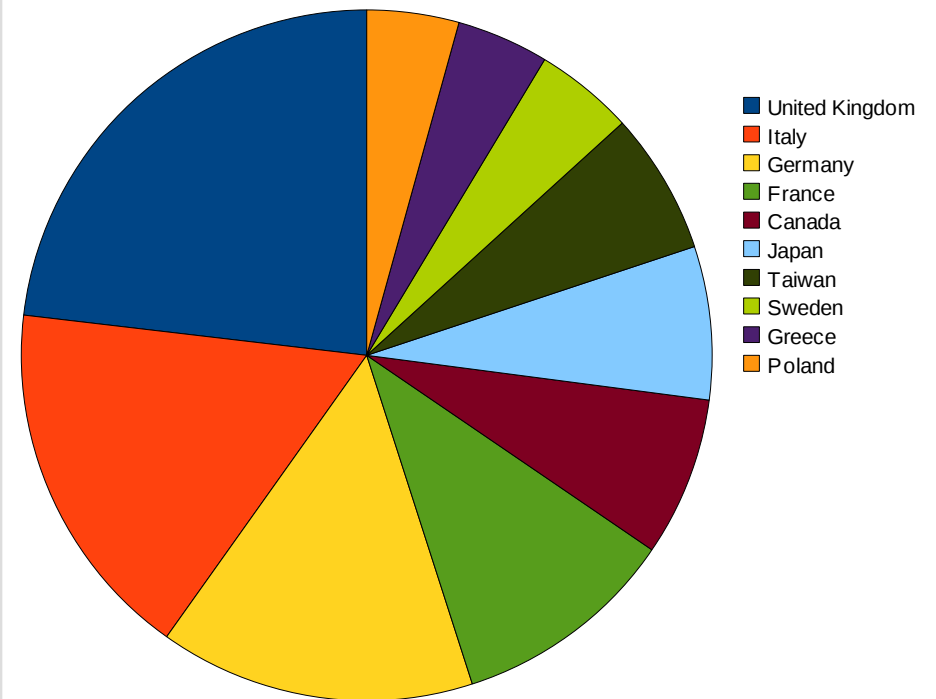
2004 – 2009 – 5 Year Anniversary



April 2007
Top Downloads of Files

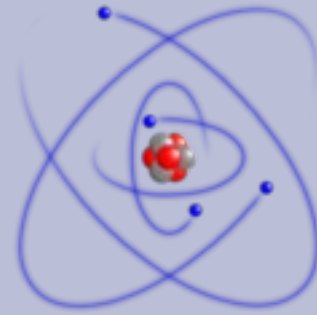


November 2007
Top Downloads of Files

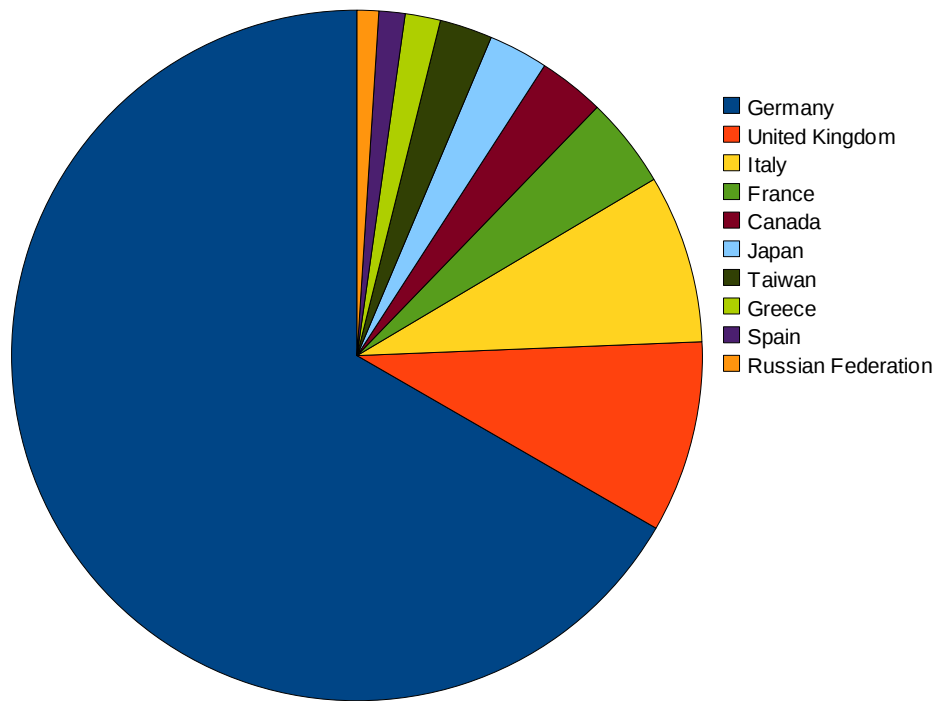


Scientific Linux

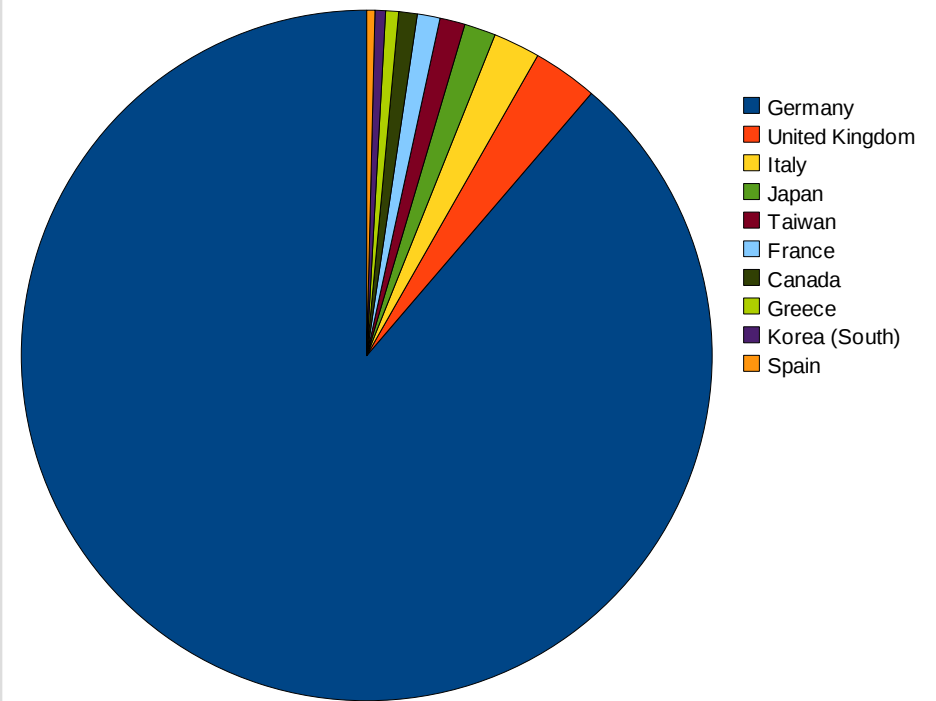
2004 – 2009 – 5 Year Anniversary



May 2008
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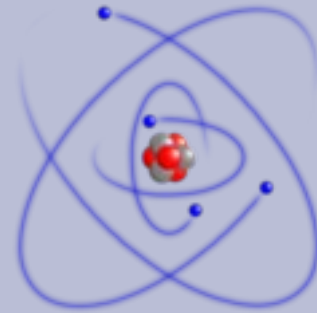


May 2008
Top Downloads by Megabytes

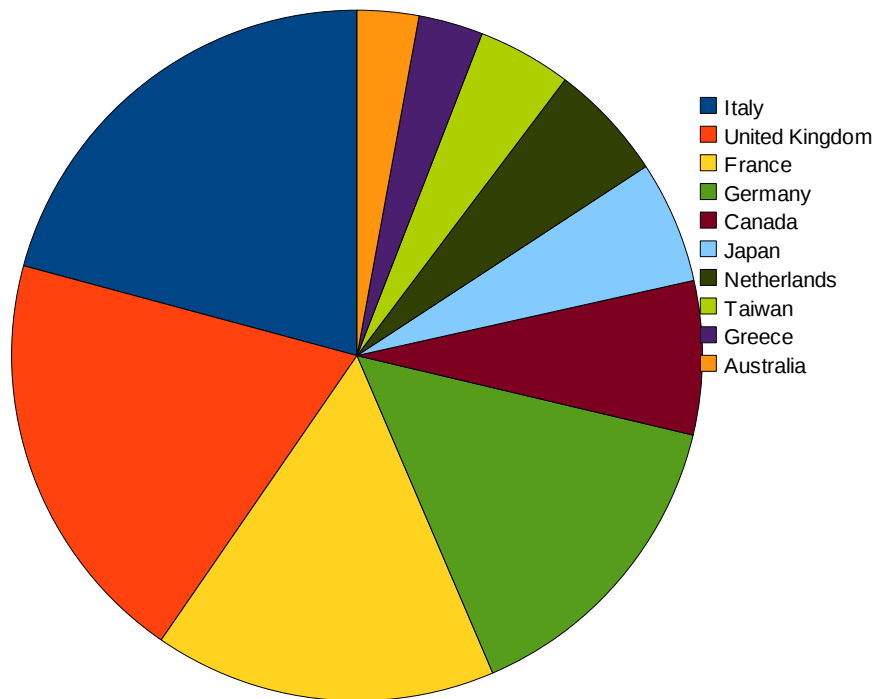


Scientific Linux

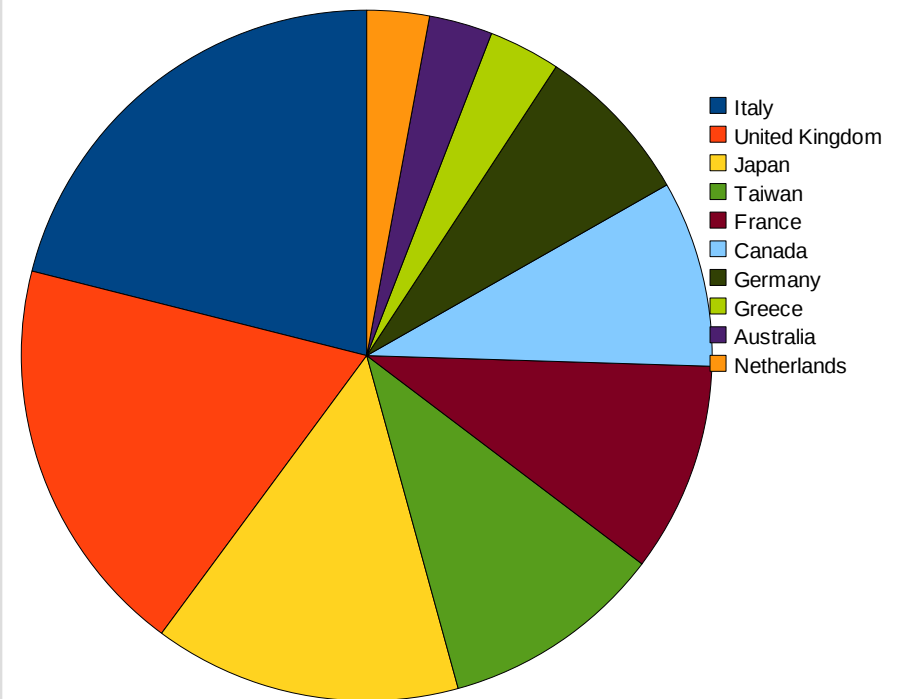
2004 – 2009 – 5 Year Anniversary



October 2008
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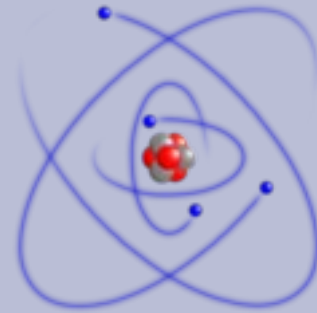


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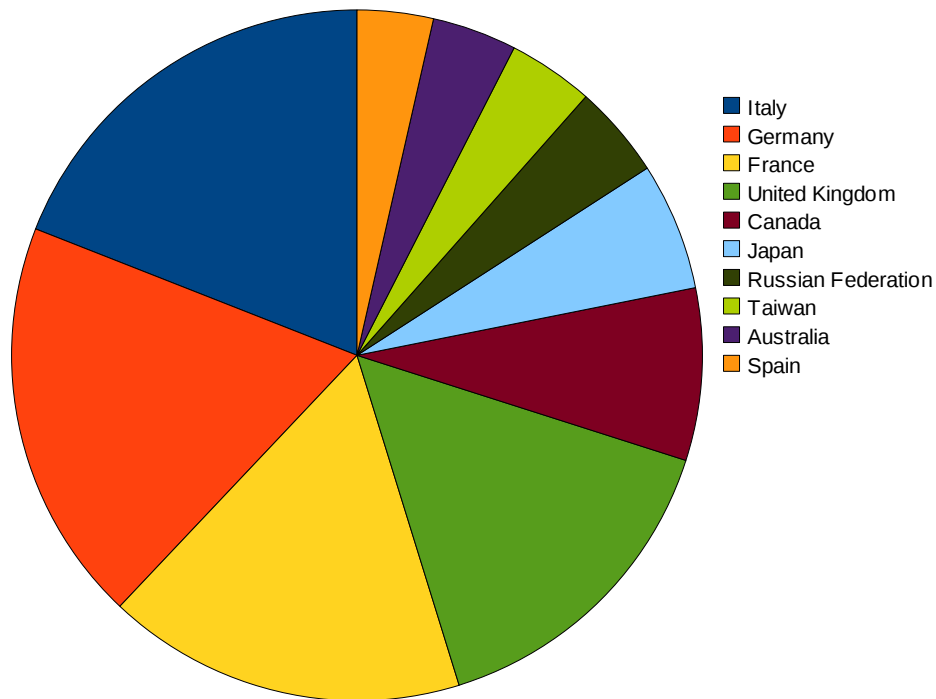


Scientific Linux

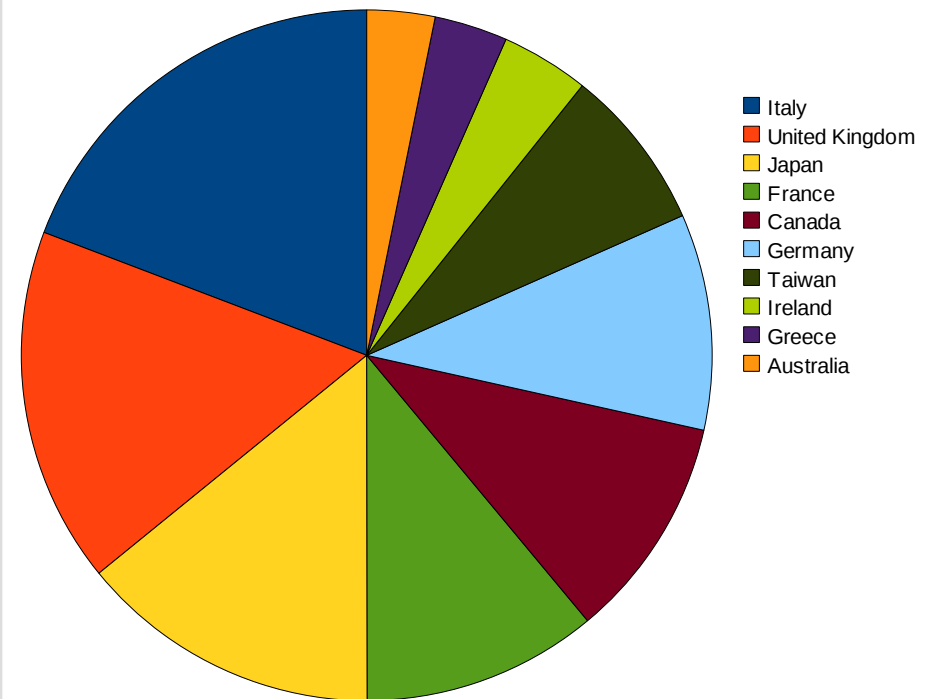
2004 – 2009 – 5 Year Anniversary



April 2009
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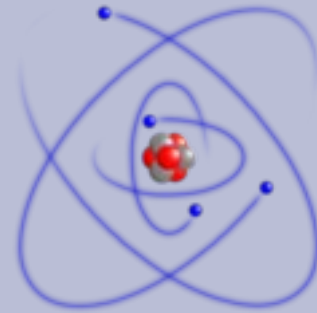


April 2009
Top Downloads by Megabytes



Scientific Linux

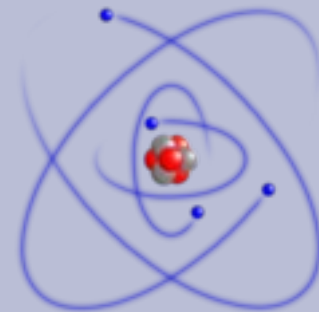
2004 – 2009 – 5 Year Anniversary



- Releases
 - I386 – 20 Releases
 - 301, 302, 303, 304, 305, 307, 308, 309
 - 40, 41, 42, 43, 44, 45, 46, 47
 - 50, 51, 52, 53
 - X86_64 – 19 Releases
 - 302, 303, 304, 305, 307, 308, 309
 - 40, 41, 42, 43, 44, 45, 46, 47
 - 50, 51, 52, 53
 - ia64 – 3 Releases
 - 302, 305
 - 41
 - TOTAL: 42 Releases

Scientific Linux

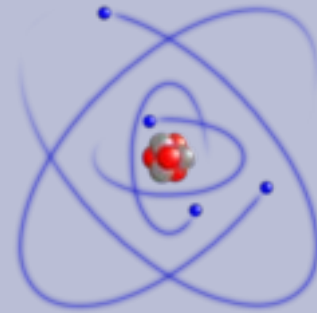
The Past Six Months



- S.L. 5.3 released – March 2009
 - For i386 and x86_64
 - Programs that were added
 - aufs
 - scipy, fftw, suitesparse
 - iwlwifi ucode (firmware) for Intel 3945, 4965, 5000
 - RedHat removed several packages, and change the arch of others
 - SL 5.3 packages were changed to match RedHat's changes
 - comps.xml was cleaned up to match RedHat's

Scientific Linux

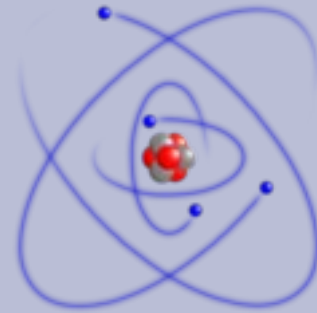
The Past Six Months



- S.L. Live 5.3 released – March 2009
 - Web page was moved to www.livecd.ethz.ch
 - For i386 and x86_64
 - CD, DVD, mini-CD
 - Changes can be stored persistently on a storage device like an USB key
 - can be installed on USB key, or local hard disk
 - LiveCD can be mounted over NFS (diskless client)

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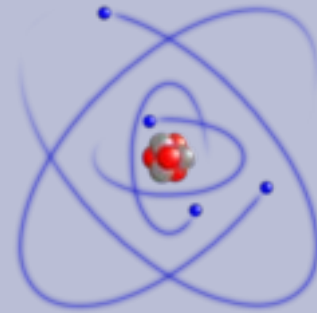
The Past Six Months



- Security updates continually released for all supported versions
- Fastbugs updates consistently released weekly for latest versions of SL4 and SL5.
- Testing used more for errata that might cause problems.

Scientific Linux

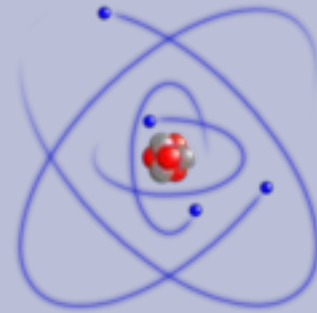
The Past Six Months



- Fixed poorly named rpm's
 - Poorly named rpms cannot be updated by yum
 - Cups is a good example
 - cups-1.1.22-0.rc1.9.20.2.2 (old)
 - cups-1.1.22-0.rc1.9.20.2.el4_6.6 (new)
 - We removed all offending packages from repositories
 - For SL4 we pushed out a yum that had the versionfix plugin.
 - After a couple of months, we pushed out a new yum that no longer had the plugin, but kept the plugin as a separate package in the repositories.

Scientific Linux

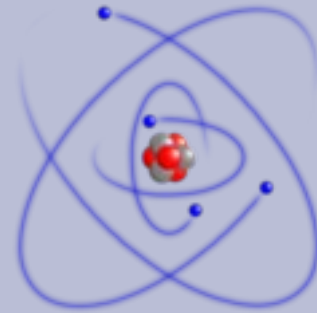
What we are currently working on



- Work on automating checking of packages
 - This is harder than it sounds because we do not have good access to RedHat's packages
 - The end goal is to be able to do the following automatically, instead of by hand
 - Download the packages from RedHat
 - Verify that we built the same packages from the source
 - Verify that our packages have the same names
 - Verify that our packages have the same files they do
 - Verify that our packages provide the same stuff
 - Verify that our packages require the same stuff

Scientific Linux

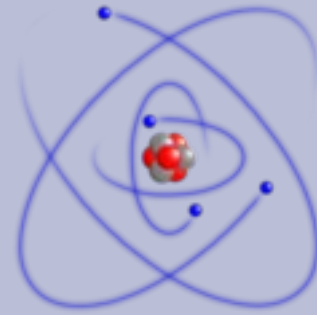
What we are currently working on



- kernel-module plugin for yum
 - Correct yum when yum picks a random kernel module to install
 - Cleanup your system if you have kernel modules for kernels you do not have
 - removes kernel modules when kernels get removed
 - Still have one problem when packages with kernel modules get updated, at the same time that kernels get updated, at the same time that kernels get removed.

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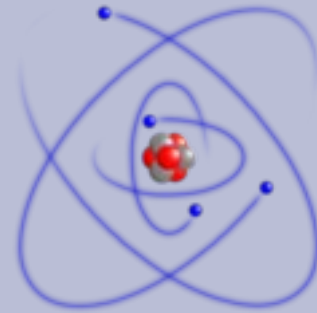
What we are currently working on



- Building SL 4.8
- Purchasing new servers for [ftp.scientificlinux.org](ftp://ftp.scientificlinux.org) and [rsync.scientificlinux.org](rsync://rsync.scientificlinux.org)
- Investigating SL6
- New SL Logo for SL6

Scientific Linux

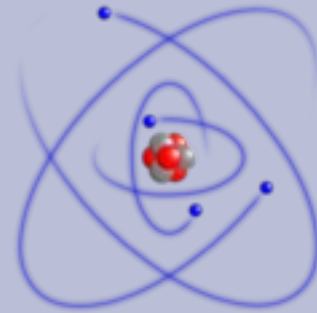
What we see in the future



- Continue to have security updates for SL 3.0.9
 - This will continue until October 2010
- Continue to have security updates for all releases of SL 4
- Continue to have fastbug updates for only the latest release of SL 4
- Continue to have security updates for all releases of SL 5
- Continue to have fastbug updates for only the latest release of SL 5

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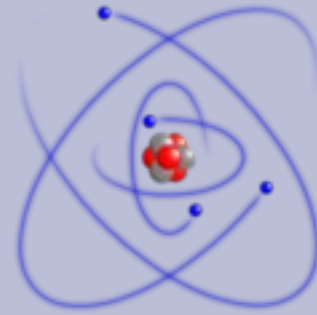
What we see in the future



- Releasing S.L. 4.8
 - Estimate - July 2009
- When RHEL 5 Update 4 comes out, releasing S.L. 5.4
 - Estimate - October 2009
- When RHEL 6 comes out, releasing S.L. 6.0
 - Estimate - January 2010

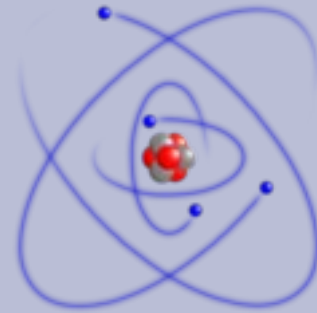
Scientific Linux

What we see in the future



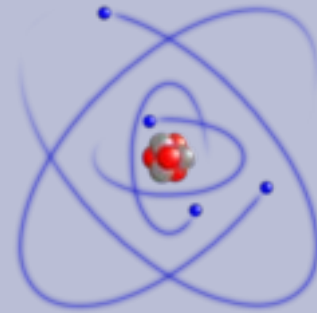
- Newer, faster, better distribution servers
 - redundancy for servers: <ftp1.scientificlinux.org>
- New logo for Scientific Linux
- New kernel-module plugin

Scientific Linux Plenary Discussion



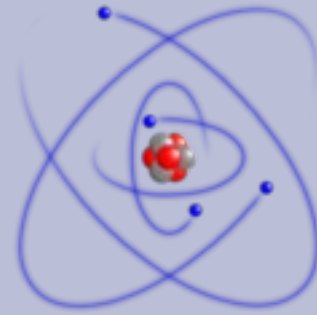
- This is our chance to get direction from you, the users of Scientific Linux
 - What is important
 - What should we change
 - Discuss time lines and road maps

Scientific Linux Plenary Discussion



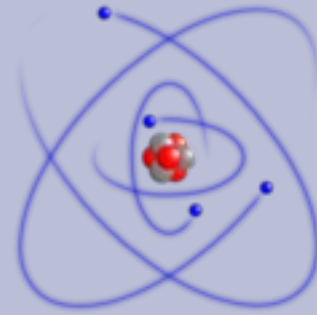
- Scientific Linux 4 timeline
 - Currently we say we support it until 10/10/10
 - RedHat's last RHEL 4 update will be Q4 2009
 - <https://www.redhat.com/security/updates/errata/>
 - Should we do the same to SL4 that we did to SL3
 - One last release SL 4.9 codename Legacy
 - On October 10, 2010 end support for all older SL4
 - Support SL 4.9 until Feb. 2012

Scientific Linux Plenary Discussion



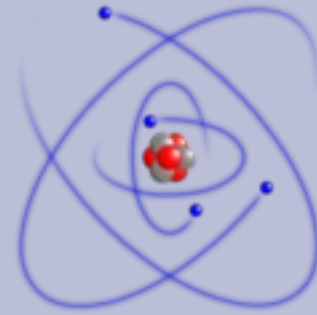
- Scientific Linux 6
 - People's feelings about working with CentOS?
 - Idea's about creating “sites”?

Scientific Linux Plenary Discussion



- Other Topics?
 -

References



- <https://www.scientificlinux.org/>
- <http://ftp.scientificlinux.org/linux/scientific/>
- <ftp://ftp.scientificlinux.org/linux/scientific/>
- <http://www.livecd.ethz.ch/>
- <https://www.redhat.com/security/updates/errata/>