I've found it interesting to look back to see what has happened in Second Life™ during the past year. In 2012 I did that and published: Looking Back at Second Life 2012. A much shorter version of that is: 2012 – The Short List.

In the sidebar I have an Archive selector. You can select any month to find articles within a specific month. I also try to make use of WordPress categories and tags. Each article has a section that shows published date, categories, and tags. Use category and tags links to find more articles on a specific subject.

This article is about 9,000 words long. If I have time I'll make the TL:DR version like I did last year. But, don't count on it.

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**Second Life in 2013**

**January**

(50 articles) – In early January Caleb Linden was working with **Multi-Threaded Region Crossing** improvements being tested in the Preview Grid (ADITI). By the 10th an RC made it out. Coincidental network problems had everyone thinking the rollout was a fail, it wasn't. By the end of the

month this was the update that made it to the main channel. By the end of the month we found out ejecting a player with this update in place would crash the region server.

A network link and its backup in the Phoenix co-location center failed about the middle of the month causing massive lag and preventing many from logging in.



Bandwidth Problem

Late in the month another problem **increased bandwidth use**. Those people with limited bandwidth accounts were hit hard. See: [Second Life News 2013-4 (3)](#).

Andrew Linden was working on the first round of **Interest List** improvements and expecting them to make it out of QA. They made it to the RC channels the 3rd week of January. While the changes added rez fails the area rez was faster.

This is the month that **SL wind changed**. It should be more consistent and change direction less often. The Lindens did NOT expect this to help sailing.

Support for the **Neck and Center attachment** points was rolled to the RC channel.

VoidPointer Linden was hoping to get **STAY_WITHIN_PARCEL** working for Pathfinding characters. Baker Linden was fixing a problem with rezzing large objects. Those fixes made it into SL QA in January.

**Sudden Massive Lag** had been a problem plaguing SL. Toysoldier Thor was reporting on the problem and agitating to get it fixed. The Lindens had hoped a January update had fixed it. As of mid-January it had sort of fixed but left and equally annoying and similar problem.

**Flatter-bots** were news.

**Deferred Render** was being added and had problems. At the time this was known as the Lighting & Shadows feature of the graphics settings. We now call it the Advanced Lighting Model (ALM). It is now required for several features of Second Life, like Materials.

This month we were asking Nyx Linden if they could tell us how many people are using ALM. In December will still be asking.

Monty Linden was changing how SL servers communicate with viewers. The **HTTP Library** was in the process of being upgraded. Monty had realized that a number of routers could not handle the load SL was placing on them. People were having problems connecting to SL or staying connected. In January this was a growing problem.

At the end of January **DNS problems** associated with SL became an issue. The Lab was having trouble tracking down the cause.

**Server Side Appearance** (SSA) or Baking was in the works. At the time the Firestorm team thought they would roll out a viewer in February. That didn't happen.

**Chat Hub User Interface** (CHUI) was in development with no ETA in sight. But, we were getting updates of the Project's Viewer.
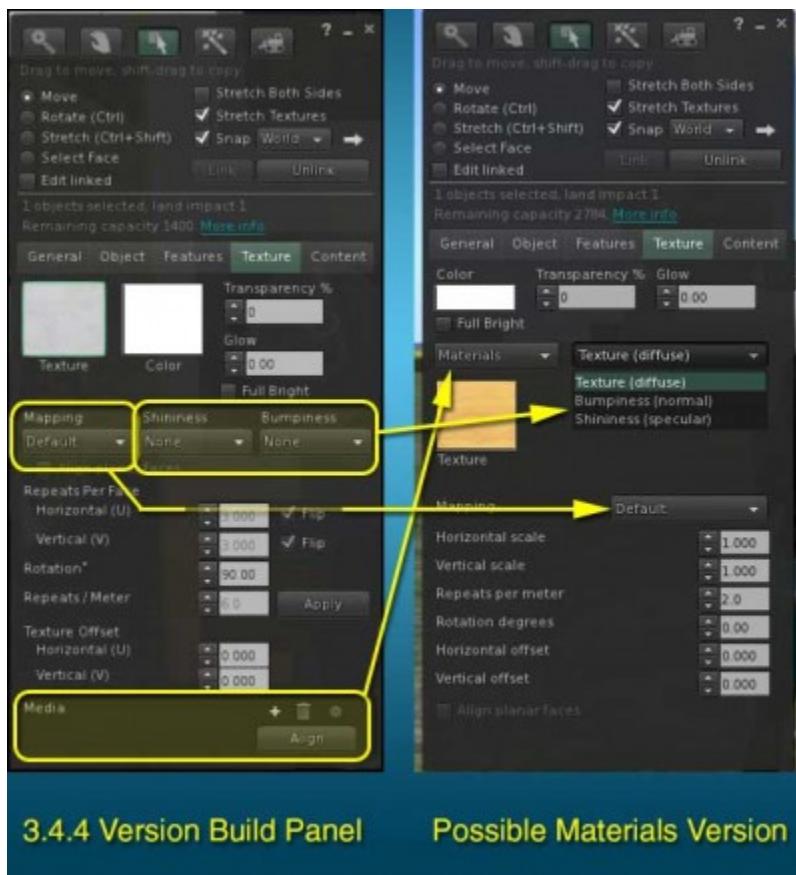


An Early Look at Materials

The Lindens released the **Materials System** code to third party developers. Then deemed it premature. A better release was planned for later. A beta version of a Materials Viewer was expected but did not arrive in January. Materials server side code was running on ADITI, the Preview grid. We found out using Materials would move items into the Land Impact accounting system.

An upgrade of the text display was updated. The system is based on **Free Type** a third party provider. The update caused problems and the Lab was in the process of fixing things.

**Viewer statistics reporting** was being upgraded.

Viewers were changing from 4 **graphics levels** to 7. A new Draw Weight for Avatars was added. STORM-68 (set default permissions for newly created items) was near to being released. I think we finally got that feature in December.

The **Havok physics** engine was updated.

In early January **Microsoft's Skydrive** and mesh upload were incompatible causing crash on upload. Some memory use problem was causing viewer's to crash. Later in January this became a more pervasive problem crashing viewers not uploading. I suspect more people were starting to use Skydrive. (SL Skyrive Problem - fix) This turned out to be a tenacious problem extending form mid 2012 to mid 2013.

A change started causing old **landmarks** to deliver people below ground. Redoing the LM fixed the problem.

Jeans without Alpha Layer

The **Mesh Deformer** remained stalled. But, during this month the JIRA [STORM-1716](#) saw a new round uninformed discussion and annoyed sarcasm by Karl.

**ADITI inventory problem**s continued as we waited for word of more hard disks being added or some other fix to the system.

The Content Creation Improvement Informal User Group **(CCIIUG) informally closed**. This is the group Geenz Spad was running related to Materials Development. Informal or not, AFAIK the group is gone.

This is the month Linden Lab announced acquiring [Blocksworld](#). (An iPad App)

Near the end of the month I published a **stats summary** for 2012: [Second Life 2012 Statistics](#).

Linden Lab releases **[Dio](#)**.

[youtube -8WkyBBwYTI]

We see a demo of LEAP Motion Controller and Second Life.

**February**

(*40 Articles*) – In February **Multi-Threaded Region Crossing** rolls to the main channel. There is discussion about whether things are better or worse. Avatar crossing seems better. Vehicle crossing seems worse.

**Excessive bandwidth** use remains a problem. It causes many bots to fail.

**Chat Hub User Interface** (CHUI) was still in internal development for most of the month. But, we did see the new interface make it into the beta version of the SL Viewer by the end of the month.

[youtube t8IUxCMyElU]

The **Materials System** remained in pre-Beta stage. This month we learn the ability to script Materials changes would not being included in the initial feature rollout. Another update made it to an RC channel. By the end of the month the RC version had rolled to the main channel. But, there was still no project viewer available.

**Flufee Missions end**. The *Arrival Mission* is, I think, the last in the 'pre-problem' series.

[youtube 3P7xykJkgSI]

And the farewell video…

[youtube 0sF4QSgU9FQ]

We still see Flufee now and then. But the *Flufee Missions* have been replaced by the *World Builders* episodes.

**Server Side Appearance** (Baking) gets project viewer code released. Third party developers began integrating SSA. The Lab was doing load testing mid February. By the end of February there was a public pile-on test in the preview grid.

It was this month that we also learned SSA would break third party viewer's avatar height adjustment. Later next Linden will provide a somewhat fix for the problem. But the loss will remain a missed feature.

LATEST: 10.17 [UPDATE]

CHANGES IN VERSION 10.17:
THE CPU NO LONGER OVERHEATS WHEN YOU HOLD DOWN SPACEBAR.

COMMENTS:

LONGTIMEUSER4 WRITES:

THIS UPDATE BROKE MY WORKFLOW! MY CONTROL KEY IS HARD TO REACH, SO I HOLD SPACEBAR INSTEAD, AND I CONFIGURED EMACS TO INTERPRET A RAPID TEMPERATURE RISE AS 'CONTROL'.

ADMIN WRITES:
THAT'S HORRIFYING.

LONGTIMEUSER4 WRITES:
LOOK, MY SETUP WORKS FOR ME. JUST ADD AN OPTION TO REENABLE SPACEBAR HEATING.

EVERY CHANGE BREAKS SOMEONE'S WORKFLOW.

This seems so like SL -

Ima Mechanique is working on the **scripting highlighting**. The project allows the viewer to update its syntax files from the server. This project does not arrive on server and viewer sides until late December.

The **visibility of diagonal regions** continues to be an on and off again problem. Late in the month the problem seemed to get worse.

I think this is the first month I wrote about: STORM-68 - *As a Builder, I want that ability to **set default permissions on creation of objects**, clothing, scripts, notecards, etc*. We will see this feature making it into an RC Viewer in December,

**World Maps** has problems on and off for months. This month regions running in the Magnum RC channel stopped appearing in World Maps. It got fixed.

Problems with Havok's update release start to show up. **Terrain behaves differently**. Vehicles hang-up easily. Other objects penetrate the ground.

Designing Worlds does a show on **SL Griefing.** In December 2012 I had written: From #SL Griefing to Extortion. I provided some tips for those being griefed in: Designing Worlds on Griefing.

**Network Packet Size** begin being looked at in February with the intention of being updated.

Mid February the **SL Market Place** got some updates. These were mostly to do with email. See: [Second Life Commerce Update 2013](#).

**Interest List** problems started to show up with doors. Doors closing on a timer would update the physics but not the visual state. It would look like a door was open, but a person could not walk through it.

Also, link sets were only showing their root prim until you got very close.

Interest List changes apparently broke Area Search in some third party viewers. Also, some people were blaming the Interest List changes for AO's failing. Items that used scripts to change their particle emission seemed to be failing. And some small objects emitting light stopped emitting light. Also, the viewer would think scripts were too far away to be edited in the middle of your editing them.

In February there was still some hope that **2012's JIRA Change** might be reconsidered. This was the change where the majority of JIRA users lost access to all but the JIRA items they authored. See: [JIRA Change Follow Up](#).

**Sudden Massive Lag** continues to be a problem. See: [Second Life BUG-355 – Sudden Lag](#). This was a big problem for those having large events.

A problem turned up were the region you are leaving appeared in front of you in the region you are entering. That problem seemed to be getting worse this month.

There is also a problem where people were disconnected when crossing from region to region. The problem may have been related to the number of scripts you were wearing.

In February I wrote an article about using **layered materials on mesh.** See: [Second Life Mesh – Double Materials](#).

This is also the month when we started seeing changes to the **warning notice of a region restart**. These changes were being made because it was too easy to miss the notice. That seems to still be a problem.

We also heard that we can change the sound of these alerts: *UISndAlert.* See: [Debug Settings](#).

In the Content and Mesh Upload User Group **Nyx Linden explained how Flexie Prims work** and whether something similar would be possible for mesh objects. See: [Second Life News 2013-9](#).

The **Preview Grid** (ADITI) had been having problems for weeks. In the last week of February we got word that repairs a been made. See: [New ADITI Fix Out](#). This apparently was not an absolute fix. Some people still have problems with inventory in the Preview Grid.

Kelly Linden described the *Runtime Collision Control System* (*RCCS*). See: [Second Life News 2013-9 #2](#).

In February we were still trying to get some information about the **number of people using Advanced Lighting Model,** also known as deferred rendering.

**March**

*(41 Articles)* - At the beginning of March we see the first of the **World Makers videos** from Drax Dupres, the maker of the Flufee Missions videos. We pretty consistently see a new video in this series each month.

[youtube Gbu2HN_aY7w]

Baker Linden's **Large Object Rez project** makes it to an RC channel. We learned this change may affect small objects and large objects. See: Second Life News 2013-10. The package eventually rolls to the main channel in week 11, mid-March.

It was this month Simon Linden spoke about **an experiment** the Lab was conducting to change how the system decides whether to render an avatar or at an avatar imposter. See: Second Life News 2013-10. I'm pretty sure we have never heard any more about this experiment.

This month we learned that April 15th would be the cutoff date for **Magic Boxes**.

Over in the **Preview Grid** (ADITI) I and others are still having **problems** with inventory. When changing the password to force an inventory update things can go wrong. See: Aditi Inventory & Login Problems.

Nyx Linden explained how the problems in the **Preview Grid affected the SSA** pile-on test. See: Second Life News 2013-11.

**Region crossing problems** popped up early in the month. Monty Linden in the Server Beta Group explained some of how region crossings work. See: Second Life Region Crossing Problems. Vehicle region crossing problems were explained about mid-March by Andrew Linden. See: Second Life Vehicle Crossings.

March is a month where we started hearing about limited resources at the Lab hindering update releases. Eventually the backup of software waiting to release will result in a new way of releasing viewers: **Viewer Release Pipeline**.

**CHUI** remains in Viewer Beta.

In March we saw an update to **Vivox,** they gave us better voice quality.

In the first week of March **Group Bans** comes up as a feature request. In mid-March this became an actual project we now call Group Ban List. Planning the feature started in mid-March and it seems Baker Linden was doing most of the work.

The **HTTP package** moves from QA to testing on the Preview Grid. Concerns about problems with the various vending machines that rely on external servers comes up.

The **Interest List** seemed to continue to add on problems. This month we get reports of avatars rendering oddly, like avatars that are 4000 m away being rendered. Pathfinding characters behave oddly visibility-wise. Also, some methods of clearing the visibility cash stopped working. There are also

problems rendering objects that are behind you. We realize there was a problem when we would turn around and objects previously behind us would not render.

A second round of Interest List changes moves from QA to testing on a Preview Grid in mid-March.

The loss of the **Avatar Height Adjustment**, or the ability to change the avatar's Z-axis position, becomes more of an issue in the month of March. Third party viewer developers are trying to find a replacement feature. For details see: Second Life's SUN-38 Dilemma.

This month changes to the **Grey Goo Fence** (GGF) were being considered. The fence is a limit is that prevents scripts from rez'ing new objects until the region fills up. Because of griefing attacks using sound, the lindens are considering adding offense limit for sounds.

This month we got word that **The Google Reader** would be going away in July 2013. This impacts lots of people in Second Life™.

In mid-March Linden Lab quietly offers region **pricing discounts to educational and nonprofit organizations**.

Midmonth the package with **Multi-Threaded Rez** rolled to the main channel. Several Interest List improvements were put in the testing on the Preview Grid. Monty Linden gives us information on what's coming in the HTTP planned updates. See: Second Life News 2013-11 #3.

We also got word that a new **scriptless AO** is coming. When we learned what they were talking about it turned out to be a set of scripting commands that allows one to change the default animations. Once those are set, no script is needed to keep them working. This turns out to be a Kelly Linden project.

The new AO project is officially announced about March 21. See: Second Life Scripting Changes. The new script changes make into an RC channel in week 13.

Along with the AO project we learned that we are getting Ribbon Particles, Particle Blending options, and Particle Glow options. While the server side of these features was being rolled out we still had to wait some time for these features to get added to the viewer. For more information on the feature see: Second Life Scripting Changes.

**Avastar** 1 RC 1 is released. This is an add-on for Blender specifically for working in Second Life.

[youtube AOnPmLyQGBU]

SL10B is announced. See: SL10B Announced.

**April**

*(77 Articles)* – **CHUI** is still having problems at this point. The Lindens were thinking one more Beta Viewer version would be needed. In week 14 the CHUI made it to the main viewer.

We got word in April that Rod Humble was talking to the **Oculus Rift** people. In December we got word that the Oculus Viewer was feature complete and that we might see a RC version of the viewer in January 2014.

As the month progresses it becomes more certain that the Lab will be implementing an interface for the Oculus Rift. See: Oculus Rift in Second Life. On April 24th Hamlet Au in New World Notes confirmed with the Lab that and Oculus Rift Interface is being built. See: More Second Life Oculus Rift.

SSA or **Server-Side Appearance** got a name change in April. It went from Baking to Appearance.

We got word this month that the Lab would attempt to do something to fix the Z-axis avatar adjustment, which it seems SSA is breaking. In the last half of April Nyx Linden, on personal time, adds an avatar-offset to the avatar shape settings. While the course nature of the settings prevents joyful acceptance of the feature, the feature solves the more egregious avatar-height problems. See: Second Life Avatar Offset.

SSA moved into a beta viewer in week 16. Nyx Linden explained the ETA for SSA would be highly dependent on how quickly third party viewer develops could implement the feature.

SSA was released in the Firestorm Viewer in week 17. Also, Firestorm's removal of the avatar-height control from their viewer brings the problem to the attention of many more people.

SSA was executed to resolve Bake Fail. But there are still some problems that are causing bake fail. See Current Outfit Folder (COF): COF Corruption

CHOP-839

Fix it!
...or the server hamster gets it

Too Cute

Another part of the **Interest List** project rolls out to the main channel, week 14.This package was to fix problems with some objects not rendering.

Early in April we saw more prims that failed to render unless clicked on. It turned out this problem is a viewer side issue with the Interest List.

In week 15 we got word that **Interest List II** was starting to wind its way through QA & RC.

The new **AO functions** roll out to RC channels. A Beta Viewer became available in week 14. For information on the new functions see: New AO Stuff 2013-14. In week 15 the server side package with these functions was removed while fixes were made.

More drama breaks out in the **Mesh Deformer** JIRA thread. See: Mesh Deformer Update 2013-14.

This was also the month that Karl Stiefvates addressed the problem of the Mesh Deformer having a 2 to 4 minute delay. It didn't. See: Mesh Deformer Update 2013-16.

**Direct Delivery** was out and **Magic Boxes** were starting to be phased out.

In week 14 **region crossings** for vehicles had improved. New roll outs were helping.

As April started the **Materials Project** still did not have a project viewer available to users. But, on the 8<sup>th</sup> a project viewer (3.5.1) for Materials was released. It was buggy and came with a warning regarding its use. See: Materials Project Viewer Out – Breaking. As the months progressed the project viewer was updated and more problems were fixed. But, we were warned by Oz Linden to stick with the project viewers found on the Alternate Viewers page.

**OpenSim** begin adding Materials support.

[youtube 1X7OBGSxaJM]

This month it was more obvious that the **speed of viewer update** releases was holding up other aspects of Second Life. This is another push on the Lab toward developing a better release process for viewers.

**Auto-update** for the viewer debuted. In hindsight we will realize this was an incremental step in a new viewer rollout process.

This month Linden lab released **Troobles Pigs**.



April has the event **Fantasy Fair**.

[youtube zvclRK_zJj0]

The **HTTP package** rolled out to the main channel in week 16. Numerous problems that probably have nothing to do with HTTP package are blamed on the rollout. For this to the problem see: Second Life News 2013-16 #2.

In April I wrote tutorial about Second Life Avatar Shape Export. See: Second Life Shape Export. There's a pretty much hidden gotcha in shape export that probably bites a lot of people.
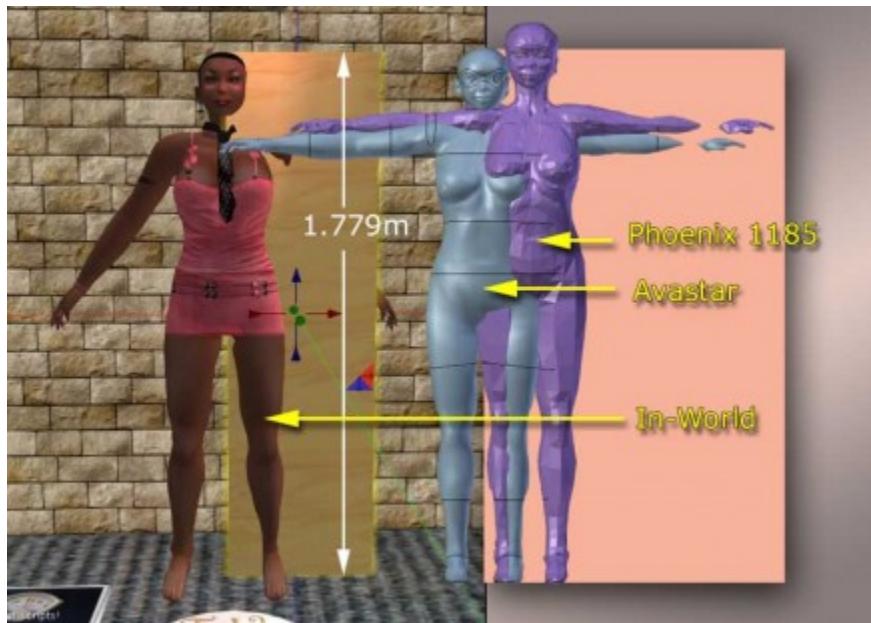


Comparing In-world with Avastar and OBJ Export

In April a new KirstenLee Viewer S19 (404) Blackbird was released. Drama storm erupted around it.

**May**

*(71 Articles) -* The new **Viewer Rollout Process** is officially announced in the beginning of May. See: Second Life Viewer Release Changing. Later in the month Oz Linden explained more about the process. See: Second Life Viewer Pipeline.

**Automatic Rollbacks** were something I only found out about in week 18. This is something that happens when a region is repeatedly crashing. See: Second Life News 2013-18 #2.

Content & Mesh Meeting 2013-19

In week 19 we heard an **Experience Tools** Preparation Package was being rolled to an RC channel. During the month of May we would see the Experience Tools role in and out of the RC channels.

The new **AO functions** were included in the Experience Tools package. Things were little confusing but the AO functions did make it to the main channel in week 19.

In the first week of May we saw controversial **TOS change** rollout. This was the change about the sell and purchasing of **Linden dollars**. This complicated things for a lot of overseas users of Second Life. The change is explained in: The New ToS Explained.

[youtube NtY3qU3IueM]

For a time there is question of whether 'unauthorized' was the same as 'not permitted.' During May the lab started sending out emails to Linden Dollar Exchange owners that made it clear 'unauthorized' and 'not permitted' were the same thing. That signaled the end of any exchanges other than Linden Lab's.

By the 10th May Linden Lab was sending out **Cease-and-Desist letters**. See: ToS L$ Change Update. This remained a hot topic throughout the rest of May. Linden Lab trying to clarify the situation with an information release. See: Lab Makes L$ Exchange Announcement. Plus they were obviously trying to mitigate problems overseas users were having exchanging Linden Dollars

**Meeroos** were having problems. The problem seemed related to the **Interest List** changes. Andrew Linden was working to figure out what the problem was.

With the **Mesh Deformer** on hold lots of clothes designers were looking for better ways to make close that fit the avatar. This made **Collision Bone Weighting** a popular tool. For tutorial see: Second Life Weighting Collision Bones.

**Landing Point Orientation** has to do with which way your avatar faces after a teleport. Landowners are supposed to be able to set which direction an arriving avatar faces. That feature was broken in SL for some time. In week 19 Maestro Linden was telling is the feature was being fixed in an upcoming release.

In week 19 Baker Linden worked on **fixing Avatar Display Names**. The fix has do with leading spaces and the types of characters that can be entered as a display name.

During the same time period Voidpointer Linden was working on putting parcel restrictions on **pathfinding characters**. The idea was to allow parcel owners the ability to decide whether they want pathfinding characters on their land or not. The intelligence to respect parcel boundaries was being added to pathfinding characters.
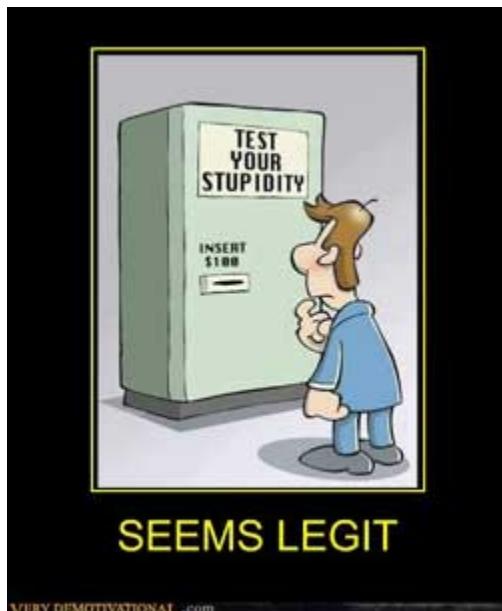


Image found by:

**Goon Squad Viewer**… See: Goon Squad Viewer.

About May 14th we learned that **JSON** was coming to Second Life. For an explanation of what that is and what it means see: JSON Comes to Second Life.

Drama around the KirstenLee Viewer S19 heated up with the release of version 407. See: KirstenLee Viewer S19 (407) Released and check out the comments.

About May 17 we got word Jo Yardley, the builder of 1920's Berlin in SL, that she had heard from Rod Humble, Linden Lab's CEO, that the Lab is actively working on building an interface for the **Oculus Rift**. See: Oculus Rift Update 2013-20.

There's an interesting video about developing Oculus Rift game interfaces. See: Oculus Rift 2013-21.

In week 21 I wrote an article or I wrote how the new RC viewers in the **viewer development pipeline** would be named. I got a wrong. But, new viewers were starting to roll through the new pipeline.

The Z-axis or avatar-height setting that SSA broke was replaced in SL Viewers by an apparent setting named Hover. I wrote about the limits of that setting in: Second Life Hover. I also provided a short tutorial on how to work around those limits.
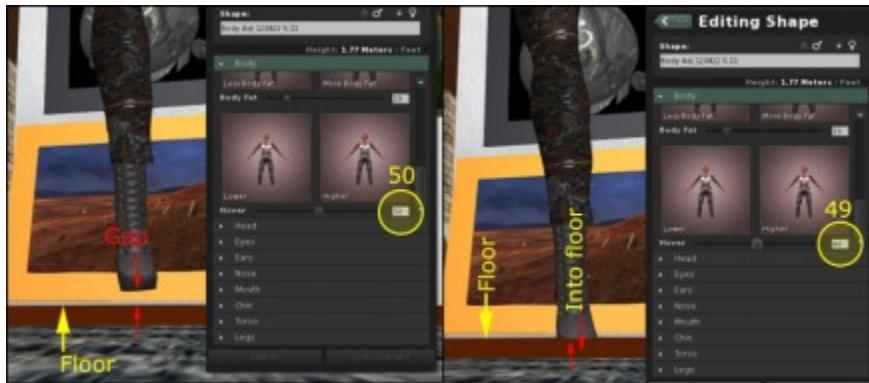


New Appearance Setting: HOVER

**Griefing** had reached the point that a number of people showed up at the Server Beta User Group to complain. For a clear explanation of what the Lindens in attendance can do about griefing see: More Griefing.

**Materials** made it to Beta Release the last day of May. See the official announcement: Second Life Materials Goes Beta.

**June**

*(60 Articles)* – The month starts out with Henri Beauchamp blasting KistenLee for plagiarism. See: S19 Viewer Controversy.

Jo Yardley, 1920's Berling in SL, publishes an **interview** with Rod Hummble, Linden Lab's CEO. See: 5 Minutes Isn't Enough.

**Disconnection** problems were fixed in week 23. Large numbers of people were suddenly being disconnected. See: BUG-2564. The fix ran on all three RC channels in week 23.

SL10B Bear - Free Avatar

The Lab released a **commemorative avatar** to celebrate SL10B (10th Birthday of SL).

Second Life and independently Penny Patton released articles on the Best Building Practices for Second Life. If you build in SL and missed them check out: Best Building Practices in Second Life.

Kelly Linden let us know he is working on two new scripting functions for SL: **llReturnObjectByOwner** and llReturnObjectsByID. For a few more details see: New LSL Functions Coming. We got more details in week 24. See: Second Life News 2013-24 #3. The function **llReturnObjectsByID** was removed from the ADITI grid for a week (24-25) while fixes were made. There were problems with return of parcel owner items. Thesse changes made it to the main channel in week 26.

Corrupted Textures

**SSA** was having some problems in week 23. People moving in and out of SSA enabled and disabled regions ran into problems, see the image. For more details see: [Second Life News 2013-23 #2](#).

I tried to put these problems in context with what the Lab is up against. See: [SSA Context](#). This should also help one to understand why it is important to run updated viewers and operating systems.

Problems with SSA and Avatar Hover (Z-axis adjustment) remain. Nyx tells us they won't have time to do anything with Z-axis until after SSA rolls out. That is held back by COF corruption causing bake fail.

The last week of June we got an estimated release date for SSA: week of July 7-13.

The **Mesh Deformer** sinks farther into a confused state. I try to clear up some of the confusion: [Mesh Deformer 2013-23](#).

Still no ETA for **Materials** was being given at this point. But, another RC version of the viewer was released: 3.6.0 (277049). On June 19 the Lab officially releases the Materials System. See: [Materials Released](#). New wiki pages were appearing for Materials. See: [Materials Information](#).

This month new pages appeared in the wiki for **JSON** and how it operates with SL. See: [Second Life JSON](#).

The **HTTP** updates caused several problems. Large mass disconnections of users started happening in May. Also, scripts that depend on HTTP connections to outside servers were losing their connections. Updates made in week 24 alleviated some of the problem but were not a complete fix.

In week 26 the Lab announced the roll out of Sunshine, which includes HTTP.

[youtube jwglL3VXI80]

**Texture lag** has started to come up in May as more of an issue. The viewer is basically designed to use 512mb of video ram. There is some call to allow the viewer to use more video ram.

Baker Linden's work on **Display Names** was moved to QA in week 24. One of the reasons for making the fix was to get Mute Lists working as intended. With this fix moved into QA Baker moved back on to **Group Ban Lists**.

**Posing avatars** for pictures is tricky. Strawberry Singh provided a tutorial on how to position avatars even in no rez regions. See: Moving Your Avatar.

Viewer projects are built in code repositories. The Lab maintains a number of these. One that was discovered by users this June is an **Experience Tools Viewer** repository. This didn't tell us much about the tools, but it did confirm the project as alive and advancing.

The **Viewer development pipeline** started producing obvious results this month. The Vivox upgrades that were in development waiting on a beta viewer slot were placed into a parallel RC viewer.

**Vivox** was in an RC viewer. We also got word the new viewer pipeline will start installing RC Viewers in the first part of July.

For some time there were problems with **viewer snapshots**. Those problems were being fixed this month.

**Particle selection** was enabled in one of the Maintenance RC Viewers this month.

**Oculus Rift** was seen hands on by Jo Yardly about June 18 and she posted: Oculus Rift and Second Life.

Linden Lab released some interesting **statistics** in week 25. See: Stats 2013-25. Lots of bloggers pickup on the numbers and play with them. We learned later in June that the Lab was getting a new statistics reporting system.

Another Rod Humble interview makes it out. See: Rod Humble Interview 2013-25.

Chip Midnight Materials Example (enlarge)

Chip Midnight writes about using Materials over on SLUniverse. It is worth checking out. See: Second Life News 2013-26.

The Next Ten in Second Life is an article I wrote in June to get some perspective on where SL might be in 10 years.

CtrlAltStudio Viewer is released in week 26. This is a Third Party Viewer based on Firestorm that has Oculus Rift support. The interface remains pretty much the standard interface without adaptations for the Rift.

Sidden Munro puts out a video tutorial on work flow for standard sizing of clothes. See: Second Life Quick Standard Size Modeling.

**July**

*(48 Articles)* – One of the first things that happen in July is the Firestorm Viewer had a bug that was overloading the Linden's stats server. The **Firestorm** team quickly blocked the 4.4.1 viewer and rushed out version 4.4.2. See: Firestorm 4.4.2 Emergency Rollout.

I started off the month with a review of the state of **viewer development**. See: Viewer Updates 2013-27. By week 30 the pipeline was mostly operational. For more information on how it works see: New Second Life Viewer Pipeline.

**SSA** was announced as intended to roll out in week 28. SSA rolled to an RC channel in week 28. My experience with was described in: SSA Follow Up 2013-28. SSA moved from the smaller Le Tigre RC to the larger Magnum RC in week 29. It also remain on RC for week 30.

We got more information on how SSA works from Maestro and Nyx Linden. See: Second Life News 2013-29.

Another Rod **Humble interview** appeared this month. See: Another Rod Interview 2013-27.

**Oculus Rift** announced releasing the 1080p Rift SDK. See: Oculus Rift – VR Update

In week 28 we learned that In-Worldz is adopting the **Mesh Deformer** for use in their VR world. See: Mesh Deformer Update 2013-28.

We got some more SL statistics this month. See: Some Stats 2013-28. 20% retention rate…

In week 28 we got news that Linden Lab had purchased **Desura**, a software distribution site somewhat like Valve's Steam. See: Interesting News About Linden Lab. More information and speculation is here: Desura Follow up.

Toysoldier Thor posted an article about his experiments with Materials. See: Second Life Materials Experiments.

[youtube ClqgiySYbyQ]

I didn't write much about the **SL Market Place** this year. It was a depressing subject. Darrius did write about. See: Second Life Market Place Update 2013-29.

In week 29 we got **fixes** for repetitive Navmesh rebuilds and Pathfinding's parcel intelligence.

Regions restarts were sometimes doing **double restarts** with the week 29 updates.

**Avastar** 1.0 for Blender/Second Life is released. See: Avastar 1.0 Released.

**Texture Thrashing** came out as problem this month. See: Second Life News 2013-30.

The **Experience Tools** package rolled out to the main channel in week 30 passing the SSA package that remained in RC.

A 50% **discount for education groups** was announced. See: Bits and Pieces 2013-30.

Premium membership account signup saw a 50% discount too.

**CHUI** updates continued to come out during the month of July.

We ran into animation synchronization problem toward the end of July.

[youtube C6BmL8dZoWg]

**August**

*(81 Articles)* – For week 32 and 33 the **SSA** package remained on the RC channel. It made it out to the main channel in week 34. See: SSA Goes Grid Wide this Week (34).

Download Page Changes

The **viewer pipeline** change began to propagate to the more obvious parts of SL. Five candidates made it into pipeline this month.

The Lindens were starting to work Google **Breakpad**, a software error reporting system, into the SL Viewer. More **CHUI** changes were appearing in the RC version of the viewer. The **Snowstorm** RC Viewer became the channel or open source contributions.

To speed up the viewer testing process RC Viewers that are not promoted may be merged with projects waiting for an RC slot. See: Viewer Release Pipeline 2013-34.

A fix was released for Stop Animating Me or VWR-13228 – *Object can obtain and retain permissions indefinitely without avatar's knowledge and no way of knowing who took it*. For details see: Second Life News 2013-32 #2.

As of week 32 the region **shutdown notices** should contain the region name.

Ciaran Laval write an article about the SL Affiliates' program. See: Linden's Second Life Affiliates. I hadn't even known they had affiliates.

In week 33 we got a warning from the Lab regarding Liquid Mesh. See: Second Life Liquid Mesh Early Warning. We know now that the Lab discarded the Mesh Deformer idea and went with Collision Bone mesh or as we call it now: Fitted Mesh.

A video of a Firestorm user meeting made it to YouTube August 12. In it the Firestorm team said there are 1800± version of viewers on the grid. The team thought 1600± were Phoenix-Firestorm viewers. So,

the plan is for the team to start blocking old viewer versions to force updates. See: Explosive Firestorm Meeting. For a follow on see: Firestorm Blocking Update.

[youtube GRFkK6vcOEs]

Gaia Clary figured out what happens with the avatar and how it uses the UVMaps that create some odd distortions. See: Second Life Avatar UVMaps Quirks.

A **second ToS update** arrives this month. It turns out to be much more problematic than the earlier one. See: Second Life ToS Analyzed. Echoes of the change are still reverberating.

For information on how the **server RC** works see: Where is SSA Rolling To?

In Exporting Second Life I point to an article Hamlet wrote about the export ability in the Singularity Viewer. It makes Singularity a must have for advanced SL users.

[youtube lTlnKOYGFrk]

Strawberry Singh asked question about **Liquid Mesh**. Many others were asking similar questions. So, I took another shot at explaining Liquid Mesh and the chances it would or would not break at some point. See: Second Life Liquid Mesh Continued…

[youtube -q9_ZciPBlw]

Gaia Clary publishes her take on Liquid Mesh. See: Another Voice on Liquid Mesh

Mac users were running into more **Texture Thrashing** problems. There was an easy fix. See: Second Life News 2013-34 #2. New versions of the Mac viewer have the problem fixed.

**Group Ban List** was still a work in progress.

Animation Interface was being considered as a joint Third Party Viewer Dev and Linden project to develop a viewer interface to allow the new AO functions to be built into the viewer. See: Second Life News 2013-34 #3.

We got more information about the **GPU table** used by the viewer. See: GPU Table & Performance.

Another Rod Humble interview came to light. See: Rod Humble Interview – July – it was one I initially missed.

This month a report came out on Cyber Crime that shows Windows XP is a vulnerable operating system. See: Second Life and Windows XP
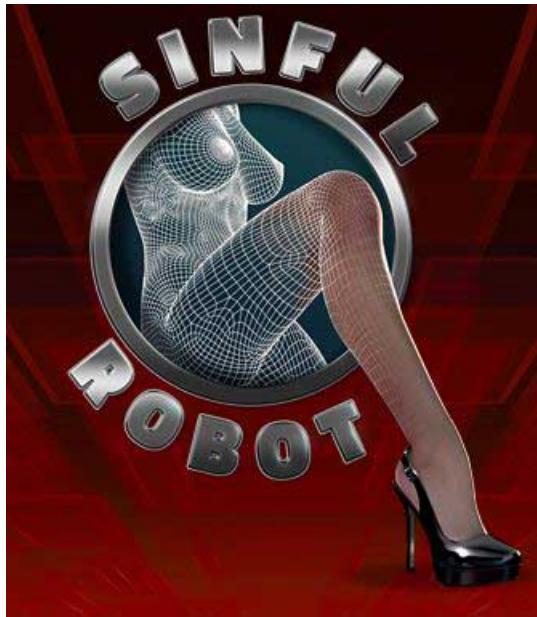
Sinful Robot - A project Designed for the Oculus Rift

In week 35 we got more information on Parcel Access controls for land managers. See: Second Life Access Controls.

An Oculus Rift user visits 1920's Berlin in SL and writes about it. See: Oculus Rift in Second Life's Berlin 1920.

Linden Lab made the Second Life Viewer available on their recently purchased Desure site. See: Second Life on Desura.

Loki Eliot shares what he has learned about building with mesh. See: More Mesh How To.

The Oculus Rift and Sex in SL. See: Oculus Rift and Sex.


**September**

*(52 Articles)* – A Second Life **Viewer for Android** devices came out this month. See: Second Life Android Viewer.

House Triggering Texture Thrashing in some video cards.

**Texture Thrashing** continued to be a problem in September. See: Second Life News 2013-36 #2. Later in the month I published: Debugging a Second Life Region's Lag. The article is based on thread from SLUniverse.

In week 37 we had moved closer to getting an **Interest List** RC Viewer. in week 39 Andrew Linden said he thought he was working on the final fixes for the Interest List. See: Second Life news 2013-39 #2. In the same Beta Server Group Andrew explained how Auto-Return was being changed to defeat some types of griefing.

In week 39 Oz Linden is telling us the **Interest List Viewer** is still in the wings.

We learned the same week that another round of **SSA** changes were coming. Later in the month we learned the Max texture size used by the new SSA render engine is 512x512 pixels. See: Second Life news 2013-39 #2.

By week 39 the SSA project has cleaned up the bake fail problems it was targeting. But, due to inventory and viewer/server communication problems bake fail is still occurring. The priority for bake fail shifts to solving Current Outfit Folder corruption problems, which mixes and with the HTTP project and the creation of new inventory APIs.

**Voice system** code changes entered the server RC channels.

Multi-threading is added for **region crossing** information. The code rolled out to an RC channel in week 37.

Baker saw the **Group Ban List** as nearing completion. Unfortunately we know that it had problems in QA and peer review. So, in December of this year it will still be a work in progress.

The **ToS change** of last month turns into a major point of displeasure with SL users. See: Second Life ToS Change. It took some time for people to notice the rather minor wording change that has major implications for Intellectual Property rights. By late in the month some creative types were leaving SL. See: ToS Update 2013-39. Late in September a panel of RL attorneys working intellectual property rights was convened answer questions and discuss the TOS change. For summary of that meeting see: Second Life ToS Meeting Summary.



Get a Protest Sign

**Ribbon Particles** finally saw the light of day in week 38. In the Beta Server User Group Maestro Linden explained the server side changes, made weeks ago, were to simply add the perimeter: PSYS_PART_RIBBON_MASK.
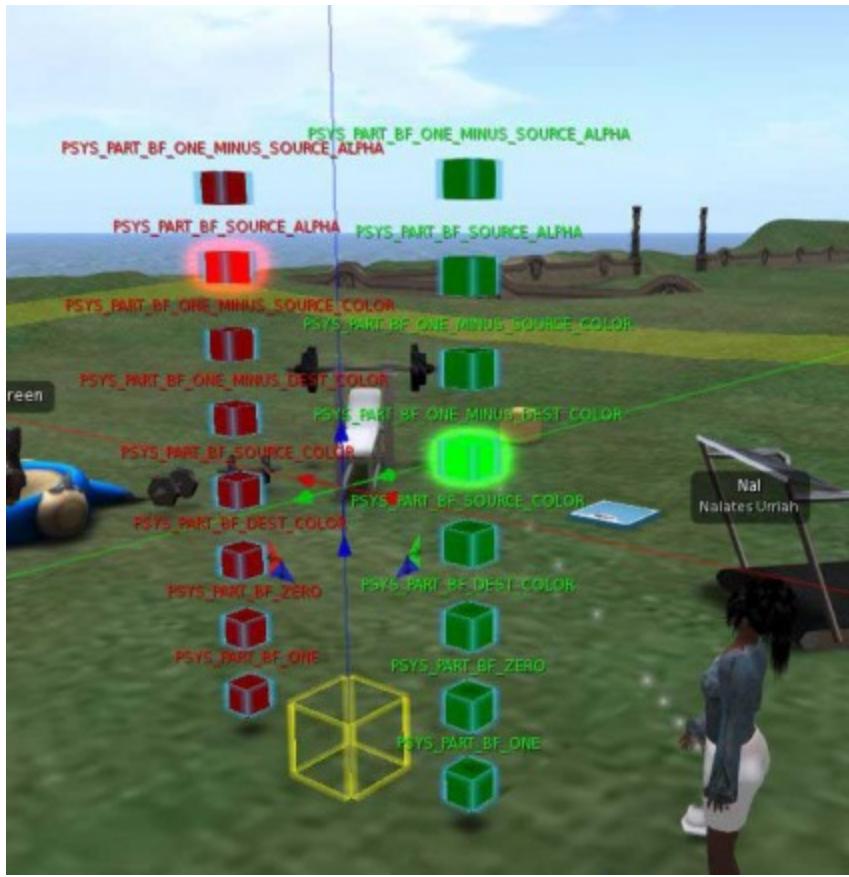
Particle Demo Object

The viewer had to be changed to use OpenGL's particle/sprite features. To learn more about this feature added in September see: Ribbon Particles in Second Life.
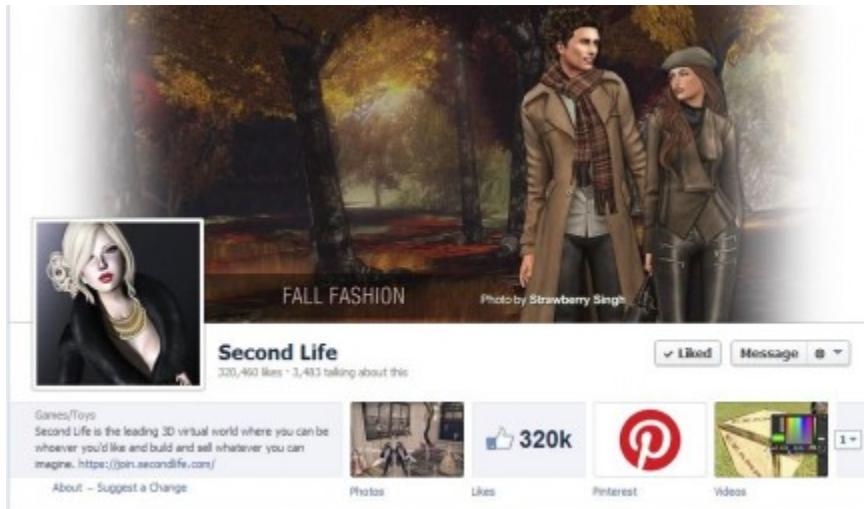


Second Life's Facebook Page

This month we also heard the SL Viewer would gain more **integration with Facebook**. See: Second Life Integrating with Facebook? At the time the article was written it was speculation. The official Linden announcement came late in September: Second Life Share – Facebook. Strawberry Singh wrote about the new feature in: Second Life Facebook Share. For more technical explanation of how Share works see: Second Life TPVDM News 2013-39.

[youtube hAL7Li_h8pQ]

In the last part of 2013 the **Debug Settings** value MeshMaxConcurrentRequests was becoming a concern for the Lindens. SL users were setting this value to ridiculously high numbers. The result is more lag for everyone. See: Second Life News 2013-38. Eventually the API used by the viewer to get mesh was changed to use a reward/punishment system.

In week 38 the LSL function **llXorBase64**() was fixed. . See: Second Life News 2013-38.

The subject of **Pants Flare** came up in the Content and Mesh Upload User Group. Next Linden had something to say about how broken that aspect of the viewer's render is. See: Second Life Content & Mesh 2013-38. This article also has a section that quotes Nyx's response to the question asked about the possibility of dual avatars.

The **Viewer Pipeline** is working pretty well my week 38. Viewer releases are coming faster. And RC viewers are getting better testing via user use. See: Second Life Viewer 3.6.7-281236 RC.

Users were using some of the new features in SL to make interesting **new avatars**.

[youtube fAhPvbl_cR0]

Week 39 saw fixes for **llXorBase64**(), **llReturnObjectsByID**(), and **llJsonSetValue**() rollout to the RC channels.

**Oculus Rift** remained a point of interest for Jo Yardley. See: More Oculus Rift 2013-39.

[youtube INDKNA7kXoo]

In week 39 we learned the **LSL Syntax Files** were being tested in pushed along by Oz Linden. Earlier this year in February Ima Mechanique was working on this project. From outside it's hard to know who's doing what. I think it was Ima there was writing viewer side code and specs for server-side behavior. It was Oz working inside the Lab the got the changes implemented and tested. See: Second Life news 2013-39 #2.

In week 39 Oz Linden provided information that 25 to 50% of regions have at least one **Materials** enabled item. In week 40 we learned a more precise number was 33% of regions had at least one materials object. We also learned class III video cards and up can make use of ALM (Advanced Lighting Model) and have acceptable performance levels. But, class III and four cards do take some performance hit. We heard that 20% of those with class III cards and up have ALM enabled. For more details see: Second Life TPVDM News 2013-39.

Second Life got some good press in September. See: [Good Coverage of Second Life](#).

And **Animation Influencing Interface** is being considered. The feature we discussed in the third party viewer developers meeting (TPVDM). This is feature that would improve how the viewer communicates with scripted objects. So, things like Firestorm Viewer's bridge and RLV's controller would not be needed. See: [Second Life TPVDM News 2013-39](#).

**October**

*(31 Articles)* - This month the server RC channel got fixes for **JSON** and delivery of **group notices**.

Baker Linden was working on the **Group Ban List** code for the viewer. At the time I guessed we would see this project rollout in 3 to 4 weeks. I was wrong. In week 40 Baker's code was headed toward QA. Details of the project as it stood in week 40 can be found here: [Second Life News 2013-40](#). In week 41 the code was still waiting for QA slot.

In week 44 we got word from Baker Linden that Caleb and Maestro Linden were reviewing his **Group Ban List** code. Some problems were found in Baker was rethinking how to implement the Group Ban List. See: [Second Life News 2013-44 #2](#). The need for changes ultimately means we will not see this feature and 2013.

Vehicles were still having problems **crossing region** boundaries. It seemed the vehicle would get caught by the region's return policy. The Auto-Return timeout would try to return the vehicle. With an avatar seated in the vehicle that was not possible. When the vehicle crossed a region boundary the semi Auto-Return'ed would cause a failure.

Simon Linden was looking at making changes to how the system evaluates **Object Render Weight**. Simon was collecting actual-case data to guide the revisions.

**The SSA project** to eliminate bake fail at this point had changed focus to inventory problems. These mostly had to do with reliability of the Current Outfit Folder, which is tied up with reliability of inventory functions. To solve the problem the lindens were creating new inventory API' s. See: [Second Life News 2013-40](#). In week 41 Simon Linden told us the details of the new Inventory API's had been provided to third party developers.

And **Interest List Viewer** was being anticipated for week 41. In week 42 we also heard from Richard Linden that **Interest List** changes were being finalized. The latest code was in QA. But, not yet ready for released to third party viewer developers. Richard gave us lots of information on how the Interest List changes were changing things. See: [Second Life News 2013-42](#).

In the month of September **Mesh Eyelashes** were getting some coverage. Personally I love them. Juicybomb and Strawberry were writing about them and providing some handy information. See: [Second Life Mesh Eye Lashes](#).

In week 42 an **ATI video card incompatibility** was addressed by fixes in Second Life™ Viewer 3.6.8 (282367).

The **HTTP project** was waiting on a QA slot.

In week 43 we saw mostly bug fixes rolling out the server RC's.

This month we saw the Firestorm Development Team announced their development of a 64-bit viewer. See: Firestorm 64-Bit Viewer?



Image by: DoctorWho80 - Flickr

Linden Lab via Peter Gray finally responded to the uproar over the **TOS change** affecting intellectual property rights. See: Second Life TOS News 2013-43.

In week 44 some new features appeared in the RC viewers. The GPU Table got updates. The Facebook Share feature appeared in an RC viewer as 100% opt in feature. And the Request Teleport feature was added. For more information see: Second Life News 2013-44.

Also in week 44 BUG-4142 was getting a fix. That problem had to do with a 'parcel full' errors associated with vehicle region crossings. See: Second Life News 2013-44 #2.

**November**

*(29 Articles)* – The first week of this month we got a server RC with infrastructure changes the prepared the way for the **Advanced Experience Tools** (AET). I think it is about this month the AET is celebrating its second birthday. Implementing AET has a lot to do with permissions. With the addition of Desura to the Linden family I wonder just how permissions are changing.

On the 7$^{th}$ of November we had **a planned shutdown** of Second Life. It was only for a few hours to facilitate database maintenance.

In week 46 server RC was running a package with **Grey Goo** limit changes. If you want to know more about Grey Goo see: [Second Life News 2013-46](#).

One of viewer RC's had an update to the GPU Table.

The **Viewer Release Pipeline** was somewhat empty as several viewer changes were stuck in QA.

One of the RC viewers has a basic change for how viewers work with the servers. When logging in the server send information about the avatar's appearance. That includes information about items in all the clothes lots. Until this change the viewer was not able to take advantage of that information.

The **HTTP Project** was still in QA in week 46. Monty Linden was explaining to us his work in November was a cleanup of the libraries used to build the SL Viewer and server packages. This cleanup will make it easier to build 64-bit viewers.

Problems in the use of  **Meshmaxconcurrentrequests** (Debug Setting) were still being discussed. Monty was thinking it was becoming more likely the Lab would need to set limits. And you API with a reward/punishment type feature was becoming more likely.

The **Facebook – Share** feature was found to be sending a highly compressed 1024x1024 image to Facebook. The results are not impressive. Along with the image a load of Google analytics data was being sent. Third party viewer developers are hoping to be able to send a better quality picture and to drop a lot of the analytics data. Linden Lab is going to have to make a decision on whether they will allow that.

Jessica Rabbit?

For more information about **64-bit Firestorm Viewer** see: Second Life News 2013-46. You will need to scroll down a ways.

In week 46 lab announced the official release of the **Interest List Project**. See: Second Life News 2013-46 #2.

On the 18th of November Jessica Lyon, the project manager for the **Firestorm** team, announced they would start blocking older Phoenix and Firestorm viewers. They were letting users know that only three of the latest versions of a viewer would be allowed on the grid. See: Firestorm to Start Blocking Viewers.

In week 47 the **Experience Tools** Infrastructure package rolled to the main channel. This is the package that prepares the way for future Advanced Experience Tools. The same weight the RC channels were getting a package with lots of fixes and several new features. See: Second Life News 2013-47.

This week Linden Lab announced the change in how they will be reporting SL user income for **taxes**. See: Second Life Taxes.

November 20th we got word the **Mesh Deformer** was being discarded in favor **of Fitted Mesh**. This was a huge and controversial announcement. See: Mesh Deformer Changes. The Collision Bone weighting used in Liquid Mesh is to be improved and used for mesh clothes instead of using the Mesh Deformer.

Also in week 48 we heard comments from Qarl Fizz and Oz Linden about Fitted Mesh. See: Second Life Fitted Mesh 2013-48.
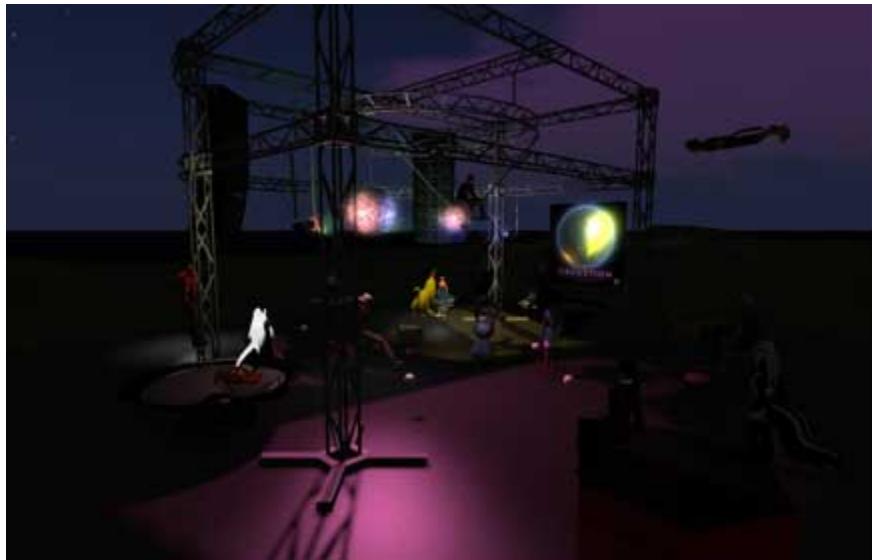


Server Beta User Group 2013-46

Changes to the **Grey Goo Fence** had caused large building rezzers to fail. Changes made rolled out in week 47 seem to have fixed the problem. See: Second Life News 2013-47 #2.

In week 47 Second Life got new **region update scripts**. They were expected to reduce the time it takes to roll new software out to the servers.

In week 48 the **GPU Table Viewer** rolled out to become the main viewer for Second Life. The Google Brakepad Viewer was pulled off the RC viewers page while changes were being made. The Interesting Viewer, the one for the Interest List Project, was still being worked on and remains an RC viewer. A new project viewer is listed on the page titled: Fitted Mesh Viewer.

Also in week 48 Nyx Linden was hoping to have a viewer into QA that takes advantage of the new **HTTP project**. This would include the new AIS-3 Inventory changes.

Monty Linden continues to work on the **code libraries** used to build the viewer and server. One of those he was having problems with was the Collada library.

Also this week people from **LEAP Motion** were at the third party viewer developers meeting. Both the LEAP Motion people and the Lindens **are** wanting to integrate LEAP Motion and Second Life viewer. The LEAP Motion people were looking for third-party developers to help them. At the time the Lindens did not have people available to work with the project.

The new **Voice code** was creating some problems. In some cases the speaker was unintelligible to the listeners. At the time the Lindens were looking for people that can reproduce the problem reliably.

Excitement about **64-bit viewers** continues. See: Second Life News 2013-48.

**December**

*(28+ Articles) -* In week 49 a fix for detecting when an **avatar was crouching** was rolled to an RC channel. For a few more details and some links see: Second Life News 2013-49.

The subject of '**Tier** is too damn high.' came up again. I wrote about 1500 words on that subject. See: Second Life Tier – Again?

On December 5th Voidpointer Linden announced that Linden Lab's **Oculus Rift integration** to the viewer was feature complete. See: Breaking Oculus news.

In week 49 in 50 we only saw small packages rolled to the server RC channels. Weeks 51, 52, and 2014's week one are **no change windows**. There will be no server updates in that period.

In week 49 we also found out that Drax Dupree will be starting a podcast radio show January 2014. See: Drax Files Radio.

In week 49 we also found out some more about the **AIS-3 Inventory API**. For bit more information and a link to technically detailed information see: Second Life News 2014-49 #4. In the article I included information about the code libraries.

In week 50 Oz Linden gave us some stats on **Materials** used in Second Life. The numbers are; about 10% of avatars have a Materials enabled something and 50% of regions have at least one Materials enabled object in them.

In week 51 Second Life entered a no change window.

**Summary**

Doing an annual review like this is a lot of work. I have to decide what to put in and what to leave out. And with 508 articles published this year lots of stuff got left out. But, I think I have hit the major points.

If you want information on any of the subjects, look at the article's category and tags for links to more articles on the same subject.

To make the article more useful I've included a link to the Word document. The document is, of course, machine searchable.

I wish you a Merry Christmas and Happy New Year.