Covey Rez Pro V6

Introduction

The Covey Rez Pro system can be used as an essential Pack and Rez system, as found in many Rez boxes. However, it can do much more than just being a rez box. This system can record and rez-sets of items.

For example, you might have different sets of furniture for a room. With the Covey Rez Pro system, you can easily and quickly switch between them. That is not restricted to just something room size. That could be entire regions if you wanted.

You also can rez and de-rez individual items. In addition to this, it is designed with nested rez boxes in mind. For example, you could have one rez box, which contains ten rez boxes. Each one can be rezzed and then automatically moved into place. Then you could re-order all the items from it, including a set of items or a single item.

API

There is a full Inbound and outbound A.P.I., which will allow a multitude of other functions, such as using it as a vendor's rezzing add-on. It also allows automated collection and repositioning of sim vehicles without the need to use temp rez, as is the usual case now. Everything can be automated and triggered by other objects in a sim. So, it can act as a full-scene switcher / Holodeck.

Absolute and Relative Rezzing Modes

There are two rezzing modes. Relative is the typical method for a rez box where the items will move around if the box moves. It also has absolute positioning which will return the items to their original position on the sim. The system supports SIMs of any size (opensim) and will allow you to rez all the way up to 10 km high in opensim or 4096m in Second Life. Underground movement is also possible. (In opensim this is server dependent). Complete checks ensure you cannot attempt to rez an item outside the sim boundaries.

Test Recording

There is a test record feature when recording item positions. This sends the items 500m into the sky, making it very easy to see which items have not been recorded and drop a script in.

Resource Conscious

The system has been coded from the ground up to be used in Opensim and Second Life. It is designed assuming that items will be left out. Usually, rez systems run a timer to detect the movement of the rez box. So does this system, but it can be turned off. The memory requirements have been kept to an absolute minimum, meaning there should be no adverse effect on your regions when using the system and leaving objects rezzed.

Listeners are only turned on when they are needed and disabled when they are not.

You can have as many Rez boxes out on one SIM as you like. Boxes owned by other people will not interfere with yours at all. With your own, the only limitation is that only one Rez system at a time can be set to record. Even that is made safe so that when recording is enabled on one system, any others in the same SIM will have recording disabled.

Non-Destructive – Doesn't change the item Description.

The system is non-destRUCTIVE for your items. Because it uses LinksetData to store settings and positions in your items, the item description remains untouched. Since many items use LinksetData for their own purposes, you can pack many more items than you can with other systems. This is also one of the reasons you can have nested rez systems.

Safety Features

Like all rez systems, packing and rezzing no-copy items can quickly end up with you permanently losing the item. Covey Rez system pro protects you against this by detecting it and refusing to record the item. Of course, you get notified. You are protected against dropping a script into the same item twice when packing items. Should you do this, the duplicate script will be detected and removed.

There are many other features to help you along the way. Keep reading to find them all, or just dive in and have a go.

How To

Unpacking

To get your copy of the Rez Pro System, please visit the Covey Store in Second Life or Utopia Skye opensim Grid. It's also available on the Second Life marketplace.

If you purchase from the Second Life marketplace, you will receive a folder with an empty Rez box and some scripts.

However, if you purchase from a vendor in Second Life or Opensim, you will get a shopping bag back. Wear the bag, and it will be unpacked into your inventory.

Once unpacked, you will find an empty rez box, an item prim, and another bag with helper scripts in it. Unpack them all and make them subfolders of the main.

You will need to rez the item on the ground and then drag the script to your inventory.

Do the same with the rez box and helper scripts.

<u>About the Helper scripts</u>

Second-life marketplace purchases: The scripts are auto-removing after use.

Vendor purchases: The scripts must be deleted manually after use. A self-deleting script cannot be added inside an item.

Rezzing Objects (Basic Use)

These instructions start from Point you have successfully packed a rez system with some items. If you have not, please follow the notecard:

How To use - Creating A Rez System (packing items)

1. Drag your packed rez system from your inventory onto your land.

You will see a notice in the local chat advising you that the recording has been disabled.

2. Click the rez system

3. Click on Rez Mode and choose either Absolute or Relative.

Relative positioning will rez your items in relation to the position of the rez system allowing you to move them around and rotate them.

Absolute positioning will return the items to their original position and rotation on the sim you packed them on.

Most Rez box systems use relative positioning so if this is what you're looking for use Relative.

4. Click on the Main Menu button

5. Click on Rez/DeRez

6. Click on RezAll

7. Assuming you chose relative mode, if you now move the Rez system around or rotate it your items will move with it.

Now you can either de-rez your items ready to rez again later. Or if you wish to leave them in this place permanently, go back to the Main Menu and then click Finalise. That will remove your items' settings cards and Covey Rez system scripts.

NB. If you wish to leave the Rez system out with items rezzed so that people can interact with them while rezzed, it is strongly recommended that you follow the next two steps.

8. Click on the Main Menu button, then the Rez Mode button

9. Choose Absolute. When you come to rez the items again, you just need to turn relative mode back on from the same place. Suppose this Rez system will be a permanent fixture on your SIM. In that case, you should read some of the more advanced documentation regarding the use of Absolute Positioning, re-recording and the A.P.I.

Creating a Rez System - Packing Items

The Covey Rez Pro system is far more than a basic rez box system. This tutorial only focuses on the basics of creating a rez system by packing items into a rez box. In the demonstration, I make everything fresh. However, your rez system container doesn't need to be a box; it could be any item from your inventory (assuming you have copy permissions on it). The same is true of the items packaged.

Tip: If you are packing items you need from your inventory rather than new items, it is a good idea to relog before starting so your recent items are clear.

Rez a fresh copy of the rez box from your inventory, or make your own as done below.

1. Start by building a fresh box.

2. Give the box a sensible name you will recognise. e.g. Covey Rez Pro Demo Rezzer.

3. Copy the following scripts into the new Rez system contents. The Linkset Data script must go first.

- RezProV5_Set_LinksetData (delete after use unless purchased on the marketplace)
- RezProV5_Rezzor
- RezProV5_Menu
- RezProV5_Control2
- RezProV5_Control1
- RezProV5_Api_SL (Optional)

Optional Step: Opensim Only

3.a. Click on the main menu and then "ReTexture" to add a direction arrow, shape and texture sensibly,

4. Build another box and give it a sensible name. i.e. "Test Item". or just drag one from your inventory.

5. Duplicate the item a few times.

Optional Step:

5. a. Edit the rez system and select the texture tab. Then, put a checkmark in "Select Face" and click on the arrow on the top of the rez system. Finally, adjust the "Rotation Degrees" so the arrow points to the middle of the items you just made.

Opensim Only Choice:

At this point, we need to consider whether to use auto or manual pick-up. If your SIM lets you use osForceAttach, you should choose auto-pickup in most cases. Both auto and manual pick-up modes are found in the "RezMode" menu. If you are unsure, try auto. The worst that can happen is you get a load of script errors and have to try again. Auto pick-up will force attach the item to your avatar and then drop it directly into your inventory.

6. Click on the "RezMode" menu and select either "AutoPickup" or "ManPickup."

7. Drag and drop the "Covey Rez Pro V* - Items" script onto each of the items you wish to pack.

If you are using Auto Pick-up (opensim only), they will go straight to your inventory. (New items will be found in your objects folder, items you rezzed from your inventory will return to the folder you rezzed them from and can be found using the recent items tab of your inventory).

7. a. If you are using Manual Pick-up, you should have a message from each item telling you that you can now pick it up. Don't worry about dropping a script twice as a duplicate will automatically be removed. If you're unsure which items you put scripts into, simply go to the "RezMode" menu and then select "TestRecOn". Items you have recorded will be pushed 500m into the air. Repeat dropping and testing until you have all items recorded. When you do, either fly/come up and pick them up in the sky or click "TestRecOff" to bring them back to their original position.

7. b. Right-click and take each item. It will then go to your inventory.

8. Drag the items you just took to your inventory from there into the contents/inventory of your rez box.

You're done! If you wish to test it, go to the "Rez/DeRez" menu, then click "RezAll" and "DeRezAll." In another tutorial, I will discuss Rezzing and using the items in more detail.

Placing Builds Permanently

The Covey Rez Pro system will do far more than act as a regular rez box. However, it will still do exactly that. If you wish to leave something out permanently, you only need to "Finalise" the items.

Simply rez your items, moving and rotating the rez box until it's in a situation you're happy with. Then, on the main menu, click the "Finalise" button. This will remove all Covey Rez Pro scripts and settings cards from the items.

Making Rez Sets (Advanced Packing)

Rez sets allow you to have multiple groups of items in your rez box, which you can rez and de-rez independently of each other. For example, you might have various sets of furniture for a room. A later note card will cover using them; this one just covers creating the sets.

The easiest way to see rez sets working is by using coloured boxes, so for these instructions, we are also going to create the items from scratch.

1. Build a box which will become your rez system

2. Edit the box and give it a name

3. Drop in Scripts :

4. (Optional, but recommended step). Opensim only; SL doesn't have prim text in the same way. Click on Main Menu, Then ReTexture. This will make the rez system clear among the other objects you're about to make.

5. Record The items for your first rez set and drop them into the rez box

6. RezSets Menu - click Make rez set and give it a name.

7. Move the items from the rez box to a folder in your inventory

8. Record a new set

9. Make a new rez-set with a new name

10. Repeat steps 8 and 9 until you have made as many rez sets as you need

11. Return all items to the rez box.

Rezzing And Removing Sets / Individual Items

This notecard assumes you have read "How To Use - Making Rez Sets (Advanced Packing)" And that you have a Rez system with multiple rez sets inside it.

Rezzing Sets

You can rez sets in two ways, either by selecting them from the menu or by typing in the set's name. The recommended method is to choose Set Lists. That way, all sets in the Rez System will be displayed on a menu. Then you can click on the item in question. However, if you prefer, you can enter the name of a Rez Set or individual item to rez or de-rez.

At any time, you can rez an additional set, remove a set from all items. The same applies to individual items.

To rez or De-Rez a set from the menu, choose:

Rez Set By Menu = MainMenu/RezDeRez/RezSets/RezSetList   Then click on the name of the rez set from the menu

DeRezSet By Menu = MainMenu/RezDeRez/RezSets/RemSetList. Then click on the set to deRez from the menu

To Rez or DeRez A Set By Name:

Rez Set By Menu = MainMenu/RezDeRez/RezSets/RezSetName   Type in the name of the rez set (case sensitive and space sensitive)

De-Rez Rez Set By Menu = MainMenu/RezDeRez/RezSets/RemSetName   Type in the name of the rez set (case sensitive and space sensitive)

Rezzing Individual Items

You can rez or de-rez individual items 2 ways: As above using either a menu or by typing the name of the item/set into a pop up text box.

Rez/DeRez Item By Menu

Rez Item By Menu = MainMenu/RezDeRez/SingleItems/RezItemList   Chose item name from the menu

De-Rez item by Menu = MainMenu/RezDeRez/SingleItems/RemItemList   Choose the item name from the menu

Rez Item By Name = MainMenu/RezDeRez/SingleItems/RezName   Type in the name of the item (case sensitive and space sensitive)

DeRez Item By Name = MainMenu/RezDeRez/SingleItems/RemName   Type in the name of the item (case sensitive and space sensitive)

Underground Movement

Opensim Warnings - Mostly Older server versions

USE THIS FEATURE WITH EXTREME CAUTION!!

WITH SOME OPEN SIM SETTINGS, THIS COULD CORRUPT YOUR REGION

DO NOT USE THIS UNLESS YOU HAVE AN OAR YOU CAN RESTORE AFTERWARDS!

CAN ONLY WORK WITH UNDERGROUND MOVEMENT ALLOWED ON THE GRID REGARDLESS

In the RezMode menu, you will find an option to turn the Underground movement on. This will allow items originally recorded with underground positions in Absolute mode to be returned to their original positions. This will also allow items to be pushed underground if you're using Relative positioning.

By default, underground movement is disabled. In addition, no items positioned underground will auto pick-up; they will be forced into manual pick-up mode with a warning given at the time.

This feature can be very useful for restoring complete sim builds to their original positions, but please heed the caution.

Workaround To Avoid Underground Rezzing

The key point is that the ROOT PRIM of an object may not be underground. The child prims don't matter. The way this can be fixed is by creating a new root prim.

1) Rez a new prim and resize it rather small. A sphere will work fine.

2) Position this prim a meter or so above the trouble-making object about centre of it.

3) Rename the new prim to whatever the objects name is and add something like "Fixed for rezzer".

4) Edit the object, hold down shift, then select the new sphere then choose "Link".

5) The sphere will be the new root prim of the object.

6) Edit the object and click the "Edit Linked Prim's" box.

7) Select the sphere (The new root prim) and making sure it's the only link selected.

8) Go to the texture tab and change the transparency to 100.

Your object now has a new root prim above it and the visible part can be moved as much underground if you wish.

Relative Vs Absolute Positioning.

Core Difference:

Relative Mode: Rezzed items will move and rotate with the Rez System if you move or rotate it.

Absolute Mode: Items will return to their original place and rotation on the sim.

Both modes have their uses. If you wish to position items such as houses on a sim, the relative mode is the mode to use. The issue with relative mode is that while items are rezzed, the Covey Rez System (like all rez box systems) runs a timer to check if the rezzer has moved. This means there is a constant drain on the sim's resources.

To combat this, the timer is turned off any time you de-rez items, even in relative mode. You can also set the mode to absolute after rezzing to remove the timer and then back to relative mode if you wish to move the items around again later.

If you plan to use items in the same position on your sim, such as rezzing vehicles on a dock, you should use Absolute positioning. With absolute mode, the rez system can be anywhere on the sim, totally out of sight, and the items will always rez in their original positions.

Absolute mode is also useful if you're trying to move new features from one SIM to a backup SIM and wish them to be returned to exactly the same positions.

The Covey Rez Pro system allows you to easily change a rez box from relative positioning to absolute positioning. You can position your items using relative positioning, then re-record and have the system use this new position for absolute mode. A separate notecard will provide more details on this process.
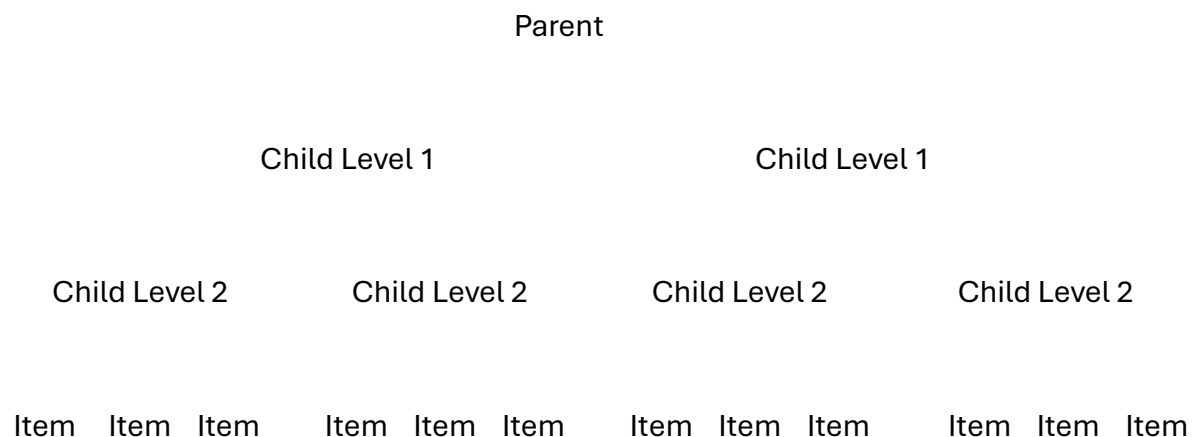
Summary: If items are going to be rezzed regularly and users interact with the rezzed items, Absolute positioning should be used whenever possible. Relative positioning is the choice if you want to layout items on a SIM. Typically, you would finalise a build in this case or then re-record to use absolute positioning. Of course, there could be exceptions to this.

Nested Rezzer

What is a nested rez box? It is the process of taking a rez box packed with items and placing it inside another rezzer, which will rez out that rezzer.

It is easiest to picture as a pyramid of rez boxes with a parent-child relationship.

At the top of the pile is your parent rez system.

Parent

Child Level 1   Child Level 1

Child Level 2   Child Level 2   Child Level 2   Child Level 2

Item   Item   Item   Item   Item   Item   Item   Item   Item   Item   Item   Item

The parent rezzes the Level 1 Children. Then, each of the level 1 children, in turn, rezzes more, either more rez systems or actual items. You can take this as deep as you wish to go.

The basic process for this is precisely the same as packing any other rez system, just done in a specific order level in the tree; the items are packed into the rez boxes at the first level in the tree.

Stage 1: pack the items into each of the level 1 rez boxes.

In Stage 2, put item scripts into each of the rezzers next up the tree. Then, take them to your inventory and pack them into the relevant boxes on the next level up the tree.

Stage 3. Keep following this process until you only have one rez box left as the parent rezzer.

This process is mostly aimed at the API, so you can automate what to rez, where to move each box, and which items or sets to rez from which box.

Using coalesced objects

Coalesced (grouped) objects are a bit like linked objects in that you have many items all packed into one object in your inventory. They are not however linked objects and after

rezzing will act like any other unlinked item on the SIM. You can combine many linked items into one Coalesced object When rezzed they will return to the original linked objects you grouped together.

Coalesced objects can be very useful in rezzing systems. Because your combining many items into one, the rezzing script has less work to do. The script has at least one job per object it rezzes from its contents. So if your combining 10, 20, 100, 250 objects into 1 it puts less load on the script. This is also a nice way to avoid script event time outs.

Creating coalesced objects if relatively easy. Edit one of the objects you wish to add, then left click and drag a box which surrounds all the items you wish to group. Let go of the left button then right click over any of the highlighted items and select Take.

There are a few problems with this method though. Doing this prevents you from accessing individual items within each coalesced object from the Rez system, The coalesced object is one item as far as the script is concerned. That same drawback can be used as another way of making rez-sets though.

The second drawback is that you get everything dumped out at once, it can make an unsightly mess while everything moves into place. This would be an especially important consideration if you were rezzing items in the middle of an active sim.

Coalesced objects should be kept to less than 250 items per coalesced object. If you go over this number in theory they will be split into multiple parts. In practice, especially when the items your grouping are spread out over a wide area i have seen this cause sim crashes. Since there is no benefit to trying, keep them to less than 250 as you make them.

Opensim Warning!

Finally, DO NOT USE coalesced objects in conjunction with the Underground movement EVER! There is a high likelihood you will crash the sim/your viewer or both. There is a bug present in the Open Sim software which causes items used this way to turn physical. It even overrides the simulator's maximum physical prim settings. Again, DO NOT combine COALESCED objects with UNDERGROUND movement.

Re-Recording Items

You wish to alter your build after it was initially recorded but do not wish to go to the effort of dropping scripts one by one to make a new rez system

Change the position of your rez system in relation to the items it rezzes. Full instructions on doing this in another notecard.

Change the Absolute position of the items after placing them correctly using relative positioning.

In preparation for combining smaller builds into a much bigger one.

The process is the same for all situations.

Rez the items and go to the PosRecMenu

If you are recording massive builds (more than 1k objects) click PrepReRecrd instead of Re-Record All in the next step.

Click on Re-RecAll.

The system will then ask you if you want to automatically delete items from your rez system. Usually, you can say yes to this safely. HOWEVER, if you have only rezzed some but not all items in the Rez system, do not select this, as it will remove all objects from the system's contents.

If you don't automatically delete the items from the rez system contents you will need to do this manually.

Re-recording is always forced into Manual pick-up mode to avoid issues when many items try to attach to your avatar at the same time.

If this is a massive build and you used PreReRecrd, you will need to box select all items afterwards, then reset the scripts through the viewer.

The above levels for re-recording or prep-recording apply to Open Simulator grids using the default open sim settings. If your grid uses settings allowing for more script events in the queue then you may well be able to use a greater number of items without the box select.

Text Info, Chat Feedback, Box Properties

The status of almost all settings can be displayed in hover text..

To access the hover text display go to the "InfoDisplay" menu

"TextSetting" - turns on hover text display of the current settings

"TextContent - turns on hover text display showing a summer of the systems contents

"TextOff" - turns off the hover text display.

In the same menu, you can also disable Chat Feedback by clicking "ChatOff". It can be enabled again by clicking "Chat Off". It is strongly recommended that you do not turn chat feedback off until you are 100% sure this is a working system and only then if you need to. If you turn this off you will not be able to see any errors.

It is useful, however, if you're in a situation where the system is being used by SIM users in general via the API and you, as the owner, don't want constant messages telling you someone did something.

The last two settings in here are again usually used via the API and are for situations where the Rez system is part of a larger project. The rezzing object can be made invisible by clicking "AlphaOn" and visible again by clicking "AlphaOff".

The same principle applies to phantom on and off, making it so that the razor does not get in the way of avatars or moving objects; everything will just pass through it as if it's not there.

Changing The Position of the Rez System in relation to the Items Rezzed.

There is no need to do this if your build will only ever be restored in Absolute mode.

Hypothetical Situation:

You have packed a build. When you started the position of the rezzing object seemed sensible. But now it seems odd, it's off to one side or whatever else.

This can be fixed without creating a whole new system and recording from scratch.

1. Go to the PosRecMenu

2. Click on AllowRePos

3. Move the rezzing object into its new position.

4. Click SetRecPos

4. Click ReRecAll

Allow the system to automatically remove the items from the box or do it yourself manually.

Once all the recorded notifications in chat have stopped, pick up your items and put the new ones into the rez system's contents.

For those of you with a technical mind, this actually sets the positioning to Absolute, which in turn stops the timer from giving position updates to the items. Clicking SetRecPos sets the new starting position of the items used to calculate their position in relation to the Rez system's position. Recording all items forces the items to run that calculation again. So, from the script's point of view, it's almost identical to a fresh system. It just saves you, the user, time.

BoxPos & BoxRot Buttons

These two buttons can be found in the PosRecMenu.

The function is obvious: one moves the box to a position you specify, and the other sets it to a rotation you specify.

It is unlikely you will ever use these from the menu. The function is here mainly for use via the API. It allows the rezzing object to be moved and rotated by other scripts either in relative mode, so its items follow it or before rezzing. However, if you wish to use this via the menu, the option is there.

Moving Items from One System To Another

In most cases moving items from one Rez system to another is as simple as opening the contents tab on one, copying the item from there into your inventory and then copying them again into the new rez system.

There are certain cases however when this may not work. Usually because people have picked up items a second time after they have been rezzed and placed that copy into the contents. However if your combining rez systems into a larger collection you may also wish to convert the entire set into a coalesced object to save server resources.

In either case you can use the PrepBoxExch button found in the PosRecMenu.

Rez the items, click PrepBoxExchange

Then pick up the items as individual objects or coalesced objects then drop them into the new system.

Very lagged, overloaded or slow regions.

The Rez Slow option is available for very lagged or slow regions. It reduces the speed to try to prevent messages from being lost.

Safety Features

Copy Permission Checks

Each time you drop a Covey Rez Pro Item script into a prim, it checks that prim for copy permissions. If you do not have copy permissions on that object, it will warn you and refuse to record.

This is not foolproof, as the script does not accurately detect certain situations. It will detect direct permissions on the object and any object in the item's inventory. However, it may miss anything more profound than this. So, you still need to be careful about not rezzing no-copy items from a rez box. If you do, you really should finalise it afterwards. If you tell it to de-rez, the item will be lost.

Double Rez Prevention

This only applies when using "Rez All;" it does not apply to rezzing Sets or Single items.

If you attempt to rez items while they are already rezzed, the system will refuse to rez them again. This prevents multiple copies of the same item from occupying the same space.

If you somehow end up in a situation where nothing is rezzed, but the system thinks there is (such as you manually deleting items or removing them all through Sets), simply use the de-rez all button and then rez again.

Double Script Drop Checks

All the Covey Rez Pro scripts check for existing versions of themselves when you put them into an object. If you add two item scripts, one will be removed, and a notification will be given to you.

The same is true for all the scripts. It is impossible to have two copies of any of them.

Rez Limit Protection

Covey Rez Pro comes with a host of features to make your life easier and to help you avoid losing items or just going "arrrrggghhhh". One of these features in rez limits protection.

If you push an item outside the boundaries of the sim with a script they will simply vanish. While this is not a huge problem with a rezzer it is annoying. Especially if you want to rez near the edge of a sim and then rotate. The Covey Rez Pro fixes this issue for you.

Each time an item is rezzed it will check the size of the region it is rezzed on. Then if an item tries to move to a position outside the boundaries of the region it will send an error

to the user and refuse to move. The same applies to attempting to move items above 10 km high or below ground (unless you enable underground movement),

If you then move the rez box in such a way the items are no longer trying to move outside the boundaries of the region they will then return to the same position relative to the box they always have been.

A word of caution Opensim Only:

Due to another open sim issue the Covey Rez Pro doesn't try to move an item into position just once. If it doesn't succeed the first time it will try, try and try again. This was necessary to avoid items unexpectedly not moving. However, it also means if you try and move items Off Sim, the system will keep trying to move them time and time again. With a small number of items this will not be a problem. However, if you tried to move thousands of items off the sim, you could find that the server simply doesn't respond to some items. Even if it doesn't until you move the rezzer to a position where it is not trying to place items off the sim, this will put an unnecessary load on the sim.

If you get sim limit errors in relative mode move/rotate the rez system until it is not happening. If you get them in absolute mode de-rez the items. In absolute mode, items are returned to their original position. So, the only way this should be possible is if you record items on a Var region which is larger than the one you are attempting to rez on. Unless it is due to items trying to move underground. In which case see the notecard about underground rezzing and try again

User Input Validation

Every time a user directly enters information, such as a rotation, position vector, or anything else, full validation is carried out to ensure that the value entered is plausible.

If it asks you for a vector and you do not provide a vector, then it will give you a warning and ask you to try again. The same principle applies to all types of data you may enter via the menu or via the A.P.I.

This is one reason it's not a good idea to turn off chat feedback until you have satisfied yourself that your system is working without any glitches. If chat feedback is turned off, the system will silently fail.

There are many additional checks made to ensure names entered exist. Every effort has been made to make it extremely hard to end up with script errors due to user input errors. This includes checks to make sure there are items in the rez system when you try to rez before the script tries to rez items.

Addons

Rez Pro User Access

The Rez Pro User Access add-on allows you to give other users access to a Rez Box. It collects the content and set list from the rez box, and then authorised users can rez and de-rez. Additionally, administrators can change the access level for the item

User Access Levels:

- Everyone
- List
- Group
- Group + List

Access the Admin menu via a long click (click and hold for more than 3s).

Set up an item by inserting the 'ResPro User Access link set data defaults—Del after use' script into it. Next, add the RezPro V6 User Access script.

Once the scripts are in, use the admin menu and change the box number to the same as the rez box you wish to interact with. Note that the access item and the rez box must be in the same region.

Rez Pro/Sim Access Link

This product links to the Covey Role Play Controls System, which will soon be renamed the Covey Sim Access Control System.

The Sim Access link works very similarly to the User Access above. It is initially set up identically. After the steps above, you must use the admin menu to set the item to the server number for the Sim Access Controls.

Once that is set, the Sim Access Server controls access centrally. Users can use the items, and admins can access the admin menu. Then, like all other products, it can support multiple groups that connect to this system and communicate across connected regions. You still set whether it's Everyone, List, Group, Group+ List or owner only locally.

V5-V6 Upgrade

Delete existing scripts inside your rez box. Then drop in the RezPro V5-V6 Linkset Data Update script. Finally, replace the rest of the scripts with the new V6 scripts.

Developers A.P.I.

link_message: num = rezBoxSetNumber

llRegionSay: channel = rezBoxSetNumber

When communication is inbound the instruction is telling the API which method to call and the data is giving the method specific information it needs


```
ProcessApiMessage(string message)

{

   //process the api message and acts on the instruction

   // string arrives in the format "instruction,data"

   list instructions = llCSV2List(message);

   string instruction = llList2String(instructions,0);

   string data = llList2String(instructions,1);

}
```


<u>Outbound API</u>

llMessageLinked: num = -1* rezBoxSetNumber

llRegionSay: channel = -1*rezBoxSetNumber

When communication is outbound the "instruction" is telling API which method was just used and "data" what specific instructions the method used.

Outbound linked messages are sent to all prims except the one the main rez box scripts are in.


```
MessageFeedback(string instruction, string data)

{

   string toSend = instruction + "," + data;

   if (apiLinkedMessage) llMessageLinked( LINK_SET, !rezBoxSetNo, toSend, "" );

   if (apiRegionSay) llRegionSay(!rezBoxSetNo, toSend);

   if (chatFeedback) llOwnerSay(instruction + ": " + data);
```

}

Api General

If the Rez Box Set Number (rezBoxSetNumber) is -987654321 then the outbound channel number is 987654321.

The rez box set number can be found by using the menu or looking at the first number in the object description of the rez box.

Everything you can do through the main menu can be done via the API, as can a few extras that can not be done via the menu.

Both API methods can be enabled and disabled individually. They can also be turned off via the API commands. So take care, as if your not careful you can turn the API off via the API. That would mean you had to turn it back on via the menu.

All inbound and outbound messages through the API follow the same format: one string, which is a comma-separated value. The first half is the instruction, and the second part is the data, e.g., "instruction,data." The code snippet below shows how the script will process the string you send.

Instructions with no data variable

Instruction	Inbound	Outbound
RezItemsApi	All items will be rezzed	All items have been rezzed
DeRezItemsApi	All items will be de-rezzed	All items have been de-rezzed
FinaliseItemsApi	All Items will be finalised.	All items have been finalised.
BoxRePosApi	Allows Box repositioning	Box Repositioning has been allowed
SetBoxPosApi	Set Current Pos for recording	Current position set for recording
ReRecordAllItemsApi	Re-records all items	All items have been re-recorded
AllowBoxRepositionApi	Prepares the box for position reset	The box is made ready for the position reset
PrepItemBoxExchangeApi	Prepare the rez box for item exchange	Rez box prepared for item exchange
PrepReRecordApi	Tells the rezzed items to do a prep re-record	Rezzed items prepared for re-recording
ReRecordAllItemsApi	Tell all items to re-record their position	All items re-recorded their position
ForceUpdateItemPositonsApi		
ResetScript	Resets the script	
RelativeModeTimeOut		Relative mode has timed out, and absolute positioning is enabled to save region resources.
SendInventoryList	Tells the rez box to send the sender a list of all items and res sets.	Sends a list of all items and rez sets. CSV value Item,ItemName CSV value RezSet,SetName

Instructions with a data variable

Instruction	Data	Inbound	Outbound
PositioningModeApi	Absolute	Set Absolute Positioning	Absolute positioning set
PositioningModeApi	Relative	Set Relative Positioning	Relative positioning set
RecordingApi	On	Turns recording on	Recording turned on
RecordingApi	Off	Turns recording off	Recording turned off
RezIndividualItemApi	Item Name	Rezzes the named item	
DeRezIndividualItemApi	Item Name	De-Rezzes the named item	
RezRezSetApi	Rez Set Name	Rezzes the named set	
DeRezRezSetApi	Rez Set Name	De-Rezzes the named set	
HoverTextInfoApi	Settings	Displays Settings in hover text	Hover Text set to settings
HoverTextInfoApi	Contents	Displays Contents in hover text	Hover Text set to contents
HoverTextInfoApi	Off	Turns hover text off	Hover Text turned off
ChatFeedbackApi	On	Turn chat feedback on	Chat feedback turned on
ChatFeedbackApi	Off	Turn chat feedback off	Chat feedback turned off
RegionSayApi	On	Turn The Region Api On	Region Api On
RegionSayApi	Off	Turn The Region Api Off	Region Api Off
LinkedMessageApi	On	Turn the linked message API on	Linked message API on
LinkedMessageApi	Off	Turn the linked message API off	Linked message API off
RezBoxRotApi	Euler Vector in Degrees (like the viewer)	Sets the rez box rotation to data	Rotation set to data
RezBoxPosApi	Vector	Sets the rez box position	Rez box position set to data
DisplayBoxNumberApi	Integer	Request the box number	Data is the box number
RexBoxPhantomApi	On	Make the rez box phantom	The rez box is phantom
RexBoxPhantomApi	Off	Make the rez box solid	The rez box is solid
RezBoxAlphaApi	On	Make the rez box invisible (no effect with PBR)	Rez box is invisible
RezBoxAlphaApi	Off	Make the rez box opaque, no effect with PBR	Rez box is opaque

ItemPickupApi	Auto	Turns on Auto Pick up Mode (opensim only, overridden to manual in Second Life)	Auto pickup mode is on
ItemPickupApi	Manual	Turns on Manual pickup mode	Manual pickup mode is on
UnderGroundMovementApi	On	Turns Underground Movement On	Underground movement on
UnderGroundMovementApi	Off	Turns Underground Movement Off	Underground movement off
MakeRezSetApi	Rez Set Name	Makes a rez set with the given name	Rez set with the given name created
DialogMenuStatusApi	On	Turns the dialogue menu on	Dialogue menu turned on
DialogMenuStatusApi	Off	Turns the dialogue menu off	Dialogue menu turned off

Channel -234576914 (RezBoxChannel) Instruction BoxNumber: " (string)rezBoxSetNo) - happens when show box number is clicked on the menu.

Caveat – Don't Turn Off the Menu and The API's

Be careful with turning everything off. Using the A.P.I. to turn off the Link Messages, llRegionSay messages, and the on-click menu is possible. If you do this, you will lock yourself out. The only fix for this will be to copy the items from the Covey Rez system to your inventory, then make a new Rez system and drop them in there. If you have made other scripts to work with the A.P.I, they will then need new box numbers.