THE EVERGREEN PROJECT

LIBRARY SOFTWARE CONFERENCE:

HUNGRY HUNGRY SPACE HIPPOS:

A JOURNEY FURTHER INTO THE EVER EXPANDING UNIVERSE

OF HOW HOLDS WORK IN EVERGREEN

May 24, 2021

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Hungry Hungry Space Hippos:

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>> Andrea, I need you to request to be a presenter and then I will make you one.

>> Okay so what I'm going to do is I will I had made Shari our captioner a presenter so I’m going to remove her as a presenter because let me know I don't think you will need to be a presenter.

>> Thank you everybody I'm going to go ahead and get started with my pre-presentation chat. I'm so excited to welcome you all to the kickoff of the conference, pre-conference with hungry hungry space hippos -- a journey into the ever-expanding universe of how holds work in Evergreen. I hope you are excited for a deep dive today because I think it's going to be a good one and just want to let everyone know the way we are handling the moderated sessions as we will have the session presenter with audio and video sharing and then everything will be handled through the chat and that will be pretty consistent throughout the rest of the conference. And I want to thank our sponsors in particular the platform sponsor letting us have hop in here the Evergreen community develop initiative as well as Mobius for sponsor our caption. If you would like to view the live captioning brought to us today then you can go to that link that I just put in the chat and we will transcribe as we go along and thank you to Shari was our captioner today and then the consortium of Ohio libraries is our preconference sponsor so thank you to them for sponsoring this part of the conference.

If anyone has questions definitely go ahead and put it in the chat and lacking any other questions or updates I will go ahead and hand it over to Angela Kilsdonk, Andrea Buntz Neiman and Mike Ryland for their presentation.

>> Awesome. Thank you so much Katie and Rick like to go ahead and to get started so I have the first set of slides so welcome to Hungry Hungry space hippos. A journey further dive into the ever-expanding universe of how holds work in Evergreen. This has been a labor of love on the part of Angela, Mike and myself to help at the end of this presentation you get good information and that you are not too overwhelmed by the intricacies of holds picket paragraph this is the outline of what we will cover to dabbled use of introduction. This introductory material I will go over a couple of the top holds myths and some definitions of terms we will encounter. Then we will be looking at a typical holds workflow from a title holds perspective and what it is doing in the background in Evergreen at as those various steps happen and then take a deep look into holds configuration options the different ways you can influence that and then we have got some additional resources at the end of our slides for you.

Why Hungry Hungry space hippos? Back in 2011 Mike with us today and our former colleague, Grace, gave one of the first about the very first public presentation devoted to the beautiful mystery of Evergreen holds functions and it was framed this overview of the whole functionality with a story from Disney's animal Park Safari. As the story goes the Safari group kept getting distracted by what was in the past and future and was missing what was right in front of them. At one point the guide said giraffes are in the future, we are in the now and hippos are they now. Ostriches are the past, giraffes are the future, we are in the now with the hippos. So this presentation gave us that infamous graphic that most of us know which is a classic but doesn't really reflect current functionality. It's been many years since the community has visited holds behavior in a comprehensive manner at a conference and a lot has changed. So we knew there was a big knowledge gap. We want to dig in deeply and give you a new overview of what is too many pretty obscure process so we want to talk about today's hippos, 2021 space hippos.

While discussing this idea -- hungry hungry space hippos was formed.

We wanted to set some managing expectations here holds her hard. This is something that is a watchword in Evergreen development and this is a lot of content so don't expect to retain it all the first time. Notice we violated one of the key presentation rules of slides which is we put a lot of text on these slides and the idea is that these are written to be used as later reference so we will mostly also be focusing on stock and generic examples for title level holds because if we run into all the different things about holds we would literally be here a week. For Q&A we are going to ask you to put questions into the chat. Their deposit certain points in the presentation and answer as many questions as we can but potentially we won't get to all of them and we really cannot answer specific configuration questions because we won't have time. So.

Top holds myths.

Myth number one, the Q position is real. We all seen the queue position at the that is canonical. It reflects the order which holder placed and may not fact be analogous to the order in which they will be filled. But this is a good thing because they are often filled in a more effective way than just the straight first in first out. First in first out is an option but not necessarily a good option for libraries acceptance and really limited cases.. The second myth is the holds pull list is canonical, static and meaningful and in actuality you think of the holds list as that Brian Greene mysteries of the universe analogy where the universe is a loaf of bread and in this case the holds potential list is the loaf of bread and the slice of the bread is space time or in this case the size of the bread is the holds pool list at a specific time in specific location when the holds pull list is run what is on that list represents what the best option to filled current action holds given the pre-existing state of all the holds. In a busy system it is likely your list might be outdated almost assumes it is printed. If you have the habit of printing out then pulling it three hours later break that habit.

Myth number 3's proximity. A lot of times people seem to think proximity means geographic distance and in Evergreen it really refers to organizational proximity is the distance between organizational units and we will get deep into this later. There ways to model different scenarios and arrangements of proximity.

Some definitions. I'm not going to read through all of these but just be aware that these are some of the concepts we will be talking about.

On this slide some terms should be familiar with you. For the most part what I want to call attention to for what we're going to talk about today is or unit organization unit, O.U. is a specific consortium, every system library branch. YAOUS stands for yet another org unit setting. Slang for library settings and the plural is YAOUSen and as mentioned in the previous slide there's also proximity which is organizational distance.

And here is a little chart where the hippo is is our home library and the red numbers are showing the proximity the default proximity between each of the other locations so you are counting both up and down the org tree and we will come back to this graphic when we talk by different ways to adjust that but this is what an adjusted proximity looks like by itself.

For hold types we will mostly be talking about title holds today. For our purposes you can think of better recordholder is making the universe of potential copies bigger and then the other types of nontitle holds making the potential copies the universal potential copies smaller including several that are for one specific copy. We will talk briefly about force and recall especial hold types and in the code column that is if you are looking in the interface there is a hold type column that has a a one letter code that's all of those map to. Again some are definitely future reference slides.

There is hold states so these are the different states that a hold can be in. We will for most of today we will talk about targeting and capturing so the key point here is to remember that targeted hold is Evergreen has identified an item that could potentially fill the hold and the captured hold as an item has been scanned in and assigned to a specific hold.

And finally system related holds info. You hear us talk about the potentials list which is also known as hold copy map. This is given a set of rules a list of items that can possibly fill a hole to. There is a partner list but we realize there really was not a term so we invented one and decided to call it the candidate holds list. The holds view of that same old copy map so given a set of rules and checks the candidate holds list is a list of holds that an item can possibly fill. The holds pull list is a subset. Best hold selection sort order is a set of rules that Evergreen uses to figure out the best item for a hole to fill and we will talk about this extensively later. H protection keeps new items local as defined by proximity for a certain period of time so this way keep new items close to home and opportunistic capture. Of an item is checked in at an Evergreen location and can fill a local holder the item in hand people you have in hand will fill the hold even if another item is already targeted for that hold and that is something people can sometimes get confused about but this is another way that Evergreen is always looking for the best copy to fill the hold.

For best hold selection sort order the really short version of this is that it is answering the question what is important to your library when ordering as in arranging putting holes in order to be filled? So this is a way that you can say it's more important for me that my patrons get copies first or that we are minimizing transits or things like that. Evergreen comes with seven preconfigured best hold orders to choose from and you can also create new ones so for those of you that are not familiar with these just as a note FIFO stands for first-in, first-out and it is an option but not necessarily always the best option for sorting holds but it is there.

Let's go ahead and handed over now to Mike to talk about hold workflow.

>> Actually I think they’re going to go over to me next -- good morning everyone.

>> Sorry.

>> That's okay. Alright so we are going to walk through basic hold workflow since this is where we going to start get into it. Going to look at placing a hold, targeting or crating potentials list, the pull list and we will capture and each step of the way we are what you take a deep dive into what exactly Evergreen is doing and crosschecking to determine which items are eligible to fill holds and which hold is the best to fill with a particular item.

There are a lot of configuration options that affect holds in Evergreen so one of our goals for this presentation is to identify and clarify which configuration options are coming into play at each step of the holds process. These next few slides are going to focus on the workflow and then the next section of this presentation will cover all those configure configuration options more detail.

We are taking a look at the very beginning placing a hold we want to know what is Evergreen actually doing when a user clicks place hold? We have got some diagrams to walk through together today along with a lot of text. Look at the diagrams with me today and then if you come back to the slides later on that text is there for you to reference.

If we start at the hippo the hold is requested. At this point, Evergreen wants to determine as quickly as possible whether the hold to be placed because we need to give the user right away and that instant is confirmation of whether the hold can be placed or not so to do this, Evergreen is going to look for just one item that could fill that hold. We don't need to know the best item to Filip we just want to know that an item exists and is eligible to fill the hold.

The first step that hold place button is clicked. Evergreen is going to identify all the possible items that could fill the hold and that takes us to this offshoot of the diagram on the right-hand side. Here Evergreen is looking at boundaries both hard and soft boundaries any that might be set in this library settings and these boundaries restrict where Evergreen should look for items that are eligible so they might tell Evergreen to stop at the branch or the system or say it's okay to look out to the entire consortium. I'm going to take all of those items and order them by proximity. It's going to order them from nearest to furthest away based on proximity and so we have a proximity order list of all the items.

Coming back to the main diagram Evergreen is going to then take that ordered list and test each item in proximity order to determine if there is an item that could fill the hold. That takes us into the loop here. At this point in the workflow once Evergreen finds a single item that could fill that hold, it's going to report back to the user that yes your hold has been placed. If it does not find an item or let's say the first item it tests is not eligible it just goes around test each item in the list. If it doesn't find one it tells the user that they cannot place that hold for whatever reason.

At this step just when the users waiting for that feedback the big question for us is what exactly is Evergreen checking to determine if an item is eligible to fill that hold?

So there is a variety of criteria that Evergreen is checking into their is a function called action hold request permit test that it runs to test a variety of criteria. It looks that things related to the patron, the items as well as hold policy tests. So with these next few slides we are going to look at everything that is being checked and these are important because this is actually the same eligibility check that Evergreen is going to use at the different steps in this process. So when we create the potentials list and when we capture items for holds anytime Evergreen is checking whether items are eligible is going to go through the same checks that we are going to look at right now.

First we have the patron test. Evergreen does some basic checking. Is the patron account for which the hold is being placed exist? Is it still there? It will look at factors such as whether the patron is barred or if they have a penalty -- checks whether the patron is eligible to place the hold.

After that we can think about a variety of item eligibility tests or item tests. Again does the item being checked exist? Evergreen will also check the item is marked as holdable. It will also look at the status and the shelving locations that the item is in so it's checking for that information in the item record and also crosschecking against the configurations for the status and the shelving location. We want to see if that particular status and shelving location is configured to be holdable. It will also check for age protection on the item to see if the transit to fill the hold is needed. Edible look at the library setting called skip four-holed targeting to see if the circulating library has set that to true. If it's true we would want to skip those items. And they would not be eligible.

And lastly Evergreen also checks hold policies to determine if an item can fill the hold being placed pics it will look for hold policy that matches the transaction, if it finds one it tested that policy allows holds. If the policy has Max hold set within it it will also check to see if the patron has reached that number of Max holds already for the given policy. And it will also check to see if the item could transit to fill the hold based on the policy.

So all of these things related to the patron of the item and behold policies are all being tested in the instant that the whole displaced just to determine if a single item exists that could fill a hold to give the patron that positive confirmation that their hold was placed or that it cannot.

At this point we click place hold our patron see that the whole displaced and they are all good.

Still more to do on the Evergreen side though. So next we look at targeting and the potentials list. And our question here is how does Evergreen identify which items can fill this hold?

We have another diagram and this is going to walk us through how Evergreen creates the potentials list. So our goal here for Evergreen is to identify all the items that could fill a hold. And Evergreen is going to go through the same process we just discussed when that hold was placed. However, this point Evergreen wants to build up a list of all of the items that could fill the hold versus just trying to quickly verify one item for hold eligibility.

So we really have the same process. Hold targeting is triggered. Evergreen goes through and identifies all the potential items. It looks at the boundaries again and of the proximities and order all of the items by proximity. And then it is going to test all of those items in proximity order to create the potentials list. So it grabs from the first proximity level, Evergreen is going to grab an item and test it. It runs those same eligibility checks and if determined to be eligible it gets added to the potentials list. And Evergreen goes through and tests all of the items to determine each item that should go on that potentials list.

In the end of this process we have our potentials list which Andrea mentioned but you will also see that referred to as the holds [voice dropped off indiscernible]

At this point with that potentials list we know which items can fill the hold we have got the pull list so how does Evergreen decide which items to place on that list?

With this diagram we are starting from where we left off on the last one we have our full potentials list. Evergreen source those items by proximity and it starts by taking the item or items with the closest proximity. From that group is going to select a random item and it's going to perform a couple of tests. The first with over to the right-hand side is it checks to see the item is in a status that is considered available. So in the item status configuration interface the server administration if that is available checkbox for each of our statuses so we can determine if items in those statuses are available to fill holds even if it's not in the status that is called available. So it checks for that. If the item passes that test the statuses available equivalent then it goes to the next test and check to see if that item is already targeted for another hold. If not if it passes both of those tests then that item is targeted for the pull list and that's what we see in the pull list. If the item fails either those tests Evergreen will go back and check to see if there are more items. In the same proximity group or level. If there are it will grab another item and go through the same process again until it finds an item to put on the pull list. If there are no more items in that proximity level Evergreen will then check to see if there are items and any additional approximate levels that are further away so many wise.

If there are, then it will take that group of items and perform the same test for that proximity level looking for an item that is in an available equivalent status and that is not already targeted. If it does not find one, if it does not find any item that passes those tests that is when the hold is left untargeted and we will still see it in the pull list but there is no item checked so the target time is recorded So we know when Evergreen checked to fill behold.

There are a few pieces of -- we want to pass on to help us understand what we are seeing in this interface. The pull list is not static it essentially is a living document and can change due to a variety of factors. When an item is targeted for wholeness not locked into filling any specific hold until the item is actually captured for one exception or force recalled holes in those cases those holes are placed on a specific item otherwise. That targeted item can and likely will change over time.

Certain actions will result the pull list been shuffled such as when a new hold is placed. It could be when one hold captures another holds target. Manual retargeting by a staff member and then regular holes retargeting inflow will also potentially cause the pull list to change. A full potentials list really is a better representation of which items can fill a hold. The pull list itself is just a slice or view of that potentials list at the time it's viewed.

Well we are talking about targeting let's talk about retargeting as well because it is happening on a regular basis.

Review when Evergreen read targets we did a little recap of that. One important thing to note is that when pulls are retargeted they will be retargeted in the order they are placed so if we have 10 holds and holds one through six have been retargeted, holds 7-10 will be the next up to be retargeted they will need to be retargeted before hold number one is retargeted. So Evergreen is working down the list. Another thing to note is that if there are more holds placed on a title than there are items then the same item they show up on the pull list again even after retargeting because it is the only one that is fully available.

What does Evergreen actually do during the retargeting process? It records a few pieces of information. It records the last time behold was targeted. The item and the circulate library of that item. That was just targeted. And also records the failed time which is when the item was untargeted and they moved onto the next item.

Evergreen then updates the potentials list and identifies new item to target for the pull list so goes through the same process again.

So that takes us part of the way through our workflow and we know we just went through a lot of information so we want to pause about five minutes for any questions. So I haven't had my eye on the chat so let's see.

>> There is a couple in the chat box.

>> I will read these for anyone not watching the chat so they will be in the transcription as well. April asks how it went does Evergreen consider the hold policy weight and then she talks about how that happens in her consortium with newly migrated libraries. And then the second question is during initial, can hold be placed checks is there any checking evaluation of circ eligibility?

>> I will take the second one first since it is easier. Thank you Jeremy. There are no circulation specific tests going on during the can hold be placed. There is a column on the hold matrix matchpoint table that is meant to be able to do this but it is not exposed through the interface and we will be talking more about that at the very end of the presentation.

April for the policy weights, those are probably at least one maybe two preconference sessions of their own. But the hold policy weights are taken into account. The details of how those work it is nuanced and would take more time than we have available today to go into very deeply. But there are also ancillary settings including some old settings that really should just be pruned out of Evergreen and tell your that cannot interact with the policy weight mechanisms and cause them to behave in ways that they would not were those settings alter settings not set now. The specifics of your consortium it's hard to say exactly what all the details are or what all the behaviors would be without knowing all of the details of yours but that would be a great follow-up discussion perhaps on the mailing list or a development meeting and I would encourage you to bring it to one of those forums.

>> We had another question or I guess comment which is at the initial there is an item check in 363 I'm seeing the placeholder option for titles with no copies. Ends with high-level hold has no copies silence fail. And I'm seeing when manually retargeting a hold, what conditions would allow Evergreen to successfully abandon its original target copy to look for a new one?

>> Let me think for a moment on the first one. Lindsay I do not have an answer for you off the top of my head on the high-level holds. No obvious -- I would need to go back and check the code and I've been told in no uncertain terms by Andrea that I'm not allowed to do that to do that live during the presentation.

>> That is very true.

>> Let's see Keith, manually retargeting what conditions would allow Evergreen to abandon its original target? The most important condition would be there is another copy that no other hold is targeted and that that copy is within the range of the requested hold for all of the various configuration settings including boundaries and transit distances and things like that. So we would have to look at a specific the specific instance and urge know for sure but having more copies would definitely allow that to happen.

>> Thanks everyone for the great questions we are going to move back to the slides and we will be pausing additional points in time for more questions.

>> I will stick with you for a few more minutes thank you, Andrea and Angela. And now we're going to talk about the next part of the process of holes which is pulled capture. This is where Evergreen determines which hold them item should fill when an item is scanned. The recently separated hold targeting from hold capture is because the hold targeting process up to the point of targeting and the pull list is from the point of view of a hold looking at many copies. This is the point of view of a copy looking at many holds. So the capture process is the checking interface. Those are entirely equivalent with regard to what Evergreen does on the back end.

when an item is scanned at hold capture or check and we first look at the hold copy map to find all of the potential holds this item could fill that is the candidate hold list. We discussed earlier that that is a newly minted term just for you at this presentation. We take a look at the copy to determine and the pickup library that we are acting rather the scan library we are acting at and you look up the best hold selection. This is the cornerstone of figuring out which holder going to fill with this copy. We use the best hold selection sort order configuration that was specified for the context library and we sort all the hold on the candidate hold list by that by the best hold.

And then we look at each hold in turn. Each hold we perform a test of eligibility. Can this whole be filled by this copy. A lot of the tests we already performed but we are going back and making sure at this time when the item is scanned can the item fill that hold and if it can fill that holder then we are done we have checked one hold we have very quickly returned to the user and we then take a look and see whether or not where we are standing is the pickup library for the hold. If it is then we capture we already capture the item for the holes we tell the staff member to place the item on the hold shelf and we move on. However if we are not at the pickup library for the holds, then we will need to put the item into transit to the pickup library and let staff know about that. If when we were checking whether or not this hold can capture this item and we decided that it cannot then we go back to the next hold in line and perform the eligibility checks again. We will check up to 100 holds in this process. That is a limit in the code intended to keep the check in process from stalling when the staff member standing there at the desk and having check in take 10 or more seconds to proceed. But the best hold selection sort order is intended to put more likely hold the front of the list so that we are in fact, the best hold selection sort order is the intent is to make sure that items that are rather holds that this item could fill will be at the front of the line for the test the tests we are going to apply and we will catch one very early.

And then just to reiterate this is the most important component of hold capture, the best hold selection sort order because it is asking what is important to your library when deciding which hold to fill than a given copy in hand standing in your building. And we will be coming back to this again.

Again just to reiterate YOUR is opportunistic capture there is no such thing as capture that is specified holy by the pull list. The hold that is next to the barcode on the pull list does not necessarily will not necessarily be the hold that the item captures. The pull list is meant to get items off the shelf for capture, not to capture for a specific hold.

And again when looking at capture this is this is a process with a single copy looking at many holds in trying to determine which is the most appropriate hold to fill.

I mentioned only process under holds when looking at an item to capture a hold at scan time and stalling can impact when and where capture will happen. We will talk more about that on configurations.

And questions for capture?

>> There is one we did not quite gets with the end of the last question block which was from Jennifer what is the best process when I a pickup library needs to be changed? For that you can edit to that I think actually thank you April, and the actions menu to change the pickup library but then you should also be able to tell that specific hold to find another target and that will make it go out and look again for another copy. If a copy is already in transit when you change the pickup library it's not necessarily going to catch that midstream so sometimes changing pickup library depending where the hold is in its process is not an immediate thing. It will catch up eventually. Are there other questions?

>> There is a, I can agree with. Terran -- the new staff catalog does need human readable error messages. I agree. And Elaine is giving us some clues on the high-level copy settings. Error message. Elaine thank you I know that we will be I'm certain we will be seeing that on the mailing list and I will make a note of the parts related and the org unit skipping pieces to investigate when that comes back up. Thank you for that.

>> Any other questions before we launch into our next section? We will have another couple of seconds of question blocks coming up if we have time of the end we will absolutely take more questions at the end as well but since we are astonishingly more or less on our -- for this large logic let's keep rolling.

We are going to talk about holds configuration and holds configuration can intersect hold placement ticket intersect potentials list targeting and intersect hold capture. There are so many ways to configure holds. There are options found in global flags and in library settings otherwise known as YAOUSen and various administrative interfaces. They are not all in one place. They are not all called the same thing. Like I said they can influence the process at many different parts.

I'm going to talk about boundaries and proximity adjustments and then handed off to Angela for age protection and policies.

For boundaries, these are controlled by two YAOUSen and library settings. A herd and a soft boundary. For a hold placed at a depth of two it will move up the tree looking for a local copy of a local copy or excuse me if a local copy is not found the hold will move up the tree. You can see on the right I have the depth marked there. Looking for new copies until it hits the hard boundary. In the soft boundary saying try to keep things in this general area but you can cross this line going up the tree if you need to. The hard boundary says when looking for copies you can never cross this line even if the staff is placing a hold. So if you have the system that has wholly separate -- that don't interact you probably want to consider using hard boundaries. You want to try to keep holds down the tree first before moving up to the higher level org units that's where you would want to use a soft boundary.

And then the next configuration option is proximity adjustments. Proximity adjustment is a way to tell Evergreen to consider a location either closer or further away from another location relative their org positions. Org tree positions. We talked about -- this is a way to change adjusted proximity. Approximate can be consulted at any point in the holds process especially interacts with sort order and age protection and best hold selection. I will talk about the different kinds of adjustment which are absolutely, relative and just so one of the hardest things to internalize for me was each individual adjustment only goes in one direction so if you need two locations to be relatively closer to each other you need to set up in both directions see need to make a set for pickup library A and pickup library B. This is located

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You count each step up and down the org tree so for a hold this is based on pickup library so for a whole being picked up you can see that each the red numbers indicate how far by unadjusted proximity each of those locations are from each other so when Angela and Mike were talk about ordering by proximity this is that unadjusted proximity. So based on distance from pickup library.

The first way to adjust to this is an absolute adjustment and there's only a single absolute adjustment that will be consulted when evaluating holds. Absolute adjustment is effectively replacing the unadjusted proximity you saw on the previous slide and giving it a new baseline value. In the next slide you'll see where in the admin interface where you can figure this there is a position field that tells Evergreen the order of absolute adjustments to be applied in than the lowest numbered absolute adjustments will be used if they are multiple matching adjustments. So a use case for this is if you have a direct courier between one and two you want to say one is equal that distance equals one group C would create an absolute adjustment of one for items that are at one with a pickup library of two and this means that all else being equal one items will be targeted as often as the other proximity of the distant the single distant items in your group.

That is how this looks in the interface. You've checked I've checked the absolute adjustment box and said my hold pickup libraries PR-2 the owning libraries be our one and the position is zero and the proximity adjustment is one. You can see the record -- the screenshot on the left you can also put things in here like circa modifier, copy location, hold request library. There are lots of ways to instruct Evergreen to use proximity adjustments. For simplicity we did this example but it's all the same thing that he is replacing the default proximity and saying these two organizations are now this distance apart which other. In this case that puts number one since we said it has a proximate have one for all holes picked up at number two that every thing that dashed red circle has the same relative proximity or the same proximity.

There is also a relative proximity adjustment so absolute says this is your new distance relative proximity says increase or decrease the distance from A to B a positive level move it farther away and multiple adjustments are additive so unlike relative or absolute proximity can have several of them and therefore the position field is ignored it still thinks it is relevant that is a bug we found while making this presentation. That we will file a launchpad for but you have to enter something into the position field but it's effectively [voice dropping off].

We would want to target their items relatively less often for pickup at number 2 so -- we give them a relative proximity a +2 which means there effective distance now from number 2 is three so that has the effect in terms of targeting pushing them a bit further away. And you see that is how the configuration is on the left to result in the org tree that is showing on the right. And I think that is back to you.

>> Age protection is also taken into account at the time of org placement. It is a time and location fix configurations over Liburd that share materials within a multi-branch system or a multi-Library Consortium age protection allows you to keep new items at home the items only library for specific periods of time to serve that library patrons first when that item is new. That can be calculated from the items creation date and that is the default behavior in Evergreen. It also configure that time from the item active date and that is the date at which an item is first placed into a status that is considered active such as the available status. So whether you want to use the creation date or the item active date that can be set in library settings. You can also configure Evergreen to take the proximity adjustments that Andrea was just discussing into account when determining which each protection. This is relatively new but a really really good addition. You only need to use this though if you are using custom proximity adjustments like we just saw.

The age protection rules are created in the module under server admin and once you have those rules a specific rule can be applied or set in an item record to apply to a specific item.

Evergreen has two stock age protection rules you can also create custom protection rules. But the two stock once we have three-month and six-month. The three-month has allowed proximity of zero so this means that as your items can only fill holds where the pickup libraries the same as the item owning library or the first three months of that items life at the library based on date of activation whatever you chose.

Default behavior for the six-month option it has an allowed proximity of two and so that is the diagram we are looking at here. That means that items the new items can only fill holds where the pickup library is essentially anywhere within the system that the owning library belongs. Belongs to. Now this could be the owning library itself. It could also be the parent org unit and the child org units or the sibling org units so anywhere within that system for the first six months of its life.

Moving on to hold policies this will be an overview because that could be a two hour presentation just on their own. But hold policies are the rules that are configured in Evergreen to define who can place holds in which materials. When we were looking at the workflow earlier we saw that these hold policies are tested during each step of that process to ensure that that hold can be placed. The hold policy the final hold policy that is used for transaction is selected when the item is captured to fill a hold. And our hold policies can be based on a variety of different criteria related to our items, our users and location-based information as well. The specifics of the policies depend on your library policies.

We have the hold policies interface found under local administration. This is a screenshot of that but notice at the top you also see the hold policies referred to in some places as hold matrix matchpoint configurations.

This is where it is set in the policies but for today I want to talk about how hold policies are actually selected. How does Evergreen decide which policy to use for a given hold? Evergreen has a feature called hold matchpoint weights which are the rules that Evergreen uses to determine which hold policy is the best match for a given hold. Depend on your hold policies are set up it's very likely that there will actually be multiple hold policies that match a specific hold that is being placed. For example, we might have an adult patron and the permission group placing hold on a book. Your library may have a policy the adult patron permission group placing a hold -- in this transaction we match that policy. You may also have a generic catchall policy for adult permission group placing holds on any materials and technically this transaction the adult patron placing hold on a book it matches both of those policies. So we need to give Evergreen a way to decide which policy is the better match and uses these hold match weights to score and uses the score to determine the best policy to use for the transaction.

So the hold matchpoint weights are configured in server administration and on this slide on the right-hand side we have just a screenshot of the default weights. Evergreen does have four stock hold matchpoint weights sorry I moving to the center of the slide here but there is the default which prioritizes item ownership and patron location. There's item owner first, and all equal, user before requester. You would look at the default weights. Each field you see here represents a field in the hold policies and we assign these fields in numeric value where the higher the number the more weight or importance that field has when evaluating the hold policies.

We can create custom weights but we do recommend trying the stock options that we have first. If you do try creating custom weights should always do that you tested out. We also recommend you are not modify stock weights but create a new one and test using that. There's nothing worse than changing the default rates and forgetting you change them and you no longer know what the defaults are. So this is the interface where the weights are actually configured. Again the higher the number the more weight so here requested permission group has the most weight.

There is another server administration interface called weights association and this is where your library selects which of those hold matchpoint weight rules you want to use at your library to evaluate and reply to hold transactions. The weight rule is set per org unit so this could be set at the consortium level and - inheritance does apply here so if you said at the consortium level it will apply to all the libraries in your Evergreen system. Could also be set at the system level or the library, branch level.

If you look at your Evergreen system and look at the weights association interface and you don't see anything set there that is okay. That means you are using the default weights that is the default. So the weights association is where you select -- the list you want Evergreen to use to evaluate your policy.

And that takes us to another question break.

>> I wanted to mention a couple of things and drop in couple promotions for other sessions because I'm a networker. There is a conversation Jeremy Miller has a bug that concerns the recharter behavior when a patron changes the pickup library and that is a launchpad bug 1866667 . There is a session on that on Thursday at 1 PM in track 2 and there was also a question specifically about the NC cardinal proximity settings. Wanted to note that they are actually presenting on how they do that specifically in North Carolina tomorrow at 4 o'clock. So those are a couple of things that came up in the chat. Here is another one. Hold placement options, which options cause related data to be stored in holds? In other words which options can be changed on the fly without the need to update data in existing holds?

>> I can grab that I will give a I will give a general answer for that one. Anything that the patron has supplied or requested that is that they have chosen different notification options those are pinned. If they made a matter record level hold request and have selected certain types formats or languages those are pinned as well.

The only thing that comes from, also the pickup library of course is pinned quickly patron or staff member would have to change that in there and go see Jeremy's bug to get more information on that but there are two fields on the hold that are set during the initial targeting that stick with that hold for its lifetime and changing policies won't change, won't change that for a specific given hold for its lifetime and that is the selection O.U. which is the same thing in all cases unless you're doing something special in the database as the pickup library. And that specifies which library we're going to start looking for comps at.

The other one is selection depth and that is set by the first run of the target based on how high up the tree the charter headed look for least one hold copy and the, and where a soft boundary was set. If there is a hardbound reset that hold gets the hard boundary period if there is no soft boundary. But if there is a soft boundary set no hard boundary or the hard boundary is higher up the tree, then the soft boundary, then selection depth that it floated up to if it happened to cross the soft boundary on its way up the tree, that will be recorded for that hold and that hold will not look further than that range for its lifetime. Other holds if you change the soft boundary setting come other holds that come after that setting change will be changed.

Otherwise, it is all up to things that the staff member if it was a staff placed hold or the patron, if it's a patron placed hold supplied at the very beginning of the hold lifecycle. And policies can change underneath it and indeed impact which items are considered as potential item for that hold. On future retargeting.

I did want to mention that the short answer to the question about whether or not Evergreen can see proximity in the case of Hendersonville versus Raleigh the short answer is yes using proximity adjustment. That is going to let you use a best holds selection sort order that considers adjusted proximity and have items from adjusted closer locations more likely be the hold captured item or the capture item for holds across those two systems that are configured to act like they are closer together.

So it can be done.

Any other questions on the section? And Andrea and Angela if I have said something you know to be false please jump in and let me know.

>> There was one last from Jeremy. Jeremy you can model geographic proximity with relative and absolute proximity adjustments but I do not recall hearing about it an actual. There is a geographical proximity sort for the OPAC which may be what you are thinking about that when and with, either -- that is where you can sort copies based on from the OPAC when you're looking at a record you can sort copies based on how far they are from the location you entered.

>> We have considered using a service to enable geographic proximity calculations between locations but --

>> That seems like that is what Benjamin Murphy had pointed out that we will be talking about tomorrow.

>> Perfect I spoke out of turn. I look forward to it.

>> Yeah awesome.

>> Any last questions? If not, I believe it's back to me for the beginning of the next section which is a potential list or targeting time options.

We will talk about three the first is weighting this is different from all the others in Evergreen of course the other hold related weighting that we been talking about already. Their search related. Weighting is overloaded term in Evergreen but this is this allows you to determine at targeting time how likely it is a library will be the target of a specific hold by allowing you to inflate its number of copies that get on the potential list during the selection process, during the random item selection process. It is controlled by a YAOUS, target weight and this does both physically and logically it supplies the number of times that a specific org unit copies show up on the list, only random ordered list of items for a specific proximity when we are going through the list of proximities to find the closest copies for targeting so again we don't use all the selection sort order complicated algorithm to get an item into the pull list. Just look for the closest copy, the closest adjusted proximity copy. But if you have a large library and you want to make sure that all your, that the vast majority of your holds are filled by that large library because you have very little transit coverage for your satellite small satellite libraries you can increase the weight of that large branch so that it's copies are on that list multiple times giving them a higher possibility being selected at random for any given hold. Or if you do have great coverage you can increase the apparent size of small branches and make them as likely as the large branch to show up as holding the targeted item for a given hold.

Related to weighting but having to do with rather having to do with how many times we look at each library is looping. Looping will happen generally if you have a setting for the org unit setting maximum library target attempts. The way Evergreen calculates this is that if that setting is turned on for the pickup library then it will take all of the potential item holding libraries and try to target an item at each one before going back to any of the ones that's already targeted. So you can take it as well it is not lining them up in a specific order it is creating a checklist and the randomly selecting it is selecting items for each of the libraries that hold a copy and checking it off a temporary list. At once it has targeted an item at each of the potential item holding libraries, at least, in that round, edit check them all off that temporary list, it forgets about that list and starts over with a new checklist and it will do another round of attempting to find an item at each library on the list. And it will do that up to the maximum library target attempts number of cycles.

And finally we have a settings control whether or not your library will have an item targeted for holds for any colds when it is closed. There are two settings that control this. By default Evergreen is not target libraries that are closed are items that are at libraries owned by libraries that are closed. But you can use these two settings and these two settings are not overlapping. The first setting is target copies for holds even if copy circ is closed. That basically says if I hold an item and but I'm closed still include me in the list of libraries where we will attempt to target directly the item and put it on a pull list. You would use this in situations where were having long a long targeting interval and libraries are closed across that interval. You have libraries that are open only open Monday, Wednesday, Friday but you have a three day retargeting interval and want to allow them to be targeted on Tuesdays so if they can come in Wednesday and print the pull list and grab copies.

Then there is a separate setting target copies for hold even if copy circ is closed if that's the pickup. This is likely previous setting discuss but only takes effect if the library in question is the pickup library for that particular hold. You not have have the first setting turned on in order to use the second setting or vice versa. They are separate.

Let me look Jeremy thank you for the information we will probably follow-up in our next question block that as well. But you're not there yet. I will handed over to Angela to talk more about our favorite setting.

>> Thanks Mike. Next we're going to take a look at the configuration options that affect hold capture. So here you're going to do a deep dive into best told selection sort order. Will recap those proximity adjustments again because they come into play here as well and also look at how stalling can affect capture.

Because we have taken this presentation by looking at the different steps of the holds process our slides are hippo coated not just to be cute.anytime in the slide you see that hippo that means is a best hold selection sort order so later on coming back to the slides for reference want to see all the different places sort order comes into play you can look for the hippo and that may help you find the slide.

We already know from previous slides that best full selection sort orders used by Evergreen to determine which is the best hold to fill with a particular item when that item is scanned and captured. Let's talk more about the criteria that Evergreen uses to select four-holed and how they are configured.

This is our configure interface or best hold selection sort order edits found in local administration just like most admin interfaces you click on each row to reveal the sort order and make any changes to it.

Evergreen does come preconfigured with seven stock sort orders to choose from and as we mentioned you can also create custom best hold selection sort orders. Is good to test the stock once first to see if they will do what you want before creating new ones.

We do have two main categories of sort orders we have traditional and FIFO with variations for each for prioritizing holds for your patrons.

Within those two main categories traditional prioritizes holds rate capture library is the same as the pickup library and the goal of the traditional sort order is to reduce transits of materials and fill holds as quickly and efficiently as possible to get those materials to patrons as quickly as possible. This means that holes are not filled in the order that they were placed. Traditional is the default sort order in Evergreen so if you go into the library settings and you check the best hold selection sort or just see what you are using them if you don't see anything there that means you are using traditional. It is the default used even if nothing is set in that setting.

FIFO stands for first in first out and a prioritizes the hold request time and it will fill holds in the order of the request time so this can increase the transit of materials and slow down holds.

We have all of those holds go home variations and sort orders to choose from as well. These sort orders are prioritize holds for patrons whom whose home libraries the same as the holds lending library. The can be used with traditional or FIFO. FIFO this allows her to be out of the order they were placed because we will prioritize holds of the patron library.

So the holds go home option, the holds go home sort order will always prioritize holds that had been placed by patrons at the items owning library so when an item is captured if there is a hold that exists at that items owning library it will always go in transit back to its owning library to filled that hold. Even if there's a whole that the capture library that could've filled more quickly which is what we would expect with traditional sort order. And even if the patron at the home iberet the owning library is not the next person in line which is what we would typically expect with FIFO. Soke braches those traditional it breaks the stock expectations for what those two sort orders do.

The holds go home sort order works in a similar way but it is time-based so if you use this option it looks at the interval that is set in the library setting called Max foreign circulation time. Say Max foreign's relation time is set to three months that means that items can transit anywhere in your system or consortium for three months to fill holds outside of its owning library. After three months though that item has not filled a hold for its owning library patrons within those three months then that item will transit back to its owning library to fill a hold for an owning library patron so we let that item holds anywhere for a set period of time that we do want to pull it back to the owning library to make sure that the owning library patrons are getting access to those materials.

There is a relatively new option for sort order as well which is traditional with holds Chase home patrons. This prioritizes holds whose holding libraries the same as the owning library regardless of the pickup library they have selected for their particular hold. So this sort order may be useful for library systems that resource share and a lot of patrons can pick up holds any branch or library within the resource sharing system but they want to ensure that their items are filling holds for their patrons first regardless of where the patron wants to pick those materials up.

We have a screenshot of the interface for a sort order. This is the traditional sort order and in this interface we can bring which criteria are most important for your library when looking at holes in determining the order they should be filled. This interface the lower the number the more important their criteria. If we have number one adjusted capture location to pick up library that is saying that is the first criteria we want to look at and sort by. Note that not all criteria need to be used we don't need a number in each fields. Some fields will be left empty and another important note is that the hold request time really is the tiebreaker for sorting calls it is the final ranking criteria for any sort order once we get down to sorting holes by request time there is nothing else after that that we can use to sort.

Each field we have a very wordy slide that describes what each of them are looking at I'm not going to read this but hopefully it is here for reference later on we do have a variety of different proximity measurements that can be used for calculation sort order so we have things like capture library to pick up library proximity. Those would be taking any proximity adjustments into account.

We also have things like hold mind state that is look at whether the whole dismiss that to the top of the Q and that is something that staff can do manually in a staff interface. We also have hold priority which looked at the hold priority field and permission groups we will talk more about that in a moment. We have that hold request time which is that final sort and criteria.

Let's look at how sort order works and we have an example here that we can walk through. We have a sample best hold selection sort order that will rank holds by cut in line whether the holder been pushed to the top of the queue. It will then look at adjusted circulation elaborate to pick up library proximity and lastly it will look at the request time. In this example in this diagram we have an item that is being captured. Evergreen finds it can fill these seven candidate holds and we're going to use this best hold selection sort order to determine which is the best hold to fill with the item.

We started taking that first criteria cut line edit sorts the holds based on that information. In this example cut line, Evergreen has identified two holds that a been pushed to the top of the holds queue based on that we can tell that holds B and C have priority due to their cutline status. They are better holes to fill with this item. However, we don't know between B and C which is a better holes and we also don't know how to rank those other five so for that we go to the next criteria in the sort order and here we are looking at proximity so Evergreen identifies the proximate or for the holds and sorts them based on that proximity. Note that this is nested so the holes are sorted by proximity within the order that was previously established by the cutline criteria. So for the two holds that do have the cutline status, hold B has proximity of zero and hold C has proximity of 2 so based on cutline and proximity be can tell that hold the B is the best hold to fill. Hold C is second and going further down looking at proximity we can also see that within the group of hold does not have cutline, hold G is only one - the has a proximity of zero so that is the third best hold to fill. We can also tell that after that it will be either hold E or F they both have they both have proximate of two but beyond that we still know which would be better hold to fill and after that we would look at the proximity holds A and D within those two we also still don't know which would be better to fill. We need a tiebreaker which is the requested time and again -- for the request time if we are looking at hold F and E we can see in this example hold F was placed before hold E so their order has switched they would be filled in that order and hold D was placed before hold a so that gives us within proximity level 4.

Based on that best hold selection sort or looking at cut

first, proximity second and request time third we have the final hold order of capture time here.

>> Thanks Angela.

>> I think it's still me.

>> Is it? I'm bad at reading the speaker chart I'm sorry.

>> So when we were looking at all those criteria for the best hold selection sort orders one of those was group priority and that field is referencing the permission group interface and server admin. And of the actions we see in the configuration there is hold priority and this just tells Evergreen to prioritize certain permission groups for hold fulfillment. The lower the number the higher priority so if you wanted to give preference to certain patron groups to have their holds filled first you would probably just bundle up all the other groups hold priority.

Now over to Andrea.

>> Now it's my turn. All right. This is one of those times I feel I need a third monitor but back to proximity adjustment. As Angela was talking about during best hold selection sort order there are a few different ways in which best hold section sort order looks at adjustive proximity and default and adjusted proximity so at the top of the slide is a quick reminder of what those different terms are and during capture you can consider any of those any or all of those four criteria these are all weighted so if you want to set one of these to be more important and the others to be less important you would do that and the other numerical -- best selection sort order. That is just a reminder of how proximity adjustment when you have made these changes telling Evergreen to consider locations closer or farther away that is how they will intersect with best hold selection sort order.

And then, another option for the potentials list in targeting time is stalling which is controlled by a YAOUS owned the pickup library and soft stalling interval which tells of graduate however many number of days you put in that setting. Evergreen will wait before it allows opportunistic capture any library other than the pickup library so this is useful if you have a lot of copies and a lot of locations but only a few holds. So let's say you set soft stalling to be three days that was Evergreen will wait three days before capture an item that is not been specifically targeted or is not the pickup location so ineffective would give that the people give that pickup location more time to fill that hold either from the pull list or from opportunistic capture.

And I think that brings us up to our next questions block. I tried to grab a bunch of them off the chat while you and Mike were speaking and now I lost that. There it is. So in order, Michelle asked we have used existing options for closed libraries but often had the need to prevent holds for pickup at the closed libraries from capturing and traveling to the closed libraries are there any options to prevent capture for pickup at the closed library?

>> I did answer that in chat but I will repeat the short answer is no there is no way to temporarily keep in some item from being captured for a hold when the pickup library is closed. But that does not seem to be a particularly large development so that might be something to bring up at a development meeting or talk to your friendly local developer about or nonlocal Andrea? Marge catalogued

>> That is finished with that one is going to move onto the next one which is from April is the exact what is the exact criteria for traditional -- I have to look at the screenshot we took but it's just the default weighting of yeah looks like Angela's going to back up to that slide, thank you. If you can see that so those are all ranked and so the lowest numbers the most important number so here adjusted capture location to pickup library location proximity is is that number 1? Her number 7?

>> This is number 1 to capture location and its capture lived pickup come adjusted Lib - hold priority, cut line, hold selection depth, request time.

>> We just got this out of a stock demo system so that is what the stock version of traditional is in Evergreen.

April asked she answered this in chapter, too. So previous question discussion or branch weighting can this be limited to holds where the pickup locations within the system versus having a libraries items be targeted more often to fill holds for the whole consortium? And Mike answered that in chat as the pickup library is the context or for the setting because it's the most stable and process relevant org available. Copy related orcs cannot contribute or be the context because in this stage we are still considering one hold to any copies.

>> I am not certain I actually answered your question, April. I hope I gave you some context to think about it but I think this may take more nuanced discussion to understand exactly what you are wanting to do with consortium versus local changes to behavior of the targeting time. And again this is just targeting time remember the pull list post is not canonical. I like to say the pull list is a lie. I think that Andrew and Angelo would prefer I did not say those exact words but it's meant to get an item in front of a scanner so we could get up to a patron more than this particular targeting.

Are we getting short on time?

>> We have just under one minute in this question block. Diane asked about home library which is the new the newest best hold selection sort order option. So that is going to prioritize holes for patrons whose home library so the patron home library is the same as the item owning libraries that is that top weighted BHSS criteria. So this would be usable for library systems that maybe want to prioritize their own patrons to pick up holds regardless of where that patron picks up the holds. They want their items to fill holes to prioritize holes for their patrons independent of the pickup location which the holder of the options did not allow that as, the relationship there to be an option so that is saying my patrons get my items first regardless of where my patron picks up that item.

And that is our five minutes so I will grab the rest of the questions and we will come back to them at the end.

>> And I think I start this next section. So there are a few other hold related features that we wanted to mention that don't really fall into the normal workflow so one of those are hold driven recalls. Hold driven recalls are featured a feature that allows you to recall an item from an active circulation if another hold is placed on it by another patron. So these types of recalls are typically used in academic libraries were materials are checked out for months or years at a time. This feature is entirely configured in the library settings editor. There's a group category called recalls and it has these three settings. How this works is for circulation duration that triggers a recall this is where you can set a circulation where if a whole displaced and the item in circulation has a remaining circulation duration that is greater than the length that you have set it will trigger a recall on that item. The next one truncated loan period is the adjusted loan period that will be applied to the original circulation to give that first patron enough time and notice to return the material to the library. There is a notice notifications and action triggers called item recall email notice so you can set that up to send the original patron and some email saying you have to bring this back. And the last setting is called an array of fine amount and fine interval and maximum fine. You do just that you set up a fine amount a fine interval and a maximum fine amount for that original circulation so if that original user does not return the materials in the time allotted based on that truncated loan period then they will be charged the fines that are specified here. this needs to be formatted in a specific way that you see within brackets, comma's between each field in the array.

>> We are already kind of in a bonus time a little inside baseball is that we realized we spent too much time on our front matter we would run out of time so this is the line at which we were we will catch this if we can so I'm happy that we are able to talk to you. Hopeless holds is a roughly new feature it gives hold requests that hold request is placed obvious there were valid copies available but as time went on all of those copies became that were once available either became unavailable or any potential items that could fill the hold are in a status that has been designated as hopeless prone which is a another part of this work to add the feeling item status where you could say an item in the status even if not medically hopeless is very likely to be hopeless they be long-overdue or something so let's go ahead and send any item is hopeless prone. So -- there either no items available to fill the hold requester all any items that could could fill the requester and that hopeless state and when that hopeless state field is populated puts it into the hopeless hold interface and then in the hopeless hold interface which there is it will populate this admin interface with your holds that have a hopeless state on them and then you will be able to take certain actions from this interface including transferring holds to another title. If you use acquisitions you can add them to a selection list, do an order from here. You can retrieve the patron, see if you want to contact the patron about that. So it just gives you a way to proactively manage holds that were valid at hold request time but some point or another you ran out of copies that gives you a way to fix that.

And then in the item status configuration interface this is where that new prone to hopeless hopeless prone state field has been added sequence at that independently for each of your statuses and that says even if is an item is in this copy or in this status we can consider it as a hopeless copy.

And then I think Mike you are up for some hold groups.

>> This is new in 37. I worked on this code. You can blame me. For any deficiencies or credits may for any fancy new use cases you come up with. This is hold groups or as we were calling it while in development, developing it subscription holds. The idea here is that staff can create lists of users and users can if those user lists are marked as public live staff than the patrons can see they are in such a list and opt out of them in fact and what happens with the way these patron lists are used or user lists are used is that insert interfaces in the staff place hold interface and and specialize interfaces that deal with hold groups the staff members can place a title level hold for all members all patrons that are in that particular user list or user bucket. The holds are placed all at about the same time but there is a setting that will allow those to be randomized for any given hold placement so that if you have a list of 100 users that really want to get the earliest hold on the next - estimate is been catalogued and staff has a place to make that happen, you choose your Danielle Steele holds group and place a hold brothers patrons they will be done in a random order for that particular hold so that the first person in line for the hold you request order is not always the same one every time that your book is released for that hold group. There are settings for sending notices to patrons that can trigger notification settings for sending out hold groups specific notices to patrons when they had a hold placed for them and this is available for patron level management in the other menu on the patron detail page listed under hold groups so that is where staff can remove users from groups the ability to add users to groups is in several areas one of them is in patron search. There is as I said a purpose specific interface for both managing the members of the hold groups and the placing of holds that will go out to all of the members of the group. And then the fun part there are bits and pieces of Evergreen code that either no longer do anything and they are related to holds and wanted to go through some of those. So one of them mentioned earlier and I want to come back the last question block to cover something else related to the weighting so -- I believe it was April was asking so I will come back with that in a minute but there is an adjacent setting for the hold weighting or the target weighting that is called YAOUS based target weighting that was originally intended to require you to first turn on weight-based hold targeting and then go look up the weights at we no longer do that. We just look at the weights at. So if your library has a weight it will be reflected the number of copies that are on the potentials random list for targeting rated targeting time. Hard stalling interval. When we first developed the soft stalling we thought maybe there is a mechanism that we can call hard stalling that will be similar but work differently. We decide that was not going to happen but we already created the YAOUS interval but we haven't got rid of you. Ignore that setting. There's a setting for FIFO. Don't use it please just please use the best selection hold use order. We attempted to honor your selection of that, or your use of that setting but the best hold selection sort order is the modern way to do what you want to do and it will work out better for you. You have more control and it will interact better with other libraries using other best hold selection sort orders.

>> To be extra super special clear, he's referring to the FIFO library setting. So this is in library settings where it says use FIFO true/false. Just don't use that one.

>> Please don't. And as I mentioned early on there is a stop block to users flag on the hold matrix it's possible that earlier and earlier versions of the whole the matrix configuration interface gave you access to that. The current one does not and I did not find any in a quick scan I did not find any uses of that out in the world so you can ignore that. It may be in documentation. It would be nice to able to bring that back but right now that is not accessible if it were it would stop users from gable to place holds if they have a circulation blocking penalty.

And that is it for me for my slides for this part.

>> I think I get to bring us home and we are in the home stretch so great job sticking with us. I'm really happy to see that attendee count stuck in the 60s and we didn't lose you all completely. So in conclusion yes holds are still hard and the three of us really deeply profoundly understand that even more so now than we did before. So don't if you get frustrated or find yourself not understanding things even after this there is a lot there's a lot of things that can interact with holds. However there is also a lot of ways that Evergreen default mode or stock options can handle a lot of different kinds of ways of sorting holds so maybe especially if you're in a fairly standard consortium where you are sharing things equally see if those work for you before you get into configuration. And a lot of these adjustments that we talked about they want so be could draw pictures of them we did for you but a lot of these can be very difficult to model abstractly especially when you put them in the realities of saving physical transit items like with couriers and patrons it open, closed etc. so be open to experimentation if you model something and doesn't quite work be open to adjusting that as you go.

Remember that a lot of these things we talked about we specified pretty much all the ones where they were not but a lot of times were looking at a hold-based configuration option most of the time it is considering things first from the perspective of where's that hole is going to be picked up? What is the hold pickup location? And again by default Evergreen is going to try to fill as many holes as possible as fast as possible just like the hungry hungry hippo. Sorrell comes around. Next slide. There is not a lot of community documentation out there about this stuff. I've linked here what is in the existing community documentation right now. I make no promises about the current accuracy of it but as a follow-up we are going to be attempting to put some of our content from this presentation back into the community documentation and updating that community documentation so this information is out there for all of us. A lot of the content of this presentation came directly from as transcribed by Mike and myself financially so we will make sure that makes the community documentation. And thank you for surviving this presentation. We put a link for a hippo video for you which Angela do you want to play the cute hippo video? It's very adorable.

>> I really really do.

>> This is us celebrating the end of the presentation. This is Fiona the hippo from the Cincinnati zoo. We do have just a couple minutes where we can come back to some questions but we will try to get to them quickly because we're coming up on our two hours and our faithful captioner probably wants to give her hands a break.

>> If I may I just wanted to jump back to April's question about weighting. I misunderstood what you were saying and I apologize. If the copies home libraries what determines how many times it will be listed on the potentials list during the random item selection. Now given that many set of libraries that are within a system are generally going to be at about the same proximity from any other library outside of the system. You should not need to worry too much about whether the hold is coming from outside or from inside the system because since the copy is defining, the copies is defining how many times that copy shows up on the list. It will, and it will be peered with sibling libraries running hold it will be balanced across systems for any hold regardless of where the pickup libraries that hold is so that should be the behavior you see. It should not you should not need to make a distinction with regard to the pickup library for the -- the copy multiplication setting.

>> There were there was one other question from April. If a system in the consortium are not the owning or circulation library for items does proximity say that any item in the system or consortium is equally eligible to fill the holds? That is a good question. I'm actually not sure. It does sound true to me but I'm not sure. Mike? It says -- proximity does not? This was let me scroll up so you can see it in context. It was 23 minutes ago in the chat.

>> Not, yes short answer is pretty much. If you have proximity adjustments that's where you can change that say can say two systems are closer together. And that is where you might want to use that specifically. We have two systems next to each other and are resource sharing and had the same career. Give the system-level pickup and item owning settings a shorter, give it a negative relative adjustment to bring them closer together so that they are more likely to be the supplier the mutual supplier. But like Andrea said you have to do one in each direction for pickup and owning.

>> Thank you. There is also a question from Catherine does Max foreign circulation time restart after each instance of the item going out for a hold after it is returned home?

>> Yes there are two well there are two parts to that. One is has it ever been back home and then there is has circulated at home. So and in either case it does reset so looks at the most recent time value for the last circulation when it was at its home or has ever been home the last time either circulated or transited back into. If it's a destination of a transit was the home library then received times that transit is the most recent time for the has ever been or has been back for any reason version of that.

>> I saw that you got the question about recall versus holds recall in the chats. Elizabeth asked does hopeless hold pull and suspend holds that a been suspended for a set period of time? For example a patron but they hold on something, suspense it a few years go by and never reactivate it and their privilege expiration date has long passed. As far as I know hopeless hold is only an active holds because those are the only holds there going to be actively looking forward to have copies probably in holds copy map. If Mike if you know to the contrary speak up at that is I do not think that hopeless holds considers I think it only considers active holds.

>> I believe that is correct. Suspended holds won't have their most recent potentials list flush but that does not, that's just so we can include them in sort of a queue but yes active holds of the only ones that we care about for hopeless.

>> Thank you that was my understanding as well. Last question from Diane, if you force a hold on an age protected item will behold activate when the age protection falls off? That's a good question is that an overridable events? I guess it is a hutch that work? I'm not sure how that works. [LAUGHING]. I would have to test.

>> Sorry I'm looking for that in context you were breaking up a bit Andrea.

>> It was four minutes ago from Diane.

>> Yes, Diane, if the staff member forces the whole to go through, the hold will be active the whole time adjust may not be able to capture anything until the age protection has expired on copies that would otherwise be able to fill it.

>> I want to say thank you so much to our presenters today. That was an excellent and perfect for a preconference session because it is such a deep topic and we could do a whole weekend at and not necessarily be finished so this was a delightful way to look at bats. I also want to just mention again thanks to our platform sponsor the Evergreen community development initiative and Mobius for sponsoring our captioning today which is been delightful and then the consortium of Ohio libraries for sponsoring the preconference is in general. There are a couple more bugs that were mentioned and so please feel free to scroll back up through the chat and grab those of any of those are of interest to you. The chat should not close that it should keep running through the next session in track two if anyone needs to grab those and there are, the slides I'm sure will be on the conference website with in a couple of days after we get finished. And then once they are processed the video and all the wonderful Q&A will also be hosted on YouTube and that will be linked from the conference website as well so you can come back and revisit this whenever you want. Thank you all so much for being here today.

>> Thanks everyone and thanks Katie for being such a good host.

>> We have about half an hour before the next preconference to start so take a break and we will see you back in a bit.

[End of session]