THE EVERGREEN PROJECT

MAKING THE MOST OF EVERGREEN REPORTS

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 >>JENNIFER WATSON: First, I want to thank Chris Sharp for being here this afternoon for the second session of the day, for Making the Most of Evergreen Reports. Before we get started, I'd like to take a moment from the organizing committee to say a thank you to our sponsors, conference sponsors for the entire conference, I should say, we want to thank the Evergreen Community Initiative, we want to thank Mobius for being our conference captioner, I will put a link to the captioning in the chat if you want to view that. [inaudible -- off microphone] Consortium of Ohio Libraries and we have representatives of COOL here today with us, so thank you.

I want to remind folks only the speaker will have audio and video enabled to be shared. So if you have questions, please put those in the chat box, we will be monitoring those throughout the afternoon. If you're having trouble getting in, if you can hear my voice but can't see anything, drop a note, I will be monitoring that as well. This session is being recorded, in fact it is being recorded already. Everything Chris is showing right now in his --- after the conference will be shared as well to go along with the recording. With that, I will turn things over to Chris.

 >>CHRIS SHARP: Thank you, Jennifer and thank you to everyone for being here. I'm always curious when I start these things, because I see a lot of familiar looking names here, I would say faces if we were in the same room -- but let me know in the chat if you will, kind of what you are experience is with Evergreen reports. Is this your first time doing a session like this? Are you a trainer, or are you an end user, I just want to get an idea who I'm talking to today. There are 53, currently, people that I can see counted here in the chat. Feel free, if you're willing to speak up and let me know what your, what brings you to the Reports session and what's your experience with it.

 Stuart is a repeat, a repeater. There are lots of people in the PINES libraries who come to training after training --

 >>JENNIFER WATSON: Chris, I created a simple poll, -- today.

 >>CHRIS SHARP: That's very handy, thank you. So we've got some new users, we've got people who have done this before in the past, people who want to learn more. Yeah. Okay. Yeah, Darice, what I hear a lot of the times is people who've been using Evergreen a lot of the time but reports just never make sense. And some people, [indiscernible] Bradley who know SQL, and we will talk about SQL.

 >>JENNIFER WATSON: You have at least 10 folks who have never seen a report session with you before, so you have at least 10 newbies.

 >>CHRIS SHARP: Great. That gives me an idea, it looks like we have a range of experiences and a range of interest here. It has a good idea to have an idea what you want out of the session and that helps me sort of tailor what's going on, because, as others who have seen this before can tell you, it's more or less the same presentation. But I do like to cater, or tailor it so that it can, we can get it, so it's actually useful to everybody.

 Now, before we get started with this with the actual presentation, I did want to mention I gave a link, which I'll drop in again because there's been a lot of chat sense, to this document that you can't see on my screen here that looks really tiny to you. But this is sort of the overview of what we'll be doing today.

 There is a link here on the second page that links to my test server that is running current Evergreen Master. I have the list of logins here. So, if you want to use a server that is not a production server just sort of mess around and play with reports, it's just using the test data set that we use in the development community. But you can create some --- reports to circulation --- or how many bibs you have, etc. There's just not a whole lot of stuff in there. The other thing I've added over the years, this is kind of a grown document with every session, is sort of gave you some basic paths from within the report are two things you probably need about for items in circulations and things like that. That can be added, too. But I also this morning decided that would be a good idea to add just a whole bunch of reports, schemas, basically, so you can follow these paths. PINES uses particular views that may not be available to everybody. But I did want to at least lay these out as an example of reports that we have found useful. This is basically a list of what we call our Quick Reports. That's something that we use internally, it was developed by Emerald Data Networks for us. I know there was some interest in it if you years ago in the community, but I'm not sure anybody outside of PINES adopted it. Just having, whether you're using Quick Reports or not, just having a set of canned reports that you can create and let staff use, this captures probably don't know, 90% of the actual needs that we have for reports. So hopefully this will be useful for you to have this kind of stuff. It's a broad range of areas here. I just sort of dumped them in this document. They're not in a particular order except by the report name. I can we do this if there is a better way to organize these by topic or whatever.

 Anyway, just know this is available to you. I keep this document public. Like I said, I've added to it over the years and it's basically the same session.

 I am a person who does believe that repetition is good for this sort of thing, because it's hard to learn. And if there's not a way to, you know, if you learned in one session and then just sort of go back to work and get back to what you were doing and never really use it, then you don't really get to learn it.

 Anyway, we're going to start basics, I find that sort of walking people up to the complex is a little better than diving into the scary interface the second we get started.

 So let's take a look at my super awesome presentation here. So we're going to present.

 Okay. I've been doing reports since around 2011 when a staff member left who have been the reports guru. I took that over kind of reluctantly, I definitely didn’t want to do it, I wasn't very interested in it. But I was interested in SQL. SQL is a database language that allows you to write by hand queries to the database to get information. A 10 year reports anniversary. [LAUGHS] Yes. That's right. And it was around April. So I guess it is over now, over 10 years. But I learned how to use the interface because I learned the database first. That's like no one else except a developer probably would have that, were a system administrator, would have that view in the first place. But once I understood the way the database was laid out, the interface for reports clicked for me and it made sense to me. If you're coming from the outside looking in, it's just mind-boggling. Ever since then I've been the person our consortium turns to to create report templates from scratch or things like that. Of course we do have our canned reports that I've just shown you, but there's always a special snowflake report that a library needs that we have to sort of like. Some of the more, not just this report needs to be exactly what I want rather than us using what's there. Some of them just needs that are very complex. We do have that sort of thing.

 Let's see, which for me is easier to just do that than trying to help staff with reports. Yes. That's right.

 So, I am, I guess we'll just start at the beginning. I tried to start with a place where people know, we all live in an Excel world. If you work in libraries at all, you've used a spreadsheet is not an easy way to do it. The reason it's easy and understandable if there are rows and columns that lets you put things, you can label each field. Here can be title, author, whatever, you just put these in these columns and then the values are underneath, things like that.

 Spreadsheets are great and I will walk through the entire thing I do sometimes when we pretend we are starting a business selling snow tires or whatever. But this is not really an effective way to run a business or a library or something like that, because it's only two dimensional. It's only column a, column B, etc., and you end up with a lot of repeating information and that doesn't make sense.

 The other thing is databases take, the way that databases work lacking some sort of software program is that you take a real object like I have this glass of tea here, and if a database wanted to describe what this glass of tea is, you have to have certain attributes and attributes is the term we use a lot in reports and in databases and in, if you're a cataloger, you know attributes, and it sounds like we do have several tech services cataloging people here so they will know this. We take real-life objects like books and money and people and places and make them into something that software can understand, that a database can understand.

 So to do that, we take a book, in the chat, why don't you tell me what are some attributes of this book? [LAUGHS] That is usually correct logic, Bradley, but in my case, I gave up sugar in tea a while back, so I am an un-sweet tea drinker. But when I go to other parts of the country and say I want un-sweet tea, they look at me funny. Sizes, pages, subject, pagination, type of cover, columns. So you've got some of this. Is interesting when you ask catalogers they will say pagination, subject matter. If you ask a circulation person you get title and author and maybe pub year. It's just two different views of the same thing. So we think of it as a book and we really don't have to think any further, we know what a book is. But we need to tell the database what a book is, we need to tell the database what sort of attributes we need to record for the book, what sort of metadata we need to record for the book. So you've got the title and author in the actual the pagination and everything else, the addition of all that sort of stuff. Then you have the holdings for this book, this is a cataloging term, holdings, you have a place where in the computer, you are seeking this is the item in my hand, it is an instance of this bibliographic record sitting here.

 So, what about a person? What are some attributes of a patron? Age, name, height -- I don't know if we record height -- name and address. Good. All right. Where they are a resident, where they live, exactly. Their contact information. Okay. Let's keep going. Password. Okay.

 Then, there are things in Evergreen that we have to keep track of that are not real, like, you can hold a book in your hand, you can see a person, you can be inside a building. But you can't see a circulation and you can't touch a circulation or a hold or a hold transit. Yes, the book is going on late truck somewhere, but that is not a thing. That is an action. You have to sort of figure out where you're going to start the kind of stuff.

 But what are some attributes of a circulation? When we think of a circulation, what are some things we need to keep track of? So a checkout date, how long are they getting to keep it, so, due date. Right. The user who is taking up the book, exactly, that is a key point. Some of these things you think of as being obvious. Desktop the item, right. Right. Length, location, date, transit whole yes. Sometimes, right, circulations can earn fines if someone doesn't return it. The place, Ruth, you name something that's important, too. So the circulation, I guess the best way to think of it is it's a relationship to be the person who's standing there, the building with this is happening, the item they are checking out, the time when it happened and how long they get to keep it possibly any bill that result from them not returning it back or losing it or whatever. Circulation sort of ties a bunch of that stuff together in a way that starts to give you a clue about what the database needs to know. It needs to know who is this person, what is this book, where did it happen, who's the staff member who setting there holding the book and checking it out to this young girl. Who is that? There are things like that.

 Let's see, I'm going to look at Jeremy. Yes. It sounds like Jeremy is a system administrator who knows what cron is. That is, yes. So yes, I do the same things. Sometimes you create a straight up query that will be easier than doing it in the reports interface. Do you still have a chart of what all is involved in circulation? Not exactly. Let me tell you this, if by some amazing happening we end up seeing each other in person again someday, I do this with a whiteboard. I guess I could have gotten fancy and had a whiteboard here behind me, but I'm just not that fancy. And I will draw charts and have that. It's a little hard to do on a screen like this. Try to before but it didn't work well for me and it was a very natural. Yes, I understand, I'm a visual guy too, and I like to see that.

 So Sunday, you will see me with a whiteboard. Just come find me and I will draw it on a sheet of paper for you. [LAUGHS] But yes, having a chart, actually drawing this out yourself might be useful thought exercise.

 So I mentioned that with the database, it has to keep this information in different places inside the database so they're not repeating itself over and over again. When you think of a book you're thinking of one thing that a book. But the database has to think of it as several layers. So you have the actual item copy, the call number/volume -- if that's something if you are not a cataloger and you're just not that familiar with the guts of Evergreen might be a little confusing -- but in one the call number is considered a thing, and it's sort of a holding unit I guess you could say, but all the copies get attached to. And that volume in turn is attached to the actual bib record. Catalogers understand that intuitively, because I work with every day. But if you're not a cataloger, that might sound a little bit weird.

 You have the bibliographic record. The bibliographic record itself contains a whole bunch of metadata, but it's really "expensive" force of the database to be looking things up in the bibliographic record every single time you do a search. So it's more efficient that you pull that data out to its own schema, and then when you do searches you're searching the stables and not the entire bib record and trying to find the little text string you're looking for. The circulations that are associated with a book are related to the old requests on the book. These are not the actual table names.

 The books go into transit, they are sometimes on hold when they go into transits. Where the book belongs inside the library, circulation modifier, that's an optional piece of meditator we use [indiscernible], but it gives you an item type. Which library owns the item, which library circulates the item, that's often the same thing but not always. Then, the user who created the item or edited the item last. Then, there are statistical categories. So you get an idea, this is just a book, so that one book you see here we had all these words, all of this stuff plus more is required to describe that at the database level.

 So why am I telling you all this? I am telling you all this because to create a report, you're taking a bunch of disparate data that is kind of spread out among tables and you have to figure out a way in a report to gather that data back together to do something that is coherent for you to use to report to your manager or report to your director or report to a board or at a public meeting or a legislator or someone like that.

 So while this sounds really arcane, this is vital to our jobs and our existence as libraries. We have to be able to report things. We have to be able to get this data back out and have it in a usable way.

 So, your job learning here in this session is learning what's behind reports and how reports are actually being created in the background.

 Let's see, let me see something here. Bum bum de bum... Let's do a quick poll. I'll keep talking, but Jennifer, you were able to create a poll a minute ago. If you can figure out how many people use SQL were familiar with SQL, however you want to phrase the question --

 >>JENNIFER WATSON: Sure.

 >>CHRIS SHARP: If people want to let me know if you've heard of this. Some people will and some people won't and I'll keep talking while you answer this poll. So, SQL is sometimes considered oh yeah, Rogan, ha.

 SQL is considered to be structured language or something like that. Sequel is sometimes how that is pronounced, I also say SQL and you may say tomato and I say tomato, it doesn't really matter what you call it. I know people say my SQL a lot of the time but no one says postgres sequel unless they know it's considered PostgreSQL, so it doesn't really matter. What that does is it gives you a human... squirrel, I like that. It gives you a human readable, human writable, understandable way to interact with the database. So there are things you can do... One of them, you could insert data. You can update data. You can delete data. You can do lots, you can copy things. Anyway, there are lots of things you can do with sequel/SQL. One of them is select. Select doesn't change anything. It's just like you are reading what's there, go out and get me this stuff that I now want to see. That's what I select query does. So select whatever it is you want to see.

 In this case, this will be columns that we put together from different tables most of the time, it's not just for one table.. From your chosen data sources, once you learn the database schema, which you don't have to do, but you have to learn where it is in the reporter, you can put those together, just when you're getting your data from, and that you join that probably on other tables.

 I didn't talk about keys yet, but we can get to that. And then, where those filter conditions are met. Basically you're saying, you know, select title from -- this is a fake, we'll get to real queries -- let's say select title from the graphic record where the owner is my library and the author is this. Whatever. That kind of thing. That's the example of the sort of thing you are creating. The reason I think it's important to understand the select query is it that is the basis of the user interface. When you're looking at the user interface you're like oh god, what is all this stuff? The way it works -- okay, that's another type of filter -- the way it works is you've got select is basically, what field do I want to see? That's displayed fields in the new interface. Displayed fields in the old XUL client from table. That would be your source, where am I getting my data from. Source.

 Then, where is your filters? Selecting data from tables where filters. Then, so, why are... let's get to that in a little bit. Having is another type of filter which I don't think is important to get to right now.

 I think that is the end of my presentation. Any questions so far? Let's see how you did on my poll. Okay, about half and half. That's not bad. Well, you'll just learn little bit to do. I will say, before I go any further, that the W3 schools... I'll just search it... W3schools.com has tutorials and one of them is going to be SQL. So you can just walk through this and it will teach you the basics of sequel/SQL, and it teaches you all the joins at all the stuff that we care about but we're not going to be, we're not going to be digging it all the different permutations, because this is only a two hour session, basically. [LAUGHS]

 All right. Okay. Let's move on, thank you, Jennifer. Let's move on to the interface, itself. Again, I'm using my csharp master server. You are welcome to use it, I'm going to increase my size it up. That's a little better, right. If you make your screen too big, I'm sure you've noticed, it will start destroying the design, so I going to try to keep that from happening.

 To get to the reporter, there is this reports link from the front. There's also under administration there's also Reports. I'm going to click there.

 Once you get to this area -- first of all, I will say that you need to be, you actually need to have permission to do reports. The users that I have on my document here... will increase that too...... The users I have here, these are like global and system administrators and the reasons I chose those only are those are the ones that can run reports. If you are sort of a run of the mill circ person or cataloger, generally you have to be granted specifically as an individual those permissions. Or, you just have to ask your system administrator to run the report for you. Often, because I am an system administrator, you know that your system administrator wants you to do it yourself. [LAUGHS] But you know, we're always willing to help, at least I am, I speak for myself. Not everybody.

 Right now and log in is one of the local administrators. It doesn't really matter as long as you have perms. You will see this interface. Already you're in some trouble, because you have this templates, reports, output, ah! I don't know what this is. Let's walk through it.

 You see this My Folders area. Those are *my* folders. The whole My and Your thing with computers is kind of, that's been a big argument the whole time.

 What is a template? Somebody tell me... someone is telling me they're only seeing the opening title screen, is that still true? Maybe it's just a window. Let me see if I can change. I thought it was showing my whole screen. Okay. Okay. Good. Okay.

 That's what I'm expecting to see is that. All right. Kathryn, are you able to see it now? You say okay. So there's this My Folders area, Shared Folders area. Who can tell me templates like what is a template, in general? What is a template, not necessarily a reports template. Describe something. An outline of what you want to see happening, a starter set up to plug in to. A wrapper around a query, prefabricated construct. Exactly. A guide. Yes. You can think of it as a form.

 Now, the trick is in Evergreen reports, unless somebody has done this for you…that's the only way to get attention, Benjamin, is to shout... the only way unless somebody has done it for you, you have to create the template yourself. That probably is the hurdle that we're talking about today, getting over. Because if somebody had done this for you, you would probably just use reports and you wouldn’t need a report training. So there's templates here. That's what templates means here. You have created a form for yourself or for someone else to plug in data, run the report, and it will be consistent every time and just like Elaine said, you have the same elements in a form every time you use that form. Exactly. And catalogers know about templates, too, and Elaine is definitely a cataloger.

 Reports here, you're like wait, I just clicked reports here, what does reports mean here? Reports is where you take a template you put the data in the template. That has to be saved somewhere, and this is where it is saved in this Reports area.

 Finally there is output. Output is, of course, the report results. That's what we're dealing with. Shared folders is where other people's stuff that you have access to see, which just depends on how your library is set up as to which ones you can see and who gets to share, but that's where they show up for other people.

 So when you start this interface, if you've done nothing here like I have, you're going to see these little sheet of paper icons, and those are actually folders, which is a little confusing. So we're going to click on Templates, I am going to create a folder. I'm going to just share it, I'll share it with my system. And I'll create a subfolder, and assess action succeeded.

 Now that changed to what is a folder icon. You can't do anything until you have a folder to put this stuff in, it won't let you. Reports, I'll do the same thing. Note that My same name anesthetics... well actually, it didn't keep my system. I will share it.

 And I will do the same thing here. That's interesting. You see how it troubled? Anyway. Hey, bugs! I think this will interface is due for a re-design, and I think everybody knows that.

 Now these have become folders and if you already have folders here, you now have these arrows pointing at the folder and these arrows are clickable. If you click on the arrow it will turn green, turn it down, and you will see this new sheet of paper icons again presenting an icon not sheet of paper, but this is the folder where you're actually going to work from and if you expand all of your templates and reports those are all available. I'm going to refresh for a second.

 I was going to see if anyone had shared folder yet. You can see mine if you are part of my system, on my server.

 Once you are in here, you can't do anything in report or outcome yet because you don't have any templates to run. I’m clicking on my template folder that I just created. Then you have this part of the interface, you have two options here, you can manage your table contents which is the default or you can manage the folder, a, I want to change the name of my folder or I want to not share it anymore or I went to create a subfolder which you can do it can organize, it is a good idea to be organized. But I will say this, what I usually do is I will have a folder called Chris or csharp or something like that that is just my playground. I don't ever want anybody to see this folder. Normally I would not be sharing the csharp folder. I have my own folder that I mess around with as a sandbox. I can do whatever I want to. I can junk it up however I want to. But that you have shared folders that you are that "publishing" your report, you are creating a report that you wear them sharing with other people. You don't want everybody using the same junk. Because you have to experiment with this stuff, it's not necessarily easily.

 So, you have these options here in this drop-down, you can create a new report, you can clone a report, which we'll talk about later if you know a template is not working for you or whatever, you can delete that, or no longer useful. Also you can move to another folder, so you can create a new folder and move this to another folder. If there were any templates here already, it would be showing them.

 But what I'm going to click next is Create a new template for this folder. So this is a little too big, I’m going to have to make it a little smaller until I see what I need to see. Sorry for that. You might be able to expand your screen little bit to make it bigger or look at your screen if you're following along somewhere.

 This is the scary interface that nobody likes and we're going to make this work. You will see at the top there's template name, so you can say My First Template, if you want. There is a description here. So, a meaningful description. In real life, the useful thing to put in description would be something similar to those PINES reports definitions that I output in that document that I shared. That's an exhibit, the kind of stuff I do, I kind of do a breadcrumb style way to go from the source that I've picked all the way to the column that we're going to be showing or filtering on. Okay?

 The other thing you can do is create a documentation URL. In this case, I just going to use the Evergreen website just for an example. This saves when we're done, but we're not ready yet. So you will see this there are three panes here in the middle, and one says core source and one says another nullability, we are not going to worry about nullability today, that's a little too deep to get into today, I think. These will start getting populated when we start doing things here, you will see the source drop-down I am not going to click it yet. The --- there is the display field which I showed you on the document earlier in the presentation. Then there is the filters, if you click this it will make that active and you will see this column names change. This is the basic interface. But we're going to do is we click this, and it has this drop-down with a lot of stuff that is going to look a little arcane and scary and I don't want you to feel like it is. The top section of this drop-down are called core sources the rest are, well, non-core sources. If you keep going down you will see lots of things you've never heard of and don't know what they are.

 All of these names -- there are a bunch at the end called undefined which always makes me a little nervous about what those actually are -- all of those map to either tables in the database or some sort of construct that then, itself, leads to an actual table in the database. There is an intervening layer of software that sort of in between the database and what we're seeing here called the field mapper that has all these names in there and tells you what the fields are, it defines all this stuff. Incidentally, the field mapper is where if you were to create a table in the database if you are a system administrator, if you were to create a database, that you would then with the reported to know about be able to run reports on the end users, you will be able to run the table, add the fields in the field effort that it would show up in the list. That is a cool feature and something to be able to do. But that is a different training at a different session.

 You'll see things called like classic this that and the other. A lot of these, by default, aren't hooked up, which is not ideal. There's a bug open on this and we've gone back and forth inside the bug where some of us want to remove this part and others want to add this part that this is not hooked up to anyway, I'm getting off track.

 What we're going to pick this item, we're going to pick item. Core source. We are going to pick item. Item is called copy at the database level. What I did when I clicked item, and now has this little arrow pointing at item that might be a little confusing at first. Now that that is selected, I can click on the word item. I'm not clicking the arrow yet, I'm going to click on the word item then, kaboom, this little section populates with some data. What do y'all think this is? What are these, what's this list of stuff? Fields. Attributes. Available datatypes.

 Yes, it is the fields and item table as defined by the field mapper. So we have these fields. Benjamin said a key term is data type. There are different types of data that we store in the database. And it does matter what they are, it's the reporter treats them differently depending on what they are. You'll see some with what looks like maybe a car battery but is actually calendar. That is a timestamp. You'll see this little chain looking thing here, and I'll talk about that in a second, as to what that actually means. You'll see the Roman letter A, and that means it's text. So that means that the type of data that belongs here is text, is not a number, it's not data, it's text.

 This little checkmark indicates that it's a Boolean field and Boolean, for Postgres, [sounds like] is really just true and false. If you're a symbolic logic person you know that Boolean can get super, super complicated more than true and false. But in this case it's just true/false. You will see a little pointer here under circulating library, that means organization unit that something talk about a little more in more detail. A couple more of those chain looking things. That what looks like a UPC barcode on the back of the book, but that's not the barcode. That's the ID. The barcode, incidentally, is text. So have fun with that. Then, we have a $, which that's money, right? Money in Evergreen really just means that it's a decimal point here. Let's see, then there's this little scale looking thing, that's what that supposed to be. But that's defined level. I think that's just a... maybe that's just a number? Maybe that's integer. That's what that means is editor. We should have some pop-ups that show you what that is. That would be helpful.

 The chain things are what are called links. We talked about, at the beginning, how you have to for a database to work, it has to sort of explode all the data into a bunch of different tables that are job as reports graders is to gather all that information back up and put it together. The way we put it together is we link one table to another. Underneath it all, it's being linked by ID numbers. If you're an SQL person you would call the ID from the table where you are in this case item/copy, that ID is called the primary key. Another table’s primary key is called a foreign key. So, what these links are or and other tables primary key is located. I'm probably losing you. I think it will become clear when we expand items. Remember I just clicked on the text item and to populated this. Now we're going to click on the arrow that expands this.

 So, one thing you can see right away is there's a whole bunch of new stuff over here and that's scary to everyone who has never used reports before. What we can see here is that there's [indiscernible] protection here and hey, look, there's one of those link symbols, the chain symbol is here for H hold [sounds like] protection. Call number volume is right over here. Circulation modifier. Takeoff circulation modifier is right over here. Circulation type, circulation type is right over here, are we seeing a pattern, yeah? What these are is the point in the item table where these link out to other tables. So all of these are linked sources. You can think of them as sources or tables to the item table. You will see that they also have arrows. So don't click this yet. Just as an example I will click on call number volume, I will click on the words [sounds like]. Then, the middle section here changed.

 Yeah, I get to that, Jeremy.

 Now we have a different set of data, so what is this? We have item and call number/volume is linked to item in these are the fields available to us from call number volume. So for instance, if we were trying to do a book, which is why I chose item because we know books, right? The call number, if you look down this list, it's not really text. It's going to be a number, because that link is not text. So if you click on this and thought that you were going to report out a volume or an actual call number, it wouldn't be a call number. It would be like 82314 or something like that, wouldn't make any sense to you. But, we can go to the linked table call number volume there we will find the call number label, which is actually what we are after.

 So, the arrow beside each of these things means that you can then expand those and get to these other linked tables. Then, you can expand and expand and expands and it will let you do it forever, but don't. The reason you don't want to do that is the further you go down it's creating linkages to linkages to linkages then you end up with this weird like Russian doll style report that doesn't make any sense. It will take forever and you've lost all the efficiency that you get by using a reporter. Okay. Does that answer your question, Jeremy? Is everybody with me?

 I'm open to questions, by the way, there's a Q&A feature and the open chat. I'll assume no news is good news, so you need to speak up if you have an issue.

 What are we going to do here? So why don't we do a report of, let's do a shelf list. That's probably the simplest thing we can do. You've got your circ staff is at the front desk and they're scrolling Instagram, so you know they're not busy. And you want to give them something to do. So we need to create an item list that we would then hand them to answer a list that they can go do some shelf checks or weeding or something like that. We are going to do some shelf checks. Very simple report. Yes, Keith, it goes forever. You can test it if you want to, but I think we all have better things to do. [LAUGHS].

 What are the things we want to see on a shelf list? You don't have to look at the list of available fields, you can just tell me what you think. What is the a title, call number, item status, author, barcode, yes, you want to know you've got the right company so you need a barcode. Circ modifier would be optional, probably, it depends on what you're making the shelf list for. The number of circs, like if this was a waiting report we would definitely want to know how many circs. This is going to be a pretty simple shelf list. This is just sort of as a peripheral concept sure you have reports work. So I think we've got some fields here and I think Linda may have given us a nice summary there, comprehensive.

 Right, where it falls in CREW rankings, we are not going to get into CREW right now, we have created in PINES some CREW rankings.

 What I like to do is figure out where the item is physically, which is one important thing. So, who owns the item. I'm going to expand this. The circulating library is where the item actually lives, where it is on the shelf. So we are going to pick circulating library and we are going to look at, we want to see the name. Let's do the short name. We call this, in PINES we call it the PINES code, but you might do something similar, the policy code, shortening, whatever you want to call it. What I did I click on circulating library, I clicked on short policy name. Then I'm going to click add fields. What that does is it put it down here. Now, I haven't talked about the transform column yet and I will get back to it.

 So, this is going to show us, this is a display field so this is what's going to be on the report. The other thing to know if the order you put them in is the order they're going to be sorted by if that makes sense. So, we want the owning library, the circulating library. We also want to know where in the library it is. So we probably want shelving location. Now, again, I'm on item and I've expanded item. So I click on item and it has all these places to get other things. Shelving location is such a place, so I'm going to click shelving location. And we have these columns here in the middle and I am going to click name. Okay?

 So, so far, we show the circulating library, and shelving location, but these column labels, I think we are to have a problem here. Because it just says short, policy, name, which is not going to mean anything to your bored, Instagram scrolling circ person. So why don't we change this. And the way we change it as we select this and you can right-click and you can say change column label. That comes up with a pop up and then we say circ library whatever you want to say. Now it says circ library.

 Is the circulating library only library? Well, you've had an interesting question. Probably in most cases, yes. The reason there is an owning library, which is an attribute of the call number attribute, volume number attribute, was that the ideas you can be a library system that owns an item but maybe you change where it circulates. But you still own it. I guess the best example of this would be like a bookmobile, maybe, or a temporary shelving collection for temporary shelving area that's considered a different unit like a subunit so you can be the, I always pick on Athens because I went to the University of Georgia and that's just the city that's dear to my heart, so the Athens regional library might have this item. It puts it on the bookmobile. Well, the bookmobile doesn't own the item. Athens the item. The bookmobile is where it's shelved right now because that's where we put it. So that's the idea behind a shelving, like a circulating library versus an owning library. The circulating area is on the item in the owning library is on the volume. If that doesn't make sense to you, go grab your nearest cataloger and asked him to explain, because they know all about it.

 I also don't like that shelving location just says name.

 That's pretty not good, so let's change that one also. I won't say shelving location, okay. Now that's together.

 The other thing to know, that's what I was talking about using the description for the little breadcrumbs thing, this is talking about where we got this information, there's nothing that's obvious what this is, we did it come from? You're just going to see circ library. Not all catalogers will understand why this is, yes, you're correct Elaine, as you know, I know.

 You don't know where these came from because you changed the name. That's what you did this breadcrumb style documentation. Maybe when the report is done it can autodoc itself. Because the type of breadcrumb I do is not complicated, it's just where to look like. It seems like [inaudible -- off microphone] keep track of that.

 Circulating library, circulating location, from my point of view I really wish we were in a room together, this is so much better in a room. I would want to see the call number on the report next so we can locate it on the shelf. So went to click call number label, add fields. Again, call number label is nobodies way of saying that, because nobody says that, they just say call number. So unchanging that to call number. Then, we want title, oops, where is title? Now we get a good lesson as to why reports can be complicated. But hopefully this will teach you where these things are. Probably 85% of the reports we've ever created are some variant of an item list. This is important if you start with the item source. So the item, call number volume, I'm going to expand call number volume. There's bib records, so now we are getting a little closer to where the title is going to be located. We are now going to expand bib record, though. The bib record itself has the title, these are the actual fields on bib record. But it's not going to be that useful because what is going to be is MARC 21 slim [sounds like] that's not what you want. The cataloger doesn't have to explain that to you, probably, it's just going to be a big blob of XML. What you do want is the title, the symbol, and fortunately under the -- [indiscernible] of one item, I've expanded [indiscernible] and expanded bib record and underpaid record is a section called simple extracts, I'm not going to click the area beneath it I'm going to click the word. Now that's highlighted in these are these fields to pay, look, familiar things. You with these are. You may not know what fingerprint is but you're going to know the rest of them, probably. So we're going to do the title is here and hey, look, the authors here too. We're going to go ahead and grab that. That is eclectic, click the title first and then the other. I will book, because it's useful for cataloger to have this later if say they can't find this I will click TCN value. That puts the TCN of the report. I clicked one, two, three, in that order and I went to click add fields. Hey, look, in that order and added them all at once. So there's another UI feature, user-interface feature, is you can click multiple fields and you can put them in, you click them in the order you want them to appear here.

 Let's say if we want TCN to appear before author, you can do a right click on that field and click move field up. We don't yet have a drag and drop, that would be a nice thing. But I don't want there, I'm going to click move field down.

 If you want to unclick one of these, you can do that and that will unselect that. So far, we suggest doing all of this as text, that's the only data type we're dealing with yet. So we've got circ library, shelving location, call number, title proper [sounds like] TCN value, --- going to go back to item and I'm going to click barcode and say add fields. Again, I'm going to clean up some of these column labels because I just don't love them. That's optional. A lot of libraries just leave them the way it is. But I think reports are complicated enough without confusing language here at the top.

 That's a nice clean set of column labels, we can deal with that. Am I ready to go? If I ran this report right now what would happen?

 Was there a move in that dropdown? Yes. If I decided oops, I made a mistake, you can click remove field and it will take it out. Yes, Bradley is right if I ran it right now it would be all the items, it wouldn't matter if they were deleted or and deleted, it would matter, you would get everything. Now, when you are using the small test data on a test server like this one, that's no big deal. But if you're an PINES and you have I don't know, 15 million items or so that are living in the database including deleted one, don't want that. It's definitely not what you want.

 So we need to, well, filter off a result, right? So that's my really clever segue to getting into our next topic which is filters. We now know what we want to see, and I'm going to click filter. We're on filters. Everything in the top stays the same. We're still picking the fields from the top, it's the same thing. So, we want to just limit this to the library we're in. We do have them as deleted flag, so we are going to start with item, might as well to that first. Thanks, Ruth. So is deleted is one of the things we want. I'll just go ahead and add that down here.

 Now, right now, if we leave this as is, all right, I need to back up slightly. So, source path tells us where this came from. It tells us the name of the field, the column is what the database calls it but the field never calls it. The data type, we talked about Boolean, not bouillon.

 the operator is equal and transform is something we would talk about in a second because we are going to have to figure out what that means. Operator is a little bit like your operators in math. So there's going to be equals and things like that. So we're going to change operator. Sorry. I'm going to back up.

 If you leave this as is without a value, operator is fun, there's no value. If you leave it without a value, the person who runs this report is going to have to select whether they want deleted items were not deleted items every time they run the report. That's going to confuse the holy mother out of whoever is trying to run this report. So we're going to change the filter value and it lets us choose true or false.

 So, this is also like head spinning logic, deleted true versus deleted false. Deleted true means that has been deleted. Deleted false music has not been deleted. We want things that have not been deleted, I'm going to click false. Does that make sense, or did I lose you?

 Sometimes I'm listening to myself and I feel like I'm talking doubletalk. Okay. So, we have to set that that's what I call hard coding this. You just go ahead and you hardcode. We're never going to care about deleted items. In fact, most of the times, nobody cares about deleted items except for catalogers. They want to run these are the items I've deleted this month report or something like that. So like circ staff doing a shelf check, they don't care about old items that no longer exist.

 If we ran this report right now, what would it be? It would still be everything, but it would be everything that is NOT deleted. Things that are supposedly on the shelf in the entire library system, right? All the things. So we need to limit this to where delivery is. We chose the circulating library so let's be consistent, we'll choose circulating library again.

 This time, we're going to click this organizational unit ID with that weird pine tree symbol thing. So we're going to click that and then add the field. That means organizational unit and it even says so down here, the data type is org unit, while that's not a datatype if you went on the [indiscernible] manual it's not going to tell you there is a org unit datatype. That is a specific to Evergreen thing. What it does is gives you a little bit of what I like to call magic. What it will do is it will give you with equals or with and the list, it will give you a nice selectable list of the libraries that you want to pick from and we'll see that in action in a minute.

 Okay, we're going to change this operator from equals to the list,, this goes a little bit away from the model that which is going to hand this to your staff member who is sitting at your desk in your library. But, this lets you run a shelf list for multiple libraries if you wanted to.

 Now we can select the library where this is. And, so if we run that now, it will show all non-deleted items at the libraries we select on the list. So, fewer of the things, but still probably not what we want. Still a lot. Even small libraries, that's going to be thousands of items, probably.

 So we need to limit it further. I think a good candidate for that is the shelving location since that's sort of what we're after is the shelf list. So we're going to click shelving location and we're creating a filter now, so hmmm, do we want to have to remember the name of every single shelving location? I think we don't. We would rather have a nice selectable list of the shelving locations in the library. So what will do is we will not pick name or we have to remember this stuff. We're going to pick the weird barcode looking thing called location ID. So ID, I'm going to click that and click add field. ID acts a little bit like work unit where it creates the nice selectable list if possible. That list is not only nice and selectable, it is contextualized to where your library is logged in. So I am logged in at BR1, so when I run this report from the BR1 workstation like I am now, it's going to give you a list of BR1's locations. This is another good thing about having consistently named shelving locations across libraries. [LAUGHS]

 You know what? That's not true. It will still go by [indiscernible]. But anyway, we are worried about one library now.

 So again, we want a list, we want to be able to pick more than one, because this person's been on Instagram all day, so they may need more to do. So we're going to change operator to list, and list will let you select multiple. So now we are going to be able to get non-deleted items at library whatever you choose and shelving location whatever you choose.

 So Terran ... "That's something I hate because I don't want to have to log into a branch workstation in order to get their shelving location list." Yes. If you administer a consortium like we do at PINES it is frustrating, because as a matter of course, we're just logged in to our unit. If you try to run a report at another library that's contextualized like this, that throws you off. Before probably most end-users that are administering multiple libraries, this is perfect, it does what they need it to do. Like our friend Scott Brock here, who I am logged in as.

 So we got a report... We've got our filter set up to deleted and that ... We've got our shelving location in a list, I think we're ready to roll. We put in our template name, our template description with our amazing documentation we've been creating the whole time. Then we got our documentation URL. So I'm going to save the template and it's going to pop up and say you want to do that? And I say yes. At the bottom, you probably missed it, but there was a little green box that said template successfully saved. Then it kicks you back to this starter screen. I'm going to find the folder where I put it. If you're a messy person and you have a million folders, that might be a challenge. This is why it's consistent to work in a sandbox folder that's always the same.

 Well, where did I put it? Hello? Why didn't that work? You saw that it worked, right? That's very interesting. All right.

 Start. Well. See, live demos, live demos will always kill you. Let's take a quick break. I'll try to get my stuff together and fix this. That we give you a chance to stretch. It's been about an hour and 10 minutes since we started this session. If we can come back in about 10 minutes, that would be great. Have a nice break.

 [BREAK UNTIL 3:52 ET]

 >>CHRIS SHARP: Yes, I have changed servers. I'm glad this is helpful for you. I will give folks another minute to come back, although you're probably already basically here. And the template we slaved so hard on did not get saved. So I have created the same template on a PINES test server that has all of the junk. These are the junkie folders I was talking about. So my Chris folder is just full of many, many experiments, some failed, etc.

 Okay, so we're going to run this report. You run a report by finding it on the list, you find it on the box beside it, did you say create a new report from the selected template. I'm going to select submit. Yes, I tried to be verbose in the descriptions because I want to know what I did and honestly, that has never failed me. I can always re-create what I did if I do that. So, my first report, this is a real library's real data as far as their items go. We won't be doing patron data for that reason on this server.

 Let's see, a very useful description. Okay. Now, the stuff you type in here is going to get seen by whoever you share your reports output link with. That's just something to know. If you get cute, or insulting, or whatever, just know someone else might see it sometime. I tried to keep in mind if my boss might see this, the public will see this, just be careful.

 This interface is the running reports. We have the template name, the creator who is me, the description which I've put a very useful description, I'm going to put a little medical thing so we can distinguish the useful description from the other useful description. It shows you the reports, columns we're going to be singing. Then it says choose a folder to store this report definition. Remember, I told you what reports are in here, these reports on this side. I’m going to make this slightly bigger, there, that's probably better for you all. Over here in report that's where this is topics, I’m going to pick the Chris folder for that. Now you can see the nice, selectable list I was talking about. These are all the PINES libraries. Mine is, it probably won't be that long. I am pretending I am inside the Athens library, that's where the Instagram using staff member is. So I'm going to add that. If I wanted to add other branches, I could. But since they don't have these shelving locations by ID, that might not be as useful as you think.

 Now, this has populated this list with the shelving locations available to this library, which means that that's why we're seeing -- first of all, there are one, two, three like ones, I don't know what those are. So take note, Elaine, then we have two adults, there's no way to talk in this situation. [indiscernible] bear with me. If this were in lists you would see the add and delete box there, but I'm not going to worry about it. We're not going to send their Instagram or to more than one section. [indiscernible we have no way to know which of those are. But using multiple locations, so this must mean that the Athens location has, at the systems level, an AV shelving location, then there's another shelving location that belongs with this library. That must be what's going on now. For the third one I'm not really sure, I don't think there is a PINES level. It's also possible that there's a trailing space or something after one of these and that's why it's allowing it to be. They have to be named uniquely. Elaine is saying I've seen deleted shelving locations. Okay. I have not checked to see whether this cares about deleted. It would be nice if it did. If it doesn't, that's a bug. Good on you, Elaine, go report that bug.

 We are going to tell them to do a shelf check out biography. We'll be nice, that's not as big a section as like fiction or something like that. Hopefully it will be a terrible long list for us. You can also see the filter that we hardcoded. That is an F, that may be difficult for you to see on screen, but that is a letter F, which stands for false.

 That's a good point, Terran. This is the way we troubleshoot in PINES, we just find the problems with what the other person's house.

 So output options, by default, it's going to say to output it as Excel. Excel can be also read but open office/[indiscernible] office calc or Google Docs or whatever. You can also do CSV output here, comma separated values, that would be very useful for somebody who wants to upload this to a website or the database or something like that.

 Calculate grouping subtotals, that's a fairly recent feature that uses a built-in feature of [indiscernible] SQL that we haven't found particularly, mind shatteringly useful, but it is good.

 That we have HTML output which is going to give you a big box on the screen that you can look at. I used to just see what it looks like. Also Excel, you will learn this if you work with Excel or Evergreen reports and thought, that Excel by default drips out certain... if you have leading spaces or trailing spaces that actually exist in the database or even leading zeros, you won't be able to see those in Excel, they just strip them out. Sometimes you can see them in the HTML output. Then there's the charts, bar charts, line charts, bar charts is done by phone. Again, that's not something our libraries have found all that useful that I've ever heard, but they do exist.

 Here's what we talk about how the report gets schedule. Some of these you want every day, some of these you want every week on Monday or something like that. That's what you have this option of recurrent report. You click that report then you can click the recurrence interval. It can be every week, every month, every two weeks, every 23 days I want a report. That doesn't seem like a probably common thing to see. In this case I actually don't want it to recur. I will check that. Run it as soon as possible or you can pick a time. The advantage of picking a time as if you were going to choose a Reading report, let's say it's May 24, right, it's nowhere near the beginning or the end of the month, but you want a report that comes on the first of the month. How do you get it to do that? How do you get it to recur on the first of the month? You pick your recurring interval, pick one month then you start it, actually, in the past on the first. That it will do whatever time you pick, what that does is it puts it in the schedule. The report scheduler actually looks for the oldest report that can run that has not run yet, and it will take it from there. You can schedule in the past that will let you pick a date and your time. Otherwise, what it will do as it will run at Monday, May 24 at 4:01 PM every month. It will be the 24th 4:01 PM and that's probably not what you want. So I'm going to click recurring because I don't want it.

 Run it as soon as possible because we want it now. This is an ad hoc report. Went to give it to the Instagrammer and do this. The completion notification gets sent out by email. If you have an email in your account you can put it here, you can also add another... oops... email. I just did it with a space but you can do commas or whatever, it's Perl, so it knows what it's doing. I'm only typing badly because you're watching. Then, you can put as many as you want.

 Another thing is if you... no, you cannot do ASAP and recurring. But if you set the time, if you don't specify the time, it will just be the time right now. Yeah, it runs the first time right now, if that makes sense. Yeah. Sorry, Dee, getting turned around even in my thinking about it.

 So with the emails that receive this, this has very little to do with Evergreen, itself. But if you are getting these sent to a particular set of staff members were Betty gets them right now but Betty retires then Annie has to get it next, it might be better to have a report at whatever your library's domain is instead of Betty at whatever your library's domain is so you don't have to worry about that jumping around thing that you always have to do with somebody who leaves. So you might just have a reports group and then send it to three different people who are part of the reports alias. Yes, Jeremy just said to send to aliases. Exactly. It's good to have a Jeremy Miller wrote when you're working in a library, they can solve lots of problems like this for efficiency.

 If it's recurring, the report, you can always edit the report. Yes. You can. That was not always the case. You stop to delete and start over but yes, you cannot edit reports. Then you are selecting or output folder, again, I'm just going to pick my junky Chris folder for this. We have put in our name, their report description, we chose number of column, we have chosen where it's going to be stored in the Chris folder, we have picked URL ATH which is the Athens regional headquarters. We are choosing biography, it's going to be not deleted items. We chose an Excel. We don't need CSV. We're not going to worry about the grouping subtotals thing. We don't want it to recur. We are going to get as soon as possible. We are picking emails to send it to. I have picked the output folder. We're ready to roll, click save report, that pops up, action succeeded.

 Then what happens? Hmmm. You don't know. [LAUGHS] At this point, it's up to your server and how quickly it runs. But what you can do is check on it and it probably has come back by now, actually. If you go to your output folder that you just chose, you can click on that and it will show you what the status is. In this case, it is under Pending items. I'm wondering if Reports are actually running. I make to a quick SysAdmin task here. Bum de dum...I told you there would be black screens and code. Nope, it's not running. Okay, now it's running. Let's see what it does.

 Bum bum bum de bum bum ...oops? Cannot connect to server? I know why, that's why it's not working at all. Sorry, more SysAdmin. Shoot. Live demos, guys, live demos....Bear with me. You're right, that was the wrong theme song. Tell me which one to whistle or sing.

 I can't show you that... I had to move it off the screen for a second, because I'm about to show you sensitive data. Sorry about that, guys. All right.

 All right, now we might be in business. So forgive me. Oh, good, I'm glad people are actually running reports because I haven't been able to yet. [LAUGHS] Apparently we have a queue of reports, because this has taken a little bit. all right, maybe it finished. It finished!

 Am I a reports genius? I'm not sure I am. I think I just mentioned that I'm not. To view the report output, you click the box beside this. Make sure it says you were [indiscernible] out, but then click submit. The other thing that has happened is that an email was just sent to me and Terran with this same link here that gives us report information. If you have the permission, which in PINES all staff members can see reports, if you give them a link, they can go to it.

 So his as there are too many rows to make a bar chart. The title is my first report, it shows a very usable description of my report. Like I said, this is visible to anyone you share this link to. I'm going to click tabular output. That's the HTML option. It might be huge. This is our list. So this is the biography section t that URL Ath, this is from several months ago but it shows you all this information and it shows you all the things you want to have a there. So that person can go, we didn't put the status of their, somebody mentioned that, that would have been good, because some of these would check out. We should have filtered by status. But this is how you learn, you try things. We see these are two different books, sometimes you see things that look the same but they are different with barcodes, so these are difficulties. So there's that. Also show you, you can click back to output index, it will take you back here, you can download it as an Excel file, I'm on Lenox and running ---. That I come on here and you can do all the cool stuff you can do on Excel to make the list bigger or whatever. I'm not going to do it right now, Excel training is something you should do if you don't know it. The other thing I click is the pale blue button that says debugging info. Here is what the actual query that was run looks like. So it's this big blob of stuff, but it is human readable, that's showing you what the columns were at all that stuff, it shows you how the tables got joined together. So let's say that you run this report and -- like wait a minute, that's missing lots of titles that I expected to see on the report. You would then get your Evergreen administrator who knows how to troubleshoot this kind of stuff and give them this stuff here. Then they could go in and say huh, the join is here, that's an inner join, that should be an outer join, then you could figure it out. That's stuff that is beyond the scope of this training to get into deeply. But it's good to know this is here and you might actually learn something from this. The other thing you can do, and I do this all the time to make it look less crowded as I will go in and using find and replace in a text editor to get these long strings replaced with something like ACP or something like that to condense this so I can understand which tables' fields are doing what thing. There's a lot more on this screen than that which is useful to system administrators. It shows you which template, who owns the template, what folder the template was in, the actual data for the template that was read by the reporter at the time it was around, the different parameters that are in there, all this stuff is useful to administrators is probably not useful to you. But, that top part is very good for troubleshooting.

Yes, Ruth, this didn't always exist, either. When we finally had this feature, I was thrilled. Because before, you had to go, you had to basically create this yourself with like a Perl script that was on the server. This is so much better to have this here.

 Let's talk a little about reports and how scheduling works. The report runner is called ClarkKent.PL, which is hilarious, he is your friendly neighborhood reporter and he is running in the background, waiting for trouble, it's what it says from the server side. That process checks I think pretty much every second for new reports. At the top of every second. It just does a query to the database. What it's doing is it's looking for any report that is older than now that is like the agent we are right now, is there anything older than this, and runs whatever's there. That's why you can put in a date in the past and then oh, you didn't understand the Clark reference until now. You can put a date in the past and it will still run. The, depending on your system and how it's set up, it can run multiple reports at a time. In PINES we have six slots. At one point we had 12 slots, because we just have a reports backup and that really have more to do with hardware than the number of slots. There is a diminishing returns. Well, why not have 20 slots? Well, if you have 20 large, long-running SQL queries on a single server that can suck all the resources and cause trouble. In fact, even if you have sex, occasionally was like at a super ambitious person out there the library that is like going to weed all of the things this month. So they would have liked the thing with the few features we were about to run. But they will run like six reports one time like Bam, Bam, Bam. What that's done is it's got reports that might run a while taking up all the slots, that everyone's waiting for their reports to come back, then they send us tickets that say I read the report an hour ago and it's not back yet and it usually just takes a few seconds. It's sort of like any shared resource, you just have to be considerate of it. But we also have ways to figure out if there aren't reports that are running overdue or reports, you can figure out about who's running the report of that stuff, there's some queries you can find that stuff out if in the server administrator.

 But, there's not really a way to tell, you can't see a progress bar or anything like that from the staff client-side and that can be kind of frustrating because you sent it off like oh my god the board meeting is in five minutes. For one thing, don't do that. For another thing, there really isn't a way to know how fast it's going to go. So that something that you and your SysAdmins will have to negotiate.

 We only got to do when output. I will show you cloning real quick just because we can. To clone a report, you go back to where your report is located. Oops, that's output, it's in my Chris folder. The report I named it Simple Shelving List. So I clicked that and set of create new report, I'm going to click Clone Selected Template. Submit, and that it lets you pick the folder, the reports folder where it's going to be stored. Again, I'm just going to pick Chris, then select folder. That it throws you back in this interface, but it's different because it's got fields populated. I'm going to make this a little smaller again so we can see everything. It's as simple shelving list so it's got the same name except it says clone afterwards. If you cloned it again it would say clone-clone, because it just adds to the end of whatever's there. That's because the report has to have a unique they. Again, same description. It has cloned the report, it's copied the report totally.

 No, you can quote this to sort of save it, meaning this was somebody else's report that they shared in their shared folders and I want my own copy, you could just save was there and say super cool, even if they move it away, I love this report and I want my own copy of it so you could do that. Or, you realize I forgot to add the status or whatever, in this case we actually did forget that. So I can actually go in and... where is status? Where's status? Copy status, so we've got a lot of problems here. I want to show copy status. So let's put the name and you can add a field just like you did here, you can change the column label like you did before so we've added the status field and maybe we even want to filter for status, in which case we would use the ID, add field, we're going to change the operator to end list so we can select the status we want. We will also change the shelving location end list because I meant to do this before. This is a way you can go back at what you did and save it as a new report, save it as a template, and then that's done. That's a handy way to copy someone's template that you find super useful. Then since you have your own copy with it they can do whatever they want to. The original doesn't matter anymore. The risk of doing that is that I maybe found a problem with the template you thought was so cool and I moved it and you have a copy of the bad one, well, it's just one of the risks.

 Where do I find out more about reports and also how do we share templates? At the beginning we have the folders, you were creating a folder, I'll just say this is to create a subfolder. There is this option here, so you don't share a template exactly. Yes, exactly, it has to be in a shared folder. No, you don't have to copy a template from a shared folder. The reason I mentioned shared folders is let's say, like the one I just that was not in a shared folder for instance, this is not shared and I was able to clone it. But the reason there are shared folders is so you can have access to these useful things that your colleagues have created you can make your own copy of it. So strategies for managing a large number of consistent templates for a consortium. Whoo! You ask the hard question. If you're at the very beginning of this year, at an advantage, because PINES was like the Wild West for years, and it still kind of is. Quick Reports took care of a lot of it for us and I will show you a quick work report in a second so you can see what it is. What I do, and I know that Dawn does this, are poor circulation specialist Dawn and Terran our program manager will have these same methods. But what I do is I have a csharp folder that is this. I have that shared with the consortium. Then, I open, when you open that up you will see I have it divided into subjects. And within each one I will have my set of templates. Know all of these were created at a particular time that they will show the great time for each of those templates, for a particular purpose. So you are, I vouched for it on7-7 of 2016, whether it works that were not I don't know, and not testing all the templates I've ever created to find out. There is always a risk of breakage as the database schema gets changed with every upgrade. That's just another risk. We do not have this UI column that shows you where it was created. If it says XUL, pronounced zool, that was the old client, if it is [indiscernible] that is created in the new client, that does change how it is created in the system. I would just say be careful about organizing them, to begin with. If you can, as you find one that no longer work, make sure you move them out of the way so no other people grab those templates. That's really the only advice I have for you.

 Is it possible to add titles to report results? Do you mean title the report or add titles?

 Yes. So the templates have a name. Those will be somewhere in there. But when you run a report, we did this is second, I'll just run it again, I'm going to click my simple shelving list. I'll do they clone this time since we fixed it. If you check more than one it's not going to work, you have to uncheck it. It does allow you to select them all if you were going to move them all delete the whole that's why this exists. I'm going to click create report from select a template. Here is the title. So that's the name. As far as the actual text or in the Excel file or whatever, if that's what you're asking, that's not there I don't see why, we gives a Perl library that creates the Excel file. I think it's just called report data.xlx Sheet 1, but I think you could actually need the sheet if you wanted to. I don't know. Is that what you mean? Is that helpful? I'll answer Diane while you're doing that. How can I share a template I created with another library in my consortium?

 Now, in PINES we don't allow cross library system sharing, and it's possible your consortium does the same thing. The reason for that, in our case, is that we know that each library system does things subtly different from another, and there's a lot of language that can be misunderstood across systems. There's a lot of the processes are slightly different, the thought of the assumptions are slightly different. It just opens things up to a lot of risk that we think it's better to just not sharing.

 We have sometimes had a library a say we think this is a really great template, we would like to share this, then we vet it, and if we think it's generic enough we will share it, but we don't allow cross system sharing, if that makes sense. I hope that's helpful.

 Okay, looking at Jeremy, staff tries to do any report, new template from scratch or existing, doesn't get the results they expected, how do I see why, the choices they made would run to get in their results? That is where you would ask them for the report output URL. They can get that from here where we had our outputs, we are going to review our report output, that is here. That should also be available to them in the email that they receive, so you can just say can you share the report output URL. At that point you can look at the debugging info. It actually does, down in the template, it's hard to read what they actually did, but it is in this code, what the actions were. But what I do is look at the SQL. I just throw this into the file, I do this to select that I talked about and figure out where the problem is. At that point, you're talking about, and it sounds like Jeremy, you might actually benefit from an advanced kind of consortial level reports training maybe I will do someday, not this conference, but being able to get in there, understanding how to control joins with nullability factor, that is what that little clicker is, [indiscernible] allows you to control which table is joint which way. But often because they selected the wrong filters the runway or whatever, like you can see here you created an impossible selection in the report came back blank. The other thing is just knowing the data in the libraries often know it better than we do at the admin level, knowing your data really helps.

 When I give staff a report affect the title in an Excel report I was wondering if a title telling them what they are looking at can be added without me. Stuart said in Excel the top gets the title of the report. Maybe that's enough and you just need to point them to the top.

 So an advanced seminar. I have my own personal joke that's not super funny, but I always say there is no such thing as a non-advanced reports training in Evergreen.

 Where with the filters we put on the report which is created? Do you mean in the SQL? Because they're here. It's hard to read but this maps over to this table, so that's the org units ID, and this text that is between the dollar signs, this is actually quote [indiscernible] this is why it's better to throw it into a text editor and do a big find and replace.

 Let me just real quick before we break for good here, I want to show you the PINES Quick Report and show you what it is no contact this is what we can re-create.

 I don't want that one, I don't want csharp... here we go. Oh, Last Pass why do you bug me [sounds like]?

 We have this tool, the point of this tool was to increase our ability to just have an easier reports thing. Basically, with reports, it's just better to hide everything you can that you don't have to see. That's kind of what we did here. So we have a set of templates organized in the way I told you I've set up my folder, basically, by subject. We have these circulation counts. It's very similar to, or circulation reports, it's very similar to doing a report like we just did. I will just click create a report. It takes you into a very similar looking interface we can put the name, the description, the filters that you want to recurring, all this kind of stuff. It's just a prettier interface and you can do all the stuff. We have this save as draft feature that lives. So if you get interrupted you can just click save as draft, walk away, come back and pick up your draft. That's not something that's available in the regular reporter. We have editing which used to not be the future. This was developed at the same time the added editing. You want a report and it tells you if it's done there. Then you can look at the ones I've run so I can look at this, I can run it again, I can't delete it etc. Don't have any direct reports, I don't really use these because I'm usually [indiscernible] the database. The other cool thing we have is this executive snapshot. These are pretty run, so the data is already there, and we just filter it live. If I pick A, this is the Augusta main library regional branch, if I click on last month report you can click on these things, [inaudible -- off microphone] items report, that automatically just thrown into a screen that has all of these done.

 What we did is not that hard to do, that code is open source. You can see how it's done, it's on the Evergreen site, the git site, I will share that for any tech people like Jeremy who are interested. PINES reportcreator.git, this is where it lives. It requires some PHP stuff that's not normally in Evergreen, that's one of the reasons I think there's been a little adoption, because a lot of people just don't love PHP and you can count me among them. I just don't love PHP, but this feature is awesome and their libraries love this. Especially because it has this Executive Reports feature. So the thing when you're like oh my god, the board meeting is in 10 minutes and I have to have the report, this is the solution to that, just ready to roll, it's already been run. There's nothing to do. That Executive Reports versus Quick Reports for both of them are in that first executive branch.

 Any questions about Executive Reports or comments or anything I said I was going to cover but I didn't? There's always something I've dropped.

 Keith, we should talk off-line. Emerald Data Networks created and continues to maintain this for us. We really want this to be just part of core Evergreen. Oh, transforms, let me get back to that in two seconds. We want something like this to live in core Evergreen and the Evergreen community development initiative is talking to Equinox about a dashboard type feature that will have similar functions to this. So, you know, that's something that, you know, I know the PINES Libraries would want the Executive Reports at least to work in the dashboard. That's something like that, that's in the works, nobody's developing it yet, but it's in the specifications phase, so just know that there. If you're interested in setting up and administering Quick Reports for your library system, you can talk to me off-line you can talk to Adam Bowling who is probably somewhere, I don't know if he's here today with Emerald Data Networks and he can give you more information about how to set it up from their point of view. So, I guess that's it.

 Let me talk about Transforms really fast. I'm sorry I didn't get to that before. The best way to demonstrate a transform, going to clone my clone and I am going to add a date range.

 This is the same list we had before, I'm down here with the filters, I'm going to remove the copy status filter by clicking Remove Field. Then, I'm going to go to item and click on the word Item, and I'm going to click creation date time. Then, going to add the field. Now, by default, this data is stored as a timestamp. If you want to have a date range, a timestamp is great. So it's better to change this from timestamp to date. That's when you use a transform. You transform that information from one thing to another. So the raw data is a timestamp. And you have all these different possibilities... that's interesting, this is because I believe it up so big that it's doing this weird thing. [Anyway, I pretty much just use date or year plus month for certain monthly things. But, updates. Then, if you change that to the operator from equals to between, what it will do is create, I'm going to say for now, what it will do is it will create date field when you're running the report. So I'm going to go back down to my clone clone, and I am going to click create new report. Now, you've got this real date, real date function. So I can say between X and Y, and then back issue items created during that period. That's because we chose date. We changed that to date rather than just keeping it as timestamp. Timestamp is the date plus the top plus this long second thing plus the time zone. So that's not useful for this sort of thing. So it is done here.

 By the way I will mention that real date versus relative date, the relative date is going to be X days ago or months ago, whatever it is you picked, created between one day ago and 17 days ago or 17 days ago and one day ago. That used to matter, the order between these two. We now have a feature in place that makes it so it doesn't matter. That used to be if you have this reversed it would not return any results because [indiscernible] wasn't dumb. But with a new feature called a god, I forgot with the term was, anyway, it doesn't matter, you could not take it in any matter that it will do it.

 So, Quick Reports would be helpful, SAGE limited Quick Reports. The developer who implemented that is no longer there. Any other questions, comments, needs? Further documentation what do I do from here? Start with this section that we did. We didn't get to some of the stuff that's on here so if you have any questions after the fact just let me know. We've got all these PINES reports descriptions. Now that you know how I do documentation, you will see what these are and you can create them for yourself. Some of them like [indiscernible] list that is a PINES view so it's possible that is not enabled her you are. But hopefully these can serve as good examples. The other things I will show you, the Evergreen docs. Evergreen.org [sounds like] section on reports is very good and has gotten better and better throughout. Let's see, we have [indiscernible]? Yeah, this is the Antora stuff, you can expand reports, the report section and it will get you there. I will share this like if nobody else does.

 Then this goes through a lot of the stuff we just talked about. I would say if you're an admin and have to troubleshoot reports you really have to know SQL to do this. We can follow up with, on the IRC channel at Evergreen, or over email or whatever and we can talk about whatever you want to talk about, advanced topics.

 Yes, talk to Andrea, she's their development project manager and she can field questions about that. There be some features that Equinox hasn't considered yet that might be useful. Let everybody know.

 Okay, I really appreciate everybody's time today, we ran over a little bit, but I think this was a worthwhile session and I will see y'all later in the conference. Oh, you see my doggies back here? [LAUGHS]

 >>JENNIFER WATSON: Thank you Chris, it was wonderful.

 >>CHRIS SHARP: I'm always happy to do it.

 >>JENNIFER WATSON: Thanks to our sponsors, have a lovely evening, we get started tomorrow morning at 8 AM with keynote speakers, see you there.

 >> CHRIS SHARP: Goodbye.

[END TRANSCRIPT]