

CPS Tech Review July 27, 2017

Dashboard	Connections	Headers	Nozzle	Family	Connecting Header Nozzle to pipes	0:40
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The document tree is shown below. you okay I guess so I want to show a couple things present my desktop hearing a little bit going on here you can show you one second not to do clothes so I was messing around a little bit with our new hetero family we have we've been tweaking this thing and seeing what we could do in the functionality and how to make it easy for people to use of thing there's a couple little limitations obviously so we're trying to make it as good as possible I'm going to show some of the ways I would probably work with it and some problems you may or may not have so first off what we did is we there's a tech there's away in a family that you can move the shape handles so right here is our basically our Vic header and this isn't complete yet we're still its owner development we're still working on it but we're trying to do here is we're moving the shape handle so there on the nozzles themselves we put them off to the side a little bit so they're not right at the connector we originally could put the shape panel at the connector but it was really hard to see them it was a little confusing so we moved them off to the side and you'll see that there will show up here for each nozzle now you'll also notice that if I select this header and I come down here there's a lot of options we're going to clean up some of these options and probably rename some things and reorganize stuff but I can set the distance from the center to the end of each nozzle so let's say this is one two three this is the fourth nozzle down here so if I go to the fourth I can make that you know three foot six right and it will move that nozzle left and right if I have some piping attached to that like as in the third nozzle so if I take the third nozzle and I bump that the three space six you'll see that it actually moves that piping accordingly so for the VIC headers if you're using when we get these things created if you're using them it's gonna basically if you want to change centerline and nozzles you're not going to move let's say the pump you're going to have to select the headers and make the change in here under some of these constraints we're going to reorganize them we're also making a change where we're going to start saving our families back in Revit 2015 so that means we'll be able to reorganize our constraints and our parameters so we can put everything in an illogical order so you know we can follow the nozzles in numerical order the distance from the end together all the angle rotations together and these visibility parameters that you see down here those you won't have to worry about those are automatically get change when you add numbers in here but just to give a feel for how this is and how it you know what we're looking at creating what we should have created we're going to put some shape handles in here that exchanged the length of the null or the distance from the one end of the nozzle so I'll be able to stretch these nozzles left and right now in this family I have I have to use these numbers up here these parameters up here to do that you will notice on this is work as we're making if you have a flat header like this it actually works out pretty good these shape handles are in zone air you know really easily available to it right at the nozzle but what happens is those shape handles actually never move in the family we ran into a limitation with Revit that if we can't get those to rotate with the nozzle if we do it just it just Revit breaks and the shape handles flip around and it doesn't work correctly so you can see this shape handle here even though it's up here is still controlling this nozzle down here and the rotation of the nozzle and the location of them is set by these angles here so if I set this to like 45 it's going to throw the nozzle around so 45 by set it back to zero you know it's going to put it there it's going to make it 180 it's going to flip it around again so you know that's how that type of thing is going to work so you'll have to set the angle of each nozzle if you want them off on different angles if all these nozzles are in the vertical just

you know flip the family you know rotate it into the vertical and then all your shape handles will show in that view as well so you know don't come in here and change all these to you know the same angle you just rotate the family right I mean it's probably pretty logical so couple things usually what happens when headers is you know you come off of here you're going to draw a pipe you know and you're going to have a piece of pipe here and you know a lot of times you know we like to have things that dimensionally logical numbers right so let's say this header here I want this at 3 feet okay so that's going to be what I want and what I really want is this nozzle to be stretched up to that point now there's a handful of problems here that I'm finding is connectivity to this thing can be a little tricky so that that is going to be a little bit of a problem but I'm going to show you a little trick that I found that you may or may not know and this applies across all families and calculations and formulas you're trying to do and rev it so let's say I have this nozzle right here but I want to move it up to this point here right so put a dimension in in here let's say I want to go from this point right I'm going to take that up to this point and I'm going to select the coupling so that's the distance I want to extend the nozzle right so what I can do is I'm going to come in here now and delete the pipe in here and if I select this couple I can come in and copy that dimension so I'm just I selected the coupling that I dimensioned come in here select that value just say ctrl C and copy it right now I can just come in here I'm going to delete that if I'm going to go fitting the fitting by extending this nozzle up in this elbow what do I need everybody knows this is a multi-port fitting I can throw that in here okay now this is the one two three four five business sixth novel right so if I come down here to the sixth outlet there's the length of the sixth outlet right now

Revit	Adding	Parameters	dimensions	Calulator	Revit built in calculator	14:55
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I don't know how many people know this but I'm going to put an equal sign in there I'm going to come over here and I'm going to hit I'm going to say plus and I'm going to do control V so I'm adding that that length I copied and now it extended the nozzle right into place so I didn't have to do any math I have to get my calculator out I can just the trick there was is I just in the parameter I put the equal sign in the front add subtract the number I want to subtract or add and add BOM now it sets that to the correct location now the little problem we've had is that connectivity to this thing is a little tricky so everybody probably knows that this isn't connected right now right you can get it to connect sort of it's a little tricky I've had okay now it's going to connect because everybody's watching but if you don't get back that circle with the X through it and it's not going to connect it should be connected now if I move it in it is I've had it that it doesn't connect that easily I'll be honest with you so what you do then is I would just stretch this out come in here delete this and just draw a pipe back to it right and now use our delete pipe command and that will keep connectivity and now you're connected back to it so Oh as a whole I think the headers when we get them completed will be a lot faster than our current process but will be also nice is we're going to get them the fully scheduled and you know show up on the on the 8 on the advance bill material the construction bill and everything but I think just for that it'll probably save you a lot of time modeling's probably it might be a wash I mean it's going to be probably about it's going to take you a little longer to fill around with these nozzles but you had to set the non-connectors and then the graphics on the way the headers would show was a little incorrect as well a way we've recorded hey Ralph question for you on the when you click on the family you have the nodes at the end of each one of the taps and you not click and drag from that node yeah but it doesn't stretch it oh it just moves the whole family here exactly just moves the whole family because if we could set like you have that the 3 foot line coming off the line of 3 foot out if you can just that where you want and then grab the node

just pull it on and have the node actually had a node move the tap rather than move the whole family that would be nice that would make connectivity and connecting it to your pipe easier I would think yeah it doesn't work that way because you're stretching to connect a shape handle and that's a connector you know I mean it's still you know I mean like I said doesn't work like a piece of pipe foot where you can grab the note on a pipe and stretch it yeah because this is a pipe fitting that's the thing this sort of goes into one of the things I was actually wanting from Ricky and it would be really cool and he said it's possible but we just got to figure out a few minutes of his time somewhere but it would be really awesome if I had like let's say well let me unconnect that first over there now let me see what's going on here I think I have to delete this couple inch sums messed up there we go so what I like to see it let's say I get this in place here right and I put in my coupling on there my multi-port coupling that I need see sometimes getting things to connect is a real battle I would like to see is a tool that if I select this and that it takes those two open connectors that I selected and it just pulls them together and connects them I love you that would be awesome yeah tool because when it happens or it can be a real challenge and get something to connect and be honestly the only tool that really connects anything is that the lead pipe tool because pipe connects everything so a lot of times I'll have drawn pipe off something just so I have a method for connecting to it but having a tool that I know through the API it's from what Ricky was telling me it was possible yeah I actually take a portion of what I did with the delete pipe tool because the delete pipe tool basically deletes everything in between and nothing is connected and then one by one puts everything back together and you know changes the locations of things so the initial I would make it that the initial component you click on I would I would probably make it component to component not connector to connector if you're alright with that you'd click on the header and then you'd click on the coupling and then it would pull the coupling and all of its friends to the header yeah how would it know that it's this connection just based off proximity of project imaging yeah be the closest connection to it and oh that would work that would be awesome because I know that can burn like 15 minutes I'm sure I think maybe people spend lonely times than that trying to connect something that just fights them to the end you know but the equipment can be the real challenge especially for when you're starting to use Revit I'll say that what do we call this tool pipe connects to any connect any connect super connect the super connected you know come up with something but it was that would be a pretty good bring any tool like any that wouldn't how we become the most used button on the toolbar yeah it would probably be a key command I put a button on there but then assign it to a key command and just go and say it's AC for any act AC click on the host click on what you want to connect to and I'll pull it all together yeah I can do that with it I'll do that today before I would help and I'll be a great lunch break in but that would help with these headers a lot you know you can connect them like I say you know probably what I would do if I had to connect to this is I would just draw a pipe you know so you throw it in here and then use the delete pipe you know and I pull it together but that isn't always that easy if you're in a section view if you're you know if you have a lot of stuff going on it can be a real pain but that's our headers that's where we're going with those so anybody that has any opinion on headers and thoughts that hey you know what you'd do this Ian had a great thing let's put some shade panels horizontally in here and stretch these nozzles so that's going to get put in there you know just let us know you know and we'll try to make that happen but we're coming down the nearing the end of the testing on this thing and getting it fleshed out so hopefully next week or somewhere in around that maybe the following week we'll have it done there's a little bit of work that's going to be revolved required on Ricky's part and next part to be able to get these things to schedule correctly for the bomb not sure exactly how all that's going to function yet but we're just about

done with the functionality on this thing that it's going to work correctly so I thought that was pretty cool the biggest thing that like I said it's the ability to add to these parameters in here I don't know if everybody do that but so if I want to add a foot or add some oddball dimension I can come down here and you know just hit Plus right and then type in 'probably you know one for you know some decimal inch right and then it goes so hopefully that helps a lot of people I've seen you know a lot of people are using the calculator and then these you know 161 by 256 that's a hard fraction to add sometimes so hopefully that helps you out a lot the others doing other things

Toolbar	Procurement tool	Material	Organization	Stainless Steel	Using VIC SS to distinguish Stainless Steel in BOM	15:45
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Going to take only a minute here I wanted to talk about stainless so we're going to review our stainless content again let me pull up this email here I have just a quick opinion survey on this thing so over two years for building material we've done a lot of different things for stainless actually how many we're going to pull that door I have a little section of pipe I drew here so I'm going to run the procurement school on this and just see what we get so inside here years ago when I always did like a lot of industrial jobs we did a lot of stainless projects and just to keep the material organized I always put Vic SS in front of it whether you know the coupling was an 89 it's for stainless system but it's you know obviously it's on a stainless steel coupling but it would be part of a stainless steel product category and that way in on my bill material if I'm resorting alphabetical we put them all together and keep things really organized I'm under the conclusion or I'm under the belief that we should probably do that and I see if there's any people that see an a jury issue with having a saying Vic SS coupling style 89 even though that's not a stainless steel coupling but it is for stainless steel pipe typically you know whenever we have a stainless steel coupling it would always have the S at the end of it I like to know if there's going to be any issues with that I know might talk to me about it he had some questions and why that are stating let's see if I bring over this page why are 89 has SS in the front but I all honestly think that that's a good thing I just want to see what everybody else thinks Ralph with this coupling have separate part numbers for the part number profiles yeah they would have to because they have a different description yeah well I'm just would that be like a duplicate coupling then or a duplicate part number know what while have to do is if we had since we're changing the descriptions we're going to have to rework some of these car code profiles the problem is that I'm looking at this build material for stainless and to me it's all over the map it's ugly I want to see consistency across every piece I'm even looking at Vic 90 and it says Vic 9 oh not Nick 90 you know and then a lot of times I check but we used to put - SS at the end I could see or is there no space in theirs which we 410 SS you know I'm just you know consistency across so here we have you know it's yeah you know I'm saying so here is Vic IPs stainless steel but then here your dick stainless feel and here's the couple 89 so it's is that are up some room for improvement yeah so as far as the part number of profiles go it doesn't hurt to have multiple versions of the description let's say at some point we flip to a different description format and we say we're putting the SS at the end or we put it back at the beginning or something it doesn't hurt to have both of those descriptions linked to the right part number it just makes the makes it compatible both the old and the new format and then yeah that's a good point good point so um yeah I don't know if anybody's if you have to think about it on what but I would like to have an answer today sometime on what you guys want to see for descriptions for stainless because I want to put this stainless steel to bed once and for all let's say if I have a question how would about three or four 316 how is that distinguished yeah well that's a good question that's

actually goes into something else I'd like to see on this thing and I'd like to actually see that we'd have a description like a BOM description parameter that's like an appendix or like a suffix I should say we do not work like what we went through with HDPE with the different dr ratings yeah we're I think was different families but yeah I mean we just like tech boxes in there and everything but that's the to get ugly as well I'm trying to think so we had 304 we I think for the HDP we actually have distinct families for each D our rating I don't know if that's where you want to go for stainless but I think that's how we work that out yeah we had that kind of the same like anchored right excuse me you'd have check boxes for 316 stainless so if you selected an entire product line you would have to select it by fitting by fitting or you'd have to have duplicate fittings 1 4 3 or 4 and 1/4 3/16 that's my pepper 2 HTTP I think that is how we did it I know that's a lot more to manage but my understanding is that that's what we did for all the different yeah so what happens there if I if I create separate families for 3 or 4 or 3 16 that means you're going to have to remodel the project if it changes or if you're not if you put in the wrong one if we make it an option on as a checkbox it's a lot easier to apply it but you're going to have to apply it everywhere every time so that's sort of a pain as well we can do a type so that would be probably a good instance a good a good wicked can we do a type yeah I can do a type on that so we could do instead of a theme standard we could have a type 4 304 and a type 4 316 and you would just change types and it would update it that's an option none of them are really good let me say that the other option would be is that you can put a we could put something in the tool that would append maybe another field on the end of this but then when you're running schedules you wouldn't be able to do that in the schedule so that's you have to create another column for the material which I guess we could do now so you could have material column in here when you're doing stainless projects and then it would say 304 316 that's another option as well but then when you probably get into the product selector or the dashboard none of that's going to come across correctly and I doubt the so yeah there's a lot of issues here and there on this thing so often I guess we'll end up having to do is probably put in a checkbox in like we did for HDPE and then follow suit with that and but you're going to have to manually go through all the fittings and select them that's the problem I'm pretty sure for the HCP actually have distinct families now for the different dr ratings so we're not there's no checkboxes for one for that so when you model maybe that's not the best way fading then you have to basically change everything out right we haven't run into B you're right I'm just still pretty new we haven't run into that case yet but maybe you're right yeah it wouldn't be I mean so you have to basically come in here change it out yeah depending on your scenario you can see whether I have like a mop frost yet I doesn't have to change them yeah but that's where it stands so again I don't know if that's what you want to go with that if there's a better way for DHCP but that's how we resolved it well actually so let's think about this for a second the stainless steel on whether it's cereal four and 3/16 that technically could be applied by the barcode profile so if you if you select the park own profile for 304 all the park codes are going to get applied for 304 if you selected for 316 they'll get applied for 316 so on our material lists using this the product selector it's going to be correct at that point the bow material descriptions on maybe a spool we'll just list out the coupling but the actual part numbers would be correct it's a good one because we don't put all the finishes in all the products right so if we have a galvanizing system if we have a you know specific paint system or something you know we you're couplings we don't list all that stuff out when off different families for all that and the main reason we don't do that is because it becomes a it becomes it gets to a point where it's not sustainable you know we'll never instead of that editing one elbow we'll have 20 elbows to edit and we'll never get past the IPS line at that point so yeah we're going out the thing about that the descriptions first half of descriptions that's really what I want to worry about right now so let's if

anybody has any comments any um opinion on that as far as what to put in you know whether it should say Vick stainless steel Vick SS on there or Vicks stainless or we put in something else or don't let me know and I want to lay these out all the descriptions for that product right now and get them updated so they're consistent across the board I was just thinking like Revit wise it would be possible to keep that consistent for filtering so you know I can create a filter that says if the description bottom ends with SS or begins with Viki SS or something like that right yeah that's one of the reasons why we put the like big assets in the front because then it was consistent across the board as I saw that like there is a coupling that said Nick IPSS that's what I want to fix and that feels really work yeah that's why I want to fix that's why I bring in the problem up because I want to straighten that out I want to have it that when I come in here everything is going to say Vic access if it's for stainless system straight down through all the pieces so that what that does is then you know all the stainless pieces for stainless systems are all together no matter you know this is an 89 coupling if anybody's not familiar that's technically a ductile iron coupling with a galvanized coating but it's for stainless steel pipe yeah that's why we just straighten this out so we can use simple filters organizers would you do the same thing for HTTP then like Vic HDPE 90 Vic HCP coupling 905 yeah very same thing so if we don't have consistency there I want to straighten that out as well yeah there's no consistency it there's no consistency especially with the older couplings like the 997 and the 995 that we still use there's not there's no consistency yeah so we'll straighten that out I will say

Toolbar	Content Center	Settings	Updating	Family	Settings change for notification of content updates	27:00
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there's one last thing I found now last week we totally updated all the content center content and one thing I don't know if people realize but within content center or within your toolbar let's say I come up here and I pick on an awl AWWA elbow I'm in a blank template it was absolutely nothing in here so you can see here I'm pulling from the toolbar on AWWA elbow and I'm dropping it in right so that that elbow came from the library on my pc inside this computer and I've had the colic tool so Revit installed on here forever the way we have the code written and it's the way it is and it's correct the way it is because we cannot modify families that customers are placing in projects because they may have modified them it's always going to pull whatever is on your computer well it's on my computer is probably not up to date for awwa so it pulled in an old elbow so if I come in here and I go to the procurement tool or actually going here to Content Center I should say I probably should see that my elbows out of date even though it wasn't never existed in this project yet and you can see it was an old elbow from 5:2 and we have a new one from 720 what I what I need to do is I need to update the family and then that will bring in the current version so that's something to be aware of that you know within the toolbar these components that are up here even if the family doesn't exist in your project it won't update it now we do have a setting for that and I'm going to show where we can change this and we probably now that we have our content Center up to date we may want to consider changing this setting inside your settings you'll see there's another Settings tab and then here it says notifying me of content updates okay by default we've had that turned off just because we didn't want to have a lot of problems with customers content but now we're getting things updated everywhere and we have consistent content across but we're probably going to do is come back and start turning this on at least internally here for us so if I click OK on that notify me a Content updates now when I come in here I know I'll know if something's not matching within my own library of components so I'm going to pick a reducing elbow boom so here it says you know an update is available for this family do I would I like to load the updated family ok right I

want the new stuff so I can come in here and click that and now I have the current latest up-to-date fitting so any basically any of these families inside the tool bar that that I don't use often I'll want to change that setting and now when I bring in the new family it's going to say hey there's anyone available click yet and place it all Ralph the next builder the toolbar will have matching updated families that get rolled out with it well when you install the update though it's not going to overwrite any of the existing families in your in your library though right I think it will well it hasn't oh good I'll have to check on that because I didn't think it would let's try again because let me see so you're telling me that if I come in here under the tool bar and I go into its grab another awwh don't use me as much so yeah the current one is unknown so it must be now you're also I'm talking we just posted the stuff the content center at the same time as I synced my local families on my development machine with what's already on content center so that 7:00 2017 family for that elbow head is now going to be rolled out with the Installer so all those families will get updated within that folder and a customer had taken the family and made some changes to it that's it's always been that way it's unfortunate for them that they left it in that folder okay I thought it did let's take it close they'll double check so I'll load the latest install on our own Safety's get updated but because the latest installer doesn't exist yet but it's coming to okay we'll see so hopefully this might be resolved double check on a per but that's only for the greatest hit I mean that's only for the stuff that's in the toolbar I mean you still want to check content center for templates and before you start a project check content center for the latest stuff yeah yep okay well yeah like I say we get billions installed I'll double check to make sure this if that's the way it is there and you know that's what we'll do are you there okay Ralph where our templates updated with all the most recent stuffs you said the content center was but I wasn't sure if the template was solo the template basically what we're doing there is we're deleting all we took all the content out of the template that isn't required so now everything that you need is going to come from content center okay we're trying to eliminate any content that's in any of our templates that isn't coming directly from content centered so hopefully then when we get this lady's installer it could end the problem because since we version two every family in the library everything's going to be current and up to date well it still contains all the families for like your routing preferences and delete pipe and stuff right yeah yeah we left those in but we updated them okay you open the template for the first time you shouldn't get anything that comes up even be updated where'd you get a point on it we haven't pushed those templates up yet we're just about ready to so probably have a couple people test them to make sure there isn't any problem but that's what we did okay well I got a step out I think Nick was going to show couple things and we'll talk next week thank you all right so

Dashboard	Sorting	Headers	ABOM	Moving	Check boxes to add, move and delete headers to BOM	34:00
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By popular demand you guys asked for let me click in here and let me hide it yeah there we go you guys asked for checkboxes in your headers and to be able to sort them by the header names now or whatever you want to do so that that's added to it which is I'm sure will help some people if not everybody and then you can when you're adding headers into a project or so you guys want to put them on your a bomb we have the check boxes now and you can select them and down here it says move checked headers to selected system and then this is all these are these are all of your systems that are in the project so we'll just select that one and move and it'll take a second and we will see when we go here it has the headers and if we click on the header button it will have it way and we have that put in

those headers that we had so I will actually believe all these out delete checked items and little click headers just to show that it works and we have none in in that a1 system move it again we have our header and then I'm sure with these checkboxes you guys may want more things I thought of after looking at Ian's computer screen it wouldn't be nice if I had like a delete multiple headers delete checked headers instead of going one by one and deleting them out so I think that would be the next thing to add into this and oh forget I made it move you can you can drag your thing around so does has anybody had any issues with headers or anything in particular that they've been working on or in the in the dashboard project management tool remembered that time anybody have any comments of any sort any question for you alright so if the initial quote has the headers in here so we go and we look at what they have for initial quote if we then change something like say an outlet changes are we adding outlet or whatever and we go and edit the header is there any record that the header was changed and what it was changed from a versioning of the header or anything like that a good question uh not in here but that maybe not a bad idea to have yeah what happens when you save it in a revision well it will save it I have to double-check and can confirm this but it saves as what it was so if you if you put this we'll just try it now so we have this with doing it live Vic outlet header with the 1/4 inch of four and a half of five so we're going to add this test riff okay so test drive is right there it has that header in it so we're going to come into here and we are going to edit this bad boy you know maybe you know CHWs one maybe they wanted a head my and my development tools open maybe they wanted to six more or two more six-inch outlets let me save this and it should only edit the one that is in the current so as you can see it added the two six-inch but if we come into here some of a gun it added the two six inch so that'll meet something to where it's a piece of paper throw it to this one so short-term it wouldn't edit the revision I'm thinking but it would be nice if we go into here and then click on it almost like you guys probably never seen this but very soon oh there's no wrong server but we I think something like this where you click on it and then it may show what it was at one point with all the previous versions of it does I think that would be pretty cool like you click on that and then you know that little pop out thing kind of like this would then show you know it was this at one point and this at one point and this at one point and then maybe you can go back to those or something to that extent I think that would be I think that would be a good thing to have that we can always go back and look and see what it previously was jotting the stuff Nick knows what he's going to be doing for the next couple weeks now yeah that's not a bad idea I can completely agree with that being able to see how it's changed through the life cycle of the project then I guess the only issue would be if you take out a header you know because you have them sequentially numbered that could cause potentially an issue maybe you know you have one two three four five but you take out three because they don't think you can use a tee there or something and I have one two four five that might get confusing for people maybe I'm not a hundred percent sure instead of remembering at one two three four but I mean I guess that would kind of be saved in the revision of it so left to have to do some testing around with it once I get it up and run it see ya see how it is anybody else have any questions comments concerns looks good anybody else have anything they want to show well later today I was hoping to get some of maybe Jim and IANS time because I have a working but it's working as far as I know I did the idea is to test it but saving project spool templates I think it's what we're going to call it project spool templates to the project on one machine and you know sink reading with central on a work shared program a project and opening up that same template on another machine is what it's a test I would like to do between two computers that both have c4r both have a common project and both have Revit 2018 if you guys can lend me a few minutes to do that sure

I can do that cool that's all I got all right then meeting adjourned okay thanks guys like Vic thank you
Nick