Inspections App Webinar 19 June 2024
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Welcome everyone to this webinar on the mXrap inspections app, I've got just a couple of little slides for you. Just like I said, background information sort of stuff.
So in case you're not familiar with mXrap, I think probably most of you are, but in case you're not, basically we're a broad-based geotechnical analysis platform. So, we cover a number of different areas within I guess the geotechnical fields. So, all of our apps sort of listed down below at the bottom here.
So a bunch of different things that we do today, we're going to be focusing on the inspections and data entry app. We are run by the Australian Centre for Geomechanics. So we're a not-for-profit and sort of any.
Licence fees that you pay to use MXrap go back into developing the software and making it even better on the right here is just a little map of all our different sites throughout the world, which is fun.
So when we're developing this app.
Basically, we found a problem that a lot of mines are basically doing their data collection. Things like geotechnical data, QA, QC, inspections, that sort of stuff, a pretty manual or basic manner, like a lot of sites are doing this on a pen and paper underground.
And then coming back up to surface and maybe putting it in like an excel sheet or something like that. So that's resulting in a lot of double handling, also the potential for lost data. You know if it's just on a piece of paper, that piece of paper can get lost and.
You never see it again.
And then at the end of the day, you have no database to do your analysis on. It's on a piece of paper. Like I said, maybe it's put into an excel sheet somewhere, but it's not in a nice, structured database that you can do any analysis on and really do anything nice with that data.
So yeah, a lot of time loss and not a lot of value created from doing things that way.

So, we thought you know we can do things better. So, our solution is basically a data tool data entry tool that's digital.
Simple and the big part of that is fully customizable as well, so some of you might be familiar with our damage mapping app. So, after we've created the damage mapping app, we sort of showed some sites and a bunch of people were asking us questions like, oh, can you do this with it? Can you do that with it? A bunch of stuff that it wasn't really designed for.
What we tried to do we sort of thought about all these things that people had asked us and because they were so varied and there's so many different things people wanted to do with it, we decided, OK, we needed to make a tool that we could do basically anything with.
And so that's what that's what this inspections app is. It's basically a cousin to the damage mapping app. It works in a kind of similar way, but is built in a way that allows us to, like I said, essentially be flexible and do anything with it.
It is tablet based, so when I say tablet based it really can work on any device that has a web browser, but it is designed so that layout and things like that is sort of optimised for a tablet. But you can use it on a phone or laptop or whatever you want, and it just runs in a web browser.
And below is just a really simplified sort of.
I guess deployment diagram of how it works. So, you have your tablet which does the data entry, tablet or other device and that speaks to a little server. So, what we do is we set up a little server on your my network usually that's owned by site it and some sites already have a machine that can serve can basically be used as the server and that that server speaks to the tablet and gives the tablet the data it needs and the tablet. Once you've done your mapping, we'll send it back to the server.
And that server also speaks to MXrap side, so it dumps a bunch of files which MXrap will then read and then you can do your analysis. Look at all your charts and 3D views and whatnot in the actual MXrap programme. Now I mentioned that it's works in a web browser. A key part of that is that we've set it up so that you can take it offline. So basically, the idea is before you go underground, you make sure the tablet's spoken to the server, so it's got all the data it needs. Then you can take that tablet offline, go underground, do your mapping. All of that will work offline.
You take it back up to the surface, you connect back up to the network, it will sync with the server and then it'll download all that data to MXrap. So, like I said, the fact that it's in a web browser is just to make it device agnostic. So essentially it can be

used on any type of device, you know, iOS, Android or Windows device, anything with a web browser. It should be able to be used. So, it's it is flexible in that way.
And that's all I have for this little presentation. Like I said, it was just a little bit of background information. So now I'm going to run through the app itself and what it does. So, the first step I'm just going to show you very briefly, you don't really need to know too much about this because typically like I said, we sort of set this up with your site it. But this is the actual server, we call it the web form server.
And basically this is the root folder. I have it set up on and it'll generate a little.
URL for us how often we will set this URL up so that it so you can see it. It just has an IP address in there. But basically, typically we will set this up so that.
This name is basically your mine's name, so it's a bit easier to use so to basically access all of your web form so you can see at the moment we have five web forms or six. Sorry six web forms set up for this particular example. To access all of those, you'll just need to go to a particular URL, particular website name. And like I said, usually that'll be like myname.a.mxwrapservice.com and then these numbers after it and you'll see the list of your different data entry.
Forms basically there.
So there's a few that I'm going to go through today, a few different examples because like I mentioned this this form is sort of the inspections app is fully customizable. We can kind of do anything with it and we can set up multiple different data entry forms on one line so we can set up different forms for different reasons, different purposes. So, the first one, I'm going to go through is these inspections one. So, this is an example actually from an actual mine that's using this app already.
But I've just, as you can see with my phone names. I basically just try to anonymize the data a little bit, but basically yeah, this is just an example of what a mine is doing at the moment in terms of just general geotechnical inspections, they're sort of heading inspections when they go on the ground, do their everyday workplace inspections, they're filling out the sheet every time. So, there's some basic information that's included in essentially all of the reports that we sort of create.
So things like who is collecting the data.
Title of the report so you can find out later.
Understand what? You know what that report is all about the date. So, by default it defaults to whatever the current date is. But you can always back date reports to. You know if you if you have a report that you did in the past.

Photos and sketches. So, this is a key part as well, so you can attach photos directly from the tablet itself. So, if you're taking photos with the tablet or you have photos already on the tablet, you can.
Include those. So, I'm just going to attach a photo that I have here. Previously I attach a photo like so and you can see it's attached that photo.
We can also add a sketch, so if I press the add sketch button I can generate a sketch. And sketch whatever I want on there like so.
And give the sketch a name.
And another thing I can do is I can sketch on the image, so the this is the photo that I uploaded earlier. I can press sketch on this and then I can do my sketch on that image and draw things. You know trace structures or whatever I want on that image as well. And there's a few options in terms of saving quality and things like that. But there we go. I've attached a few images like so.
They have things like more notes that you can type in.
And then underneath here is all of the sort of customizable fields. So, these are all fields that the mine set up for us in a lot of cases, at least at the moment. What we're doing with these data entry fields is we're basically just taking the paper form that the miners given us and we're going to convert that to a digital form in some cases, mines are using that as an opportunity to basically refine their forms and they say, hey, we don't actually need this field.
Actually like to add this other field and you can see a few of the different field types that we have. So, we have things like selection fields where you're choosing one of multiple options. So in this case you know which part of the mine it's in which level we're talking about.
Which drive name?
And if it's near a stop, which dope it is.
Previously this mine was in order to sort of geolocate, you know, understand exactly where they are. They were putting in a survey reference point and the distance they were from that survey reference point, but they're not really using this anymore because we have another way to geolocate which we'll go through in a minute. So, the mines not really using these fields anymore.
Reason for inspection is it just like a routine inspection or was it, you know, did someone request it? Was there a seismic event, that sort of thing?
What observations they saw, so you know what different things they were seeing in here and they can type some extra details about observations.

When did the thing that calls the inspection happen? That sort of thing? And again, more details.
What triggered this, and I believe so. This is an example of a different kind of field where I believe it's a multi selection, yes. So, you can see in these ones further up I can only choose one of these different options. But in this trigger field I can actually choose multiple and I'll on the MXrap side you'll be able to see multiple different answers. So, we can choose multiple options in there.
Whether or not the site needs to follow up and you know rehab or some other sort of action and.
What the action needs to be?
In here. So that's the basic details for that for this inspection report, there is a as I mentioned earlier, there's a way to geolocate this data. So, what the way we do that is we select our level. So, you can see there's a bunch of levels that the mine has filled in here.
And we go in here and we basically draw a line along where we're doing our inspection so I can draw a polyline like so. And I can say my inspection went sort of along here and along this drive like, so I say that's where my inspection was.
And that's basically all we have for this particular report. You'll see in a moment for other reports, we can actually attach data to specific segments of this polyline, but I believe for this, for this report, it's all just one, just one big report, all the information and just saying where we did this particular inspection.
So once I'm finished with all of my data entry, I can go back and edit and some of this data. But if I'm happy with all of that, I can submit my report and it's going to say, are you sure you'd like to submit this report? I will hit the submit button and you can see on the right hand side here it gives me a little status update to say it saved that report locally, which is what you'll see when you're offline and when you are connected to the server, it will give you that second little pop up there to say it's submitted that report to the server.
Once you've entered some data, you can see that data in the previous report. So either whether you and if you've entered it on that device or if it's been pulled through the MXrap system and added to the database, you should see it in this previous report section so you can see there's the report that I just entered and if I go in there you can see all of this. All of the data that I've entered there, you can see all of that.
Another nice thing about this is we can go, and we can create a PDF out of this.

So it saves generally pretty nicely to PDFFI control P to print. I can hit the save as PDF button. I'll save that in a location here.
I'll just save it onto my desktop or something.
And when I open that up in a moment.
You will see that PDF.
There we go. There's a PDF of my form that I filled in and you can see all of the data that I've entered in that form like so. So, if you need to generate reports that you know, you just need to send to a manager or whatever it is, or you can save that in a folder wherever you want. All of that Data's captured that way.
So that's part of the functionality there. And as I mentioned, you can see all your past data in there.
I'm hoping to add a few more features to that previous reports option so you can filter that list and find more easily different of your previous reports basically.
That's pretty much all for this first type of inspection report that I'm going to show you. I'll show you a few more examples now of different types of data collection reports, so I'll just go back to the sort of home screen for our different data collections and we'll go through our QA, QC inspection report. So, the same one again.
But this time they are, like I said, similar stuff, but instead of doing a sort of general heading inspection, this is a specific QA, QC or quality assurance, quality control inspection. So you can see a lot of the same background data that they're including in there, including, you know, mine level heading name, that sort of thing.
But then the inspection stuff at the bottom is a little bit different, so they're doing things like which grant support standard needs to be installed.
Are the bolt angles within 10 degrees height of mesh? That's the mesh overlap OK, that sort of stuff. So again, pretty simple stuff, but this the stuff they need to be collecting for their QA QC.
The enter all of that and at the bottom again they can select their level and say where that inspection occurred.
So yeah, just another example of different things that people can do with that.
And I'll show you a third example here. So, this was a form that was actually developed by us. So, this was a form designed for mapping of queue. So, sort of broad window mapping, quick assessment of your rock Max classification. So again, that basic information report title, date, that sort of stuff.
But you can see there's no more information on that sort of top level of the report.

Everything else, as you're going to see in a moment, is going to be.
Included. So, this is my.
This is going to be my oops. I can spell Q mapping. There we go. This is going to all be the top. The only top-level information we include here, but you're going to see more details are going to be included on that polyline here. So, if I go and select a particular level.
And I go and draw my polyline on this level. So, this is. I'm basically saying this is where I'm doing my mapping. This is where I'm doing my rock mass classification along this wall like so and then I'm going to select the different segments. So, this first segment I'm going to say, OK, I'm going to do my rock mass classification on this first segment here. I can put in my RQD I can type that in or I can use the slider to choose an RQD choose a number of join sets. So, say two join sets or two plus random.
How many? How much water I'm seeing, so most of the time we're dry. What my SRF is lithology in here.
And then critical joint set so I can choose of course when we're doing rock mouse classification, it's always for a specific critical join set. So, the dip and dip direction of that joint set, we just included that. So, it makes it easier to understand, you know which joints that you picked for that classification. In that case the alteration I should point out that that critical joint set is an optional field as well. So, you can notice here we have little stars next to specific fields. So those are mandatory fields. The If you try and submit the report without entering those, you'll get a little warning and saying hey, you haven't filled in all of the fields.
But if you have filled in all of those mandatory fields, you won't get that warning and it won't give you that warning for the optional fields like these ones up here. So, I can put in my alteration so no alteration will say planar and rough, and then I can move on to my next segment here.
So I can put in my, you know, arcade join sets, water, et cetera. Just fill in my rock mask classification for all of that as well. I'll just choose whatever.
And the last segment here as well.
Very quickly enter all of that stuff.
And then I've entered my data for all of my segments so I can submit my report. I'll press the submit button and you can see it's submitted that report again to my server and it's going to go into the MXrap side.
So I will show you a tiny bit of the back end of how we customise these fields, not

because most people are going to do that, but I do want to show you that it is possible if you have a little bit of I guess experience, it is possible to.
Do it yourself if you wanted to.
Or if you just wanted to adjust something slightly, you say, oh, one of those different options. I just want to change the name of it or add another one. It is actually quite simple to do yourself so.
Inside the MXrap root folder. So, say for that inspections option, I go to data and there is this file, this site config file determines basically everything that goes into that customised web form. So, if I go and edit that data, that file here I'll just open it up and pull it across.
You can see I'm not going to go through all of this, but you can see the different columns going in here and here are the different inputs. So, say I wanted to change. The different reasons for inspection say I wanted to remove this seismic event, one I just removed that out of the list and that will update in my web form the next time I reload that page on the tablet. So it's relatively easy to customise this form.
Like I said, especially if you just wanted to make small changes, that sort of thing. The epidemics wrap side can be slightly more complicated depending on what you're doing, but again, if you have a bit of experience building apps in mXrap, you may be able to do that yourself as well.
That's most of what I was going to go through on the I guess the data collection, the data entry side on the tablet we are working on a few upgrades for this app. Basically as we speak, there's a few different data entry types we wanted to add. So, things like table style of data entry, I'm trying to remember what else we were trying to do, just trying to streamline that data entry on the polylines, things like that. But yeah, it's sort of continuous development going on with this app.
We decided this was a good point to have in our webinar because we have a nice sort of stable first version. We've had a few mines tested out fairly extensively and they're quite happy with the way it's working, so we're sort of happy to go out to everyone and say, you know, if you're interested in this, we can help set things up for you.
Before I move on to the MXraps, so I do we have any questions from the audience because it's probably a good point to pause and ask if anyone has any questions on what we've seen so far. I did see we have a few people that have joined in.
A little bit after we began. So, if you have any, if you missed anything at the start and you have any questions, please go ahead and ask it. Now. I think you probably need

to ask it in the chat. I think by default, everybody's muted. So you might need to type in the chat if you have any questions.
A question from Will can you use the compass clinometer from the table?
I'm not entirely sure exactly what you mean by that, will.
Exactly what you mean by compass clinometer do you mean like for those segments of the polyline? Are you asking do we know the orientation of that or the tablet inbuilt gyro? Yeah. So, for this particular form at the moment, we don't have that functionality in it. We do have a specific line mapping form which is meant for, I guess like very detailed like your systematic line mapping. We can use the inbuilt. Jarrah inside of the tablet to.
The dip and dip direction, that sort of thing.
We haven't built that into this form. We probably will add it as a feature in the future. At the moment that so, for example, that Q mapping form the dip and dip direction is meant to be just like a very quick, you know, rough dip, dip direction. So, you know which joint set it is. So it didn't need to be exact, but yeah, that's something that it is a feature we would like to add to this particular form if you wanted to do that like systematic joint by joint mapping, we do have that option in that data entry form. But yeah, good suggestion, something we will definitely be adding in the future.
It is a nice feature like on the set on the line mapping you just put the tablet against the joint, push the button and it records the dip direction.
Yes, another good question.
There from Bill. The best way to get to photos onto your own file system on the surface. So, I'll show you that on the MXrap side. So basically, generally the best way is if you're happy to take the photos with the tablet that just sort of does everything for you, it just automatically attaches that photo to the report. It's all kind of saved together and linked, but we do have a way that you can link that after the fact if you're if you're nice SLR camera you want to take those high-quality photos.
You can link those back to your reports quite nicely. I'll show you that in a minute. On the MXrap side.
Revisions once you submit in your revised while still undergo at the moment there's no way. There's no easy way to revise those forms while you're still underground. That's another feature that's pretty high up on the list. It's like second down on the list of things we're planning to add. So, in these previous reports part, once you select one of those reports, the idea is that you'll be able to edit that data.
Through this this you know, while you're underground basically on the tablet, be able

to edit that data. At the moment we haven't added that functionality in, but that's coming in the near future to be able to just you know quickly edit that data. If you've realised you made a mistake, that sort of thing.
Bill's photo good questions today.
Anybody else have any questions before we move on to the MXrap side?
She's asking it can be used offline.
Yeah. So, it can be used offline. What's the difference between this and fast field for normal inspections? I haven't used fastfield a whole lot. I guess one of the big things is that I'm not sure about the fast field in terms of the georeferencing. So, like I said, you got that little polyline, that's all Geo reference you have that information spatially. So, you have XYZ nice little polyline if your entire inspection. The other thing is you have that database in MXrap. You can do further analysis on that, which we'll go through in a moment.
But yeah, so you can sort of customise that in any different way that you want I suppose. And then the nice thing about it at the fast field, I'm not 100% sure, but I think that might be a web based.
Programme. I'm not sure in terms of the data handling, so one thing that we have set up with this is that it is supposed to be all run through my network. So, in terms of security that Data's never leaving your network. So, your it people will hopefully be happy about that. In terms of data security, especially if you have inspections of something that might be.
A bit sensitive. Then you know you're not saving that to external servers and things like that.
Yeah.
Connectivity to other software such as CAD, yeah. So, we can definitely connect it to things like Deswik or other mine planning software. So, it's just a matter of exactly what you want generated. But typically, what we do is those little polylines, again, like I said, we have those in 3D space. So, we can save those into a desk format with whatever attributes you want to you know, add them, add on to them. So whatever critical attributes you want to include, we can save those with those attributes. So, you can pull them into you know your Deswik or other mine planning software.
And then use from there basically.
Is it possible to view all inspections done at a certain time on a 2D or 3D map? Yep. So, on the MXrap side, we'll go through that in a moment. You can see all of that.
So yeah, it's a nice lead in question. Any other questions before we move on?

Alright, we'll take that as a no and we'll show you the Amex wrap site because we had a few questions which will be answered here. So, the MXrap side, this is the inspections app in MXrap as I mentioned before, a lot of this stuff is fully customizable. So, we can basically do whatever you want with the data in MX, wrap, the data's all there. It's just a matter of building the tools for it. So, this is an example of again what this mine was doing. I'll just turn on the different survey files there. Turn those on so you can see and you can see a few of those polylines for those inspections there where they've done some of those inspections.
So as I mentioned there you can see them in 3D.
Those polylines on the surface there and the dates of those reports, so currently those reports are coloured by date, but we can colour them by other things. If you wanted to. So, colour them by whatever field is in those, you know whatever data you've collected along those and you'll see other examples of that in a moment. But at the moment we're just currently colouring by date.
And.
At the moment we have the inspections and QA QC, so the general inspection and QA, QC inspections on the 13D view, but we can separate them out.
Sort of. However, you want. Like I said, I just want to make it super obvious. We can kind of do whatever we want in this space. It's all customizable. It's all possible to do whatever you want with it on the left-hand side we have a few filters, some basic filters which we always include are things like date. So, if I filter by date and I make this newer, you'll see as I change the date. These inspections change so you can see the different dates changing as I go on. And those inspections and appearing and disappearing as I.
Asked those data ranges. I can also filter to say show me only specific reports. So, if I only want to see the last few that I did, I take those on and we'll see those show up. Those are not the ones that I'm seeing, but if I turn them all on, you'll see those are the ones there.
They also have a few other.
This might also have a few other filters that they wanted to include. So, for example a level filter. So, if I only want to see the inspections on particular levels, I'll only see those.
And it'll be more obvious once I get it. I'll go to a table here. You'll see it a little bit better.
What's included in in? Well, how do these filters work basically? So, if I open up this

table here you see a table of all of my inspection reports. So, we've got all of the fields that were included in that inspection report like so.
Just different columns, that sort of thing.
And who's? You know, who did it? Mine level that sort of stuff. And as I adjust these filters, you'll see the filters the table adjust like so.
They also have a filter for strobe, so you can just type in something. So, say I wanted to look at 1855, there we go. We can see all the styes filtered down to just those. The ones that include that text, that sort of stuff. So again.
We can set that up. However, if you want whatever filters you want to include that sort of stuff, we can colour the different cells in here by different logic. That sort of stuff. So yeah, again, we can kind of do whatever you imagine whatever you want with this sort of stuff.
On the chart side, we can also include some charts. So, this is a chart that mine used quite a bit, basically just how many inspections they're doing per month and they can colour it by different fields here. So, at the moment it's coloured by the reason for inspection. So, you can see the breakdown of that.
Uh, for each month. I don't know why I have some data missing in the middle here. I don't know if that's actually a gap or when I was putting together this data set. I just removed some stuff by accident but anyways so you can see how many inspections were done for each month for this specific data set.
So just an example of something that you could be using in your sort of monthly reporting to include how many inspections were done each month or you know how many things for example needed to follow up each month that sort of stuff?
Yeah, just a few nice little examples of how this app is currently being used, but there's so many different ways that that it can be used.
Another thing that a few mines have talked to us about is having some automatically updating fields. So, another thing I should have mentioned as well is the data entry fields. You know the different questions that are being asked and the different answers they can be set by a CSV file so that CSV file can be actually updated by MXrap and things going in here. So, for example if you wanted to have all of your active headings, that's something that a particular mine is asking us for at the moment.
They want to have a list of all the active headings that they choose from. So instead of having to just like type and make sure they get the name right, they just want a list there of all the active headings so they have a file somewhere which specifies what

the active headings are and we can link the data entry all the different little button options to their active headings file from that.
So that's an example of, like I said, the 3D views, charts, tables and some of the different customization we can do with that. I'll go across here. So, you can see I've created a different window up here for the Q mapping.
Which I haven't actually set up, but I can open that up. You can see there's a few rows there where I've done my Q mapping. All of my JRJA values. You'll notice as well that when I was entering the form, I was entering things like unaltered or plain R steps. That sort of stuff. But I have a calculation in the back end here that converts those to JNJRJA, et cetera, and also the Q&Q prime are calculated all on the back end there. So that's just all automatically done for you. And as you can see in my 3D view here.
This is along my little polyline.
This is an example of where we've sort of done some mapping previously and you can see the queue values for that little section that we've mapped there. So yeah, just an example of how our results come in. Another thing I should have shown as well, previously if you need to import new reports, there's a little button there to import your reports. Once you're done, once you've added some new reports, you can just import those using that button.
Last of all, I guess is our photo section. So, on the left-hand side at the top here we've got our photos.
I can just choose, you know, for which.
Report type. I want to look at those photos. It'll show me the different reports I have in there. If I choose this one, you can see the photos pop up.
Uh, so those are the photos attached to that particular report. These are the ones I attached on a tablet earlier.
Can change the size of those to make it more obvious. So, Bill was asking earlier about attaching photos to a port later on. So, there's a couple of different ways we can do that. One is we can just attach a singular photo. So, if I go in here and I find my.
Pictures folder. I can attach a picture like so. Let's push this button. It'll attach that picture in there. I can also attach an entire folder or photo. So if I go and I select a folder, I press that button, you'll Add all of the photos in that folder.
Into here, it'll basically copy them into the MXrap side of the system.
Another thing that we can do is if you already have a nice filing system with all your

photos sort of sorted by level and drive and that sort of thing. Some mines don't want to mess up that system, so they want to just keep that same filing structure. What we can do is we can attach a link to that photos folder. So, you basically just browse to the specific folder you want so I can give you an example of that. I'm just going to browse. Just give me a moment.
Here I'm just going to browse to this folder. That's the photo folder with all of my photos in there. I browse for that, and I press this link button, so that's going to create a link between that folder and this report and you can see now I can see all of the photos within that folder showing up in here. So, you can, yeah, basically link those two together, but keep that same internal filing structure that you have previously as well. So those are all different options for including your photos. Basically can do it whichever way you want.
We don't have it set it off for this particular example, but we can set it up so that if you want to, you can, you know, choose a particular polyline that relates to a specific inspection and see the photos for that polyline. Again, we can sort of customise it in whichever way you want to really.
That's most of what we have there that's I guess a basic overview of the kind of stuff that you can do with this app.
And like I said, it's very flexible. We have people doing inspections, QA, QC. Mapping.
We even have a mine that's looking at doing so. They're crushing their pay samples and getting the technicians to enter their data entry from the pace UCS tests and in through a form like this. And it's getting sucked into the MX system, sucked into the paste.
Our paste analysis app in MXrap, so yeah, like I said, we can kind of do whatever you want in terms of data entry with this app, but we do have a few standard forms. I guess a couple of things, extra things I'll mention is we do charge a small fee for setting up these setting up these forms and the MXrap side of things just because we have to do it sort of custom for each mine because they are different unless you have multiple mines, you know within a company, they all want the same form then we can just copy paste those. But.
Yes, which charge a small setup fee, although there's no additional fee on top if you're already an MXrap user for using the app sort of ongoing.
And I think that's most of what I had to go through. Maybe Paulus or Laura, if I've missed something you can remind me of something else, I should talk about. But do

we have any other questions or any other things that I should cover, I suppose.
A lot of silence so far. Hopefully, that means I was clear.
Bill's asking about mapping, say for corrosion or something like that. I do attach data to only a line, or can there be polygons? At the moment all of the mapping is sort of limited to those polylines. We wanted to keep the keep the data entry as simple as possible. So yeah, all the data does have to be limited to those to those polylines they can be sort of split apart and things like that.
But yeah, that's basically the way that we're Geo referencing the data. But yeah, it can be any kind of mapping, corrosion, rock, mass classification basically whatever you want. Chris is asking in a large open pit environment; data management of inspection images becomes problematic. Can this pull XYZ data from drones and display on a map?
At the moment we can't display the image itself in 3D, but it is possible to select. Depending on exactly how the drone images are like stored and things like that, it would be possible to sort of show the map in 3D and select an area and show the photos from that area, so hopefully they'll be able to, I guess, achieve exactly what you're trying to do.
But yeah, so if we have some way to tag those tag those inspection spatially, then we would be able to pull that in.
Allison's asking is it possible to connect structures map that have a similar dip and dip direction in different areas for modelling as a big structure?
So it's something people have asked about before. We don't have AI guess a built-in feature for like modelling structures.
At the moment.
Something we could do is we could display those structures in like a steering if you wanted to see if they're lining up that sort of thing. But we don't have like a specific structure modelling.
That's a little bit, I guess, outside of our wheelhouse. That's probably a bit more of a something that people typically do in light leapfrog or something like that. So, at the moment, we don't have any features for that potentially something we might look at adding in the future.
But yeah, we don't have any structure modelling to sort of join up structures at the moment.
I got a question about attaching pull testing data. Yeah, for sure we have in mind that is using this app. I believe for pull testing or a predecessor to this app for pull

testing. So yeah, we can include pull testing data for this sort of thing in there for sure.
Uh, for underground we have development cut records. Is it possible to set an alarm for inspections for example 10 days after a cart send us an alarm to perform an inspection if it's not been done, send another alarm 14 days after the cut.
Yeah, for sure. So, we can set up that kind of automation. So as long as we have the data, we can do that. So yeah, we can definitely set up for each heading.
That's something it might ask us about doing, so we can set it up. So for each heading, if it's not been inspected within the last, you know whatever days it gives you a pop up to, say, an alarm and it can actually, you know, have sound and make it very, very, very obvious.
Set it up so that it alarms and tells you that that you need to inspect a certain area. Most mines would just like highlight on the table that sort of thing. But yeah, we can set it up, that sort of thing. Another thing, if there's a significant seismic event, could it highlight or drives around that seismic event and send us an alarm to perform us perform an inspection? Yeah, for sure. We've set up systems pretty similar to that in the past, highlighting areas that need an inspection. Yeah, that's definitely possible to do.
Yeah, I guess like I said, kind of anything's possible. It's all about, you know, the customisation and how much time we put into it, that sort of thing.
Uh Shawn was asking can we display this seismic event data? Yeah, for sure. The seismic event data's all in MX traps, so that's pretty trivial for us to add that in. Uh, if I wanted to do that right now, I could, but I don't want to show this mine. Seismic data, 'cause. I did promise them I would try and keep it some somewhat anonymized, but I could do that in about 10 seconds in this. In this particular case, it's really simple.
Can different mythology be attached to different levels to aid while mapping?
Trying to work out exactly what you're talking about. Are you talking about like visually seeing the lithology in the levels?
So like when you were when I was showing that level plan, I'll see if I can pull that up again in a moment.
Oh, here we go.
So you're talking about like displaying the lithologies in this map? Abdul Samad.
If that's what you're asking about, it is possible to do that. We have quite a bit of flexibility about how.

What's included in these images we can include?
We can include things like lithologies if you wanted to.
You can include survey stations in here as well if you wanted to as well. So, we can include the survey stations on the on the maps, that sort of thing. So yeah, so you can do that.
Do you have any PowerPoint or PDF regarding this inspection function? Yes. So, there's a couple different ways. One is we have that sort of built in.
Previous reports so this creates only if you save that to PDF, it creates a relatively nice sort of report format. It is possible as well for us to generate apdf.
Style form.
Sort of in a more.
Customise so if you wanted to match an existing template you had for example it is possible to do that. So we're doing that at the moment for one particular mine they wanted it to match the form that they're currently using, so we can match that, maybe not exactly, but pretty close.
We can from the MXrap side, generate a report that will create a like a little PDF that looks pretty similar to what you're currently using. So yeah, it is possible to do that for sure.
Stan asked. Has any plan to work for the rock mass data obtained through inspections to be integrated into other mXrap apps. You're slightly ahead of me, Stan, so that Q mapping template that I showed you. The plan is to actually pull that into the Rock mass data analyser. I just haven't got around to it because I'm too busy, unfortunately. But yeah, absolutely. The plan is to do that and hopefully it'll happen in the next couple of months. So yeah, we, yeah, we can. And even if you didn't want to use our specific, so the Q mapping template I showed you is, like I said, something that we developed. So, if you want to use that, we won't charge you to develop that because it's already there.
And that will have a link straight into the rock mass data analyser app. So, you can look into look at that data through your other MXrap apps. But if you wanted to use your own, you know specific template, you have different things you want to include in there. We can include that and also have a little a way to suck that into the other MXrap apps as well for sure.
Oh, she's asking. Do we have a PowerPoint or PDF to show the benefits of using it? Not at present. I do have, actually. Sorry, I do. I do have a little PowerPoint, which is which I showed at the Washington Ground Control Group A couple of months ago.

So, I can send you that PowerPoint. The other thing is this webinar will be recorded. So, if you want, we can send you the link so that they can watch this entire webinar. If they have a bit more time. But yeah, I can send you that that PowerPoint for sure. Bill's asking how often we repeat this webinar so we'll have another session this evening.
Uh, so 8:30 PM Australian western time. So, if they wanted to watch that particular 1. Otherwise yeah, we have the recording of this. They can watch that or if you want that PowerPoint, which is a tiny bit outdated, it's from a few months ago, but it's basically the same sort of content in here, just a little bit stripped down. I can send you that as well. Just ask me.
Any other questions?
Will the database file size be an issue with lots of photos attached? Will it slow the software speed so it won't be the way the photos are stored is essentially just in a file structure, so see if I can pull that up. Just give me a moment.
This is where the photos are stored, so they're basically just stored with an ID with the photos in there, and so they're not in, just like one big database file. So, when MXrap tries to open up the photos.
It goes and looks for this specific folder and only the photos in there, so it doesn't slow things down at all. The amount of photos in there. The only thing that slows down is if you ever want to like back up all of that stuff. Obviously, you need to back up all of the photos so that slows things down a little bit, but if you're doing regular backups then you're not adding too much on the end of that either. In terms of database file sizes, this inspection stuff is generally very lightweight. Most of the data is text. Apart from the photos, which, like I said, are sort of.
Individually anyway. So yeah, we don't really have any issues with speed for this app, which is great.
Can we insert the drill hole database to the app to help compare the line mapping with some data from the call log? And yeah, for sure if you have your data and MXrap again, that's very easy for us to do. We just pull it in. That's a 5-minute job to add that in and.
And yeah, you can compare your call logging data with your line mapping, that sort of stuff.
Can RDP theory be used during the inspection? Yeah, we can build whatever we want into those inspections so.
Yeah, whatever you want to include, we can include the RDP different fields. If you

wanted to include that. Yeah, we can do whatever we want. Really.
Can we import the historical mapping data inspection to the software, so you don't lose your previous database?
Generally, the answer to that is yes. We have done that for mines in the past.
The biggest question is whether your previous database is going to match what you want to do going forward. If you want to do very different things, obviously there's a bit of a mismatch there, but if you want to do basically the same thing, we should be able to import that. Of course, there's a, you know, I will say it depends. It depends on what format your database is.
Databases in.
That sort of thing. But broadly, the answer is yes. We're generally pretty good at being able to pull in whatever you've got existing and like I said, we've done it for several mines before. So, we should be able to do that. And just how big of a job just depends on the structure of that database and things like that. But for if it's just so a lot of mines there, existing databases, just like an Excel file, that's generally very easy for us to do.
Any other questions before we wrap up?
Looks like we might hit might have hit the end of the questions. Lots of questions today, which I love to see. It means that people are interested.
I didn't make you fall asleep, so that's a good sign.
Well, we'll have a rap song to promote this. Not at this stage, but you can go ahead and write one if you want. Bill.
Seems like we've hit the end. So, thanks everyone for attending. As I mentioned, we are hopefully this recording will have worked. If not, we'll make sure we sort that out for the evening session. So, you'll have access to that. We'll send out an e-mail, we might even get something automatic. So, you should be able to access this after the fact and.
Yeah. Thanks everyone for attending. And if you're interested in this, you want to, you know, trial it at your mine, you want to things get set up.
Just send us an e-mail and we can give you more details.

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