00:00:06:12 - 00:00:22:11
Unknown
Is are our machines able to do what we want, when we want them to do it at the speeds and the capacities we need them to do it? We have on the the last element that spoke for us.

00:00:22:13 - 00:00:52:00
Unknown
We have great difficulty sourcing roles today, as evidenced in his presentation. We don't have loyalty to factories anymore into corporations. They have no problem calling out sick to do something else that they need to do. There's and it's different today. Then many of my customers are still on manual planning and scheduling. I've got one that they literally take their paperwork from S&P.

00:00:52:02 - 00:01:13:20
Unknown
Take that paperwork, give it to another person, and that person puts it into a secondary system. And then that prints out more paperwork. And then they give it to the technician to go out and do their work. Then they take that paper, give it back to the secondary program, enter into the system, it spits out a paper. They take that paper and put it back in the SAP manual.

00:01:13:20 - 00:01:39:04
Unknown
It's rough, but that that's literally how we're doing things sometimes. So our opportunity is we can combine maintenance based modules with a robust cmss and do it with all this paper. We automatic we want to be able to automatically create notifications. I haven't heard somebody mention it yet, but we really want to create a notification automatically from what we find in our remote based monitoring systems.

00:01:39:04 - 00:02:10:14
Unknown
Like let's say I have acceptance on my vibration, have that vibration system automatically create a worker so it closes the entire loop. And then we want to combine our lubrication routes in the comments or am. So what's red list? It's an AI powered solution. As a service platform for high critical industries. Key features are lubrication management, centralization of the maintenance stack, risk assessment, task generation, mobile first for technicians.

00:02:10:16 - 00:02:38:20
Unknown
Our goal here is to prevent failures from causing downtime. So once a CMS or an enterprise asset management system miss the backbone of what helps us do all our financials, our spare parts, our work order management, inventory tracking, reporting and analytics. And it really executes the day to day maintenance activities. We can do that with, with see it with red list.

00:02:38:20 - 00:03:04:22

Unknown
But many of my customers that I have worked with trying to get them to utilize red list they already have at SAP or some enterprise asset management in place, and it's much too it's too much to try to get rid of that. So what we're looking for is a marriage of red list and CMS. So Red list can handle the strategy and the peripherals, whereas CMS handles the execution of the work.

00:03:05:00 - 00:03:31:01
Unknown
So single source data flow reduce silos uptime gains. So no longer are we going to have six different passwords for all our different systems. But we can have red list capture all of that and give us a good picture of what's going on. So again, an example of this red list. A red list will identify the risk through our remote based monitoring systems and then automatically spit out of work order and CMS.

00:03:31:01 - 00:03:58:09
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Then we'll schedule all those fixes to send the guys out to go check on everything. And then we want to use API and low code, low input tools for making a bridge between the systems. So here's a high level integration of kind of what it looks like. So we've got red list and CBM data. Then we have our data export CMS m import and then a planner review.

00:03:58:11 - 00:04:26:08
Unknown
And this is really important because somebody has to look at the information and be able to decide okay is this legitimate. Is this what. Because what happens sometimes happens is let's say you have somebody and they they to them this line is super critical. So they'll put a level four out of 1 to 4 on it. Well, the planner needs to look at that and either agree or disagree with that.

00:04:26:08 - 00:04:50:01
Unknown
So it gets scheduled properly that oh no, we can actually make a plan for this. We can go out and put the kits together and we can put it on the schedule for next week. We can talk about it in the meeting on Thursday for the frozen weekly schedule for the next week. And it doesn't fall back on the maintenance manager as break down emergency work that that's that's what we're trying to mitigate here.

00:04:50:01 - 00:05:08:22
Unknown
And then it finally goes to tech assignment. The nice thing about Red list is it's no longer you hand them a piece of paper. It's all digitized on their little inbox on their iPad or their cell phone or whatever they're using out in the plant.

00:05:09:00 - 00:05:40:03
Unknown
All right. So here's just a this is just a small snapshot. But this is an example of how we would map the data between the different roles. So Red list feels to me like a failure mode and a task frequency. And then M8 I use this as an example because I spent about three and a half years with my previous company, Henkel, and one of my big tasks in the global maintenance program was getting SAP and M8.

00:05:40:07 - 00:06:14:06
Unknown
Those were the two that they handpicked. Well, we used SAP Oprah. That was their maintenance arm that they had decided to use, but we inset those up and, I was responsible for about 70 of their plants, so it was quite a bit of work. But, we were successful and then, I'll get into a little bit about the, the roadblocks I see with this type of thing and many other remote based monitoring trying to this automated systems.

00:06:14:08 - 00:06:34:23
Unknown
So the main equivalent is work order type. And then we have the schedule interval and then the planner's role is again restoring. And he's kind of the he or she are in kind of like the approval gate. So the planner is the one that's supposed to go out to the after the notification comes in, you go and investigate it and say, okay, I'm going to need these type of parts.

00:06:35:01 - 00:07:01:08
Unknown
I think the job is going to take this long. And then we put it into a plan. Pro tip is to use red list asset templates because those are already preloaded. So it will fix a lot of the time constraints and the time uses that we have. And we won't have to remake a new template every time we have a, we have an asset that we need to work on.

00:07:01:10 - 00:07:29:16
Unknown
So a big part of this is API. I know this is a buzzword in today's day and age, getting software to talk to itself. I'm not a software engineer, nor will I try to explain to you exactly how it works. But, we so we export on the red list side via API, and it sends a package of data in a universal format to whatever CMS or AEM we're using.

00:07:29:16 - 00:07:54:10
Unknown
And that's how we get the, communication, the third party software like Zapier, that's a good example of an API, API tunnel, if you will. Then we want to, definitely test on small sample sizes and scale. This is important to iterate or I mean, this is important to, emphasize when we're doing things on that.

00:07:54:11 - 00:08:15:23
Unknown
Our major, major changes. Of course, some places, depending on who they are, have to go through a mock or in a management of change process. But we want to kind of start small and prove out the concept before we put all of our resources into the entire place and realize we have a roadblock or a problem, because if we start small one plant, you know, we still see the roadblock and problem.

00:08:15:23 - 00:08:39:02
Unknown
But it's not huge, and we have to try to tackle it in a very large way. So on a high level, it's just red list and then API and then a CMS. All right. So we want to automate our workflows. And this is really important. So basically what happens is we identify and prioritize the asset. We plan for the repair gradual IT.

00:08:39:04 - 00:09:15:04
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Then we execute the repair we close out. And this is super important review and improve. And Tom earlier today was talking about making sure that we we review and we try to do a root cause analysis because if we don't and say we do awesome on the five, but we don't understand why our built for our steel peeler machine keeps breaking and turns out that we nobody's actually aligning the belt properly with a belt hog or similar device.

00:09:15:10 - 00:09:36:22
Unknown
When we're putting the new belt on, then we're we think we're doing a really good job because, hey, we get it. We've got this down to, down to a down to a science changing out this belt. But do we actually have to change that belt as frequently as we are? That that's a and you would be surprised at how many of my customers we go into.

00:09:36:22 - 00:09:56:11
Unknown
And I see a situation like, is this the way we have to do it? Or it should be done. And many times all this is the way it's been done forever, and this is what we're used to. Well, that doesn't necessarily mean you have to live life that way. There can, and sometimes is a very much better way to do things.

00:09:56:13 - 00:10:20:08
Unknown
All right. So we want to again automate our workflows, and read the syntax, the anomaly. And then auto generates a PD, a PM work order. And then we include notifications email or slack for planning and review. Then we definitely want to be able to handle bi directional sync. So CMS completion updates feed directly back into red list KPIs.

00:10:20:09 - 00:10:40:22
Unknown
We want to eliminate any any situation where we are having to switch windows, if you will, or hand something off to someone else to reenter it. In the computer, we want to close the loop on as much as we can, and that's why Red list is so great for doing that. It definitely has low low code builder for custom rules.

00:10:41:03 - 00:10:55:22
Unknown
So, this is great because then we can have special situations in a plant that can still be taken care of. So we want an event and then we have a trigger and then we have some sort of action.

00:10:56:00 - 00:11:15:10
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So then it comes to us to train and roll out. And this is a big part of what I dealt with in Henkel. So this is just an example. It can be obviously custom tailored for whatever the needs of the plant are, but we have a, one day session for planners and techs to realize the new workflows.

00:11:15:12 - 00:11:44:14
Unknown
Pilot would be like a one month on one site or one business unit, something like that. And then the KPIs to track this is my suggestion. Technical availability, labor utilization, PM compliance, work order, completion rate mean time between failure and then maintenance spend. Versus RV, which is another way of saying overall replacement value for the plant.

00:11:44:18 - 00:12:07:04
Unknown
So usually that one, that's a good indicator of how much you're having to fix stuff versus how much the whole plan is worth. And if that number gets too high, you need to look at instead of fixing things, you need to look at, Replacing it with capital expenditures and then a full rollout with planner led audits.

00:12:07:09 - 00:12:37:22
Unknown
Then we again with the ownership we want the planners to kind of take this whole thing on because they're they're more than just someone who puts a bunch of kits together. They help. They can either make or break a maintenance workflow because they understand, okay, here's how long this job should take. And they build room in so that the maintenance team isn't either under utilized or or over allocated, and then they're just running around with their heads cut off.

00:12:37:22 - 00:13:04:04
Unknown
And it's way too much work for a team to do. All right. So the maintenance planner role planners are a good bridge for strategy and operations. They validate the AI generated tasks. Again AI is

great, but we still have to have people looking at AI making judgment calls on it. So they monitor the KPIs, making sure they're accurate.

00:13:04:04 - 00:13:12:19
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And we're not missing or having some extra data that's in there that shouldn't be. And skewing our numbers, because that's.

00:13:12:21 - 00:13:34:06
Unknown
The plant managers and everybody, they want to see what's going on with the plant. And they knew that with their KPIs. Well, if we have spurious data, then the plant managers take that as well. That's the way it is. And if it's not that way, then we're either making ourselves look good when we have problems or look worse than we actually are, and we don't want to do that.

00:13:34:07 - 00:13:55:22
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We want to be as as clear and transparent as possible with how our plants and, maintenance programs are doing, and then read those dashboards again for real time visibility. In my experience, they're much easier to set up than trying to extract a whole bunch of information out of SAP and kind of making them. Power. BI is really, really powerful.

00:13:55:22 - 00:14:08:17
Unknown
But, in my experience, and this has been 2 or 3 years ago, but it was much harder to pull it out of sap than it was to use something like emit a red list.

00:14:08:19 - 00:14:36:09
Unknown
Okay, so real world impact. What can we expect when we marry these two systems? 15 to 25% reduction in unplanned downtime 10% cost savings. Integrating planning and scheduling can bring 95% on time PMS. And that's really what we're looking for. We want to make sure our PMS are on time, so that we are reducing the amount of breakdown maintenance.

00:14:36:11 - 00:15:02:02
Unknown
This is this is super key because before we start putting in, there is remote based monitoring systems. We have to make sure we have a good handle on our breakdown maintenance. Because if we don't and I've seen this happen in many plants, they spend all their time working on breakdown maintenance. And then they can these notifications and say, hey, this is going to be a problem in three, maybe six months.

00:15:02:04 - 00:15:23:10
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Well, they can't get to it because they're already fully allocated to breakdown maintenance. And then the eventually like it does the the bill. The bill comes due and the machine breaks. And then the plant manager is like, hey, we or the purchasing folks or we are spending $85,000 a year monitoring these systems. How can we didn't catch that?

00:15:23:10 - 00:15:49:09
Unknown
And it makes for a difficult conversation trying to explain why we weren't able to get to it. It's not necessarily the maintenance team's fault, because again, if we don't know what we don't know that there's a different way that we can live life a higher and better way. We don't unless we are shown that it's hard to see that and, have a driver for change, hours of paperwork and time.

00:15:49:09 - 00:16:19:01
Unknown
Can we allocate and task? I specifically asked one of my customers this last week. They're currently on SAP. I'm for those of you who do like and I'm not trying to I'm not trying to throw shade at it at all. I'm just trying to give a real world representation of what we're up against. He does about 2 to 3 hours a day of SAP paperwork just for work orders, and if he lets it go behind, he has to do about five and a day just to catch up.

00:16:19:03 - 00:16:50:21
Unknown
And that's that's a maintenance planner. He's like the planner slash schedule every day. That's what he has to do. To me. That's way too much. We're wasting time when we don't actually have to live life that way. So roadblocks and best practices over automation without maintenance basics in place. I can't stress this enough. Before you embark on changing things and trying to monitor everything, make sure you have the 6 to 8 weeks of maintenance backlog that you have.

00:16:50:21 - 00:17:32:01
Unknown
Planning and scheduling under under control that you have. You're tracking your breakdown, maintenance versus your PM compliance and all of those that you have. The maintenance workflow identified and how it how it's supposed to go for your plant. Make sure you have that, overcome data mapping, involve it as soon as possible. I've had two cases so far since we've had our own business where I have suggested that to companies, but they haven't done that, and then it's derailed the entire trying to put the software in, and to my detriment, because I don't I don't I'm not able to help the customer and to theirs too, because they don't get the help that they need.

00:17:32:03 - 00:17:59:15
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So start small and involve an entire site. Focus on the maintenance basics. Is the foundation again and annually review and improve. We want to track your adoption and consider who are

our true users. We don't want to say, oh, just make everybody in the plant able to use the system and work on and write a notification. No, let's let's figure out who really needs access and make the tiers that way.

00:17:59:17 - 00:18:25:07
Unknown
So extracting value, integrating read list. We want it. And plus the will give us proactive user led maintenance. And so again like our gentleman from our mining friend over here, he ran around and said, do it now. Do it now. Do it now. Today is the best day to take the steps to change the system.

00:18:25:07 - 00:18:36:00
Unknown
Reliability is, for your plants is 100% attainable with the right processes and software and methods in place and the right guidance system.