**1\_Unifying Business Processes Across Multiple Systems**

0:00
We good, we can.

0:03
All right, perfect.

0:03
Let's get started.

0:04
Well, good morning.

0:06
Welcome back, everybody to elevate 2024 day 2.

0:10
LeBron and I are happy to see all you guys returning.

0:13
Did everybody have a good time yesterday?

0:16
Yeah, we're good.

0:18
Anybody sore from yesterday?

0:21
Well, it's going to be worth it when we get to the very top, the top of this mountain that we're climbing.

0:26
The mountain being facility forces user knowledge.

0:31
I mean, just look at this gorgeous sunset over here.

0:35
You can hear the birds chirping in the background.

0:42
Yeah, those, those aren't birds.

0:44
But any who did everybody break down their tents and have all your equipment ready to go?

0:50
Because we're going to get a fast start with our first presentation today.

0:54
It's titled Unifying Business Processes across Multiple Systems with Automation.

1:00
And of course, that's going to be presented by none other than Mr.

1:04
Lee Harding.

1:04
Once again, Lee, good morning.

1:07
How'd you sleep?

1:08
You ready for another full day of Elevate?

1:10
Good morning.

1:10
Yes, I didn't sleep much.

1:12
I was very excited to for today and yesterday was so great and all the chat and feedback from everybody.

1:19
So yeah, we're going to have another good day today.

1:23
Fantastic.

1:25
Well, take it away.

1:27
OK, I'm going to remember to share this time all about the learning.

1:34
OK, Can you see my screen?

1:39
Yes.

1:40
OK, let me minimize something here so it doesn't block me.

1:45
OK, guys.

1:46
So this morning we're talking about unifying business processes across multiple systems with automation.

1:55
My name is Lee Harding, the climbing route.

1:58
Today we're going to talk about tools versus processes.

2:01
This is going to be kind of a high level thing, but we're going to sprinkle in some technical goodness too.

2:07
So I want to strike a balance, who's the leader when we talk about integration, striking a balance between our solutions and the idea of having a solution and a foundation for the future, which is really core to everything we do.

2:25
And automation is no exception to that.

2:29
So some heady stuff to start off with to get us thinking in the in a certain frame of mind.

2:34
Now I'll remind everybody that last year Elevate 2023, the talented Shane Weisinger, our solutions engineer presented on automation, on business automation and our solutions got into a lot of depth about the value of those solutions.

2:51
I'll be borrowing some of his great slides today, but trying to go come out things from a little different level from a product from a solution and problem level so that we can kind of show you guys how these things matter to your success.

3:10
OK, So a process can be made-up of individual jobs.

3:14
We all know that if a tool does a particularly job, a job in particular best might be good to use it, and overall simplification is a goal of ours.

3:26
Simplifying a process for those end users, for participants, should generate a more reliable and repeatable outcome for that particular process.

3:38
And what's not to like about that?

3:43
It always helps to have examples, right?

3:45
So I'm going to come back to this a couple times.

3:48
And this also kind of is a reminder of the long history of our company working with customers going back to, as I mentioned yesterday, 30 plus years.

3:58
I confirmed with Frank Simon, our CEO, that it went further back than I thought.

4:05
I said, how long have we been doing interfaces?

4:07
And he said, well, as long as we've been a company.

4:09
I was going to hedge my bets and say 10 to 15 years, but we're talking 3 decades of custom interfaces.

4:16
And so payroll is one of the types of interfaces we built as custom interfaces in the beginning before we had what I'll show you here in a little bit.

4:28
So let's take a look at payroll process.

4:30
Approved time cards in a system will have the employee work and leave hours usually with labor rates, who's paying for that work, the pay period information.

4:43
And the system tracking the time cards may not be the system that processes the payroll, you know, distributes the funds rights, you know, creates the checks, you know, that kind of stuff.

4:55
These can be different systems and and that's what we've seen and our customers have have shown us that and we've made this process a seamless process.

5:06
So who's the leader in the process?

5:09
Well, if we have many systems, sometimes we need one of those systems for its strengths and other times it's just required infrastructure.

5:20
Sometimes we have a system that's grandfathered in.

5:22
It's going to be there for a while.

5:24
We just need to work with it.

5:26
And you know, as a, as an integrator ourselves, you know, we have to embrace them all, all the systems that you need to use, we're going to find a way to integrate with them.

5:40
And systems integration isn't going to try and replace systems, but get them to work together as one.

5:47
So think of it as a person who's doing a job in a piece of software, doing a task.

5:54
The longer they can stay in that piece of software and not have to use another tool, bounce around, copy data, the better off we'll be, the easier it will be to train a person to do the process if we're training them on one tool, right?

6:08
So simple, simple, simple.

6:10
And and even though this integration, when we're going to show diagrams of systems connecting, the end result is that a user has a simpler life when that comes to doing a process with integrated systems.

6:25
They don't have to bounce around and different systems can be a leader in a particular area.

6:33
So operate slash aim would be a leader in the facilities management domain, asset life cycle management, facilities condition assessment, etcetera.

6:44
However, a tool like Work Day, PeopleSoft or Banner, etcetera would be as a leader in the HR space.

6:56
So, and we'll see and we have seen many, many interfaces built for different processes where different systems are leaned on heavily for a certain, you know, part of the process, they might be the interface the user uses.

7:13
So that's kind of where I'm coming at this from.

7:16
How does the user interact with the tool in order for the process to be controlled?

7:24
You should.

7:25
We want that to be 1 system, and you probably do too, whereas the process may use multiple tools behind the scenes.

7:34
And we basically want that hood to stay closed so that your end users don't have to know too much about what's going on in the background.

7:44
So striking a balance, don't worry, we'll get to some meat here.

7:47
I just want to set the stage for some things that I'll show you.

7:51
Make some context.

7:54
The Source of Truth tool would be identified for a domain area or job in the process.

7:59
We've already kind of talked a little bit about some examples of that.

8:04
Other systems may handle other jobs in that process.

8:10
And a great solution should make those handoffs, that data exchange in most cases a seamless thing, don't have to think about it, and better yet, automated on a schedule where no one has to even touch it.

8:26
And that's how most of our interfaces work is.

8:28
They are scheduled to happen in the background.

8:32
No one has to think about them once they're up and running.

8:36
So let's come back to that payroll interface.

8:39
This is an actual architectural diagram of an interface we built.

8:46
It's functioning.

8:47
It's out in the wild.

8:48
I can only assume it's working well because this customer has not had any issues I'm aware of.

8:56
It's been out there for several years.

8:58
This is how we would have done things prior to some new catalog items.

9:04
We have a new architecture that we built now remember we have the 30 plus years of interfaces.

9:11
We went and looked at examples like this to see what were the common threads to make a standardized product to make building interfaces simpler so that we could repeat this over and over and maintain a standard product for all customers as opposed to having to do a custom interface every single time.

9:35
We want 2 systems to work together.

9:38
This system just briefly, you've got data in the database, we filter or select the time cards we want to take out of that database.

9:48
We do.

9:48
This is actually should be have put as time card processing and the time card data exported, the payroll data exported or a notification to folks that the expert export has happened.

10:04
And then a file is output with the data that'll be consumed by the payroll system, which in this case was a banner system and there was a scheduled file transfer from the aim server to the other system.

10:17
That was a function that is a functioning interface.

10:22
So that sets the stage for the exciting stuff.

10:25
Now this is a great slide of Shane's that I like to use because it shows that Facility Force is working with so many tools.

10:34
And this is just the start.

10:36
You know, the app, the, the, the solutions are made to work with other tools operate in particular and the automations of Automate.

10:48
So, but in, but today we're talking about interfaces and you can see some household names down there.

10:59
The solution of Automate is our answer that came about first as a replacement for the custom solutions.

11:09
Can we get there faster, more, you know, can we get to the interfaces faster, make them a supportable product and it also makes them cheaper than it would have been to do custom, custom interfaces.

11:26
When you have a catalogue solution that's pre built that gets you 80 plus percent of the way to a full interface.

11:32
All that's left are some custom pieces and which are inevitable, unavoidable, but we've we'll show you the details of that in a bit.

11:42
Now people have seen this slide before.

11:44
The four pieces of the Automate catalogue integration components, integration solutions, business automation solutions or process automation solutions.

11:57
The ability to do custom automation yourself with the same code modules or common modules that we use that our architects have built through R&D, That is a huge thing.

12:09
And for the folks that go even further than that, actual open API support to the application, I wanted to put this in here for some context that you know, where should you start?

12:21
Well, off the shelf solutions are definitely the the place most customers will start because these are the needs that most everyone has.

12:32
Once those are exhausted, there may be some needs that not every customer have that you have and that's where custom automation comes in.

12:42
We have training to teach folks, customers who have some developer chops or or resources in house how to use the common modules and write the JavaScript for automation of our system.

13:03
And yes, you could do anything in those custom automations that we built in our integrations and our business processes.

13:10
This one will be a lot harder, but the business processes are well within reach for the for customers who take that advanced automation training.

13:20
And I'm sorry, I don't have it in the slide, but it's called advanced automation training.

13:26
And I put as a #3 the open API support because we do that at the highest level of our of our developers, but it's really the last stage if you need this level of support.

13:38
However, some of you watching the call right now may actually already be ready for this most advanced level.

13:44
And we can do training on that as well.

13:46
But I would generally suggest catalog items first, explore what the custom automation training is, the advanced automation training.

13:56
And if it's, and if you really do truly need an API training to go really deep, it's certainly there.

14:04
OK, I like to think of this as the Parthenon facility force.

14:10
It's got all of the data pillars, it's got our embedded analyze solution foundation and the Automate solution.

14:19
And of course, we're in, we're talking about Automate today, the catalog items, which I'll get into some detail on our data connectors, business processes and APIs.

14:35
Actually today we're just going to talk about data connectors because they are the basis of interfaces.

14:44
What to know about these that is special, especially if you're a customer who's been with us for a long time, is that unlike action codes, which you might have heard that phrase bounced around, those are scripts that just you hit run and they go and they do their thing.

15:00
But if you want to make any changes, you've got to get into the JavaScript and make changes to the code.

15:06
You have to be a programmer.

15:08
Our solutions are not that way.

15:09
They are configurable.

15:11
We have parameters that you change and those parameters were based on customer experience in the past, things they needed to change.

15:21
We brought those into the into the screen so a non programmer could make tweaks to how the scripts run.

15:31
So they're configurable and these top two things are catalogue products.

15:37
They're always configurable.

15:39
When we teach you to do custom automations, we also teach you how to make your automations configurable.

15:48
That's a very key point.

15:51
The business processes can also enforce business rules.

15:54
So if you want things to happen a certain way every time, you don't want folks to have to remember or you need things to happen immediately to be triggered so that a person doesn't have to roll in at 9:00 AM check and update.

16:10
You know, the system can be waiting for certain scenarios and be triggered to execute the automation you have installed, improving efficiency.

16:24
That's pretty much pretty straightforward there and then customizable.

16:30
Well, yeah, that's, that's the parameters.

16:33
All right, so this is the slide I've been trying to get to all this time.

16:38
Inbound data connectors, we call them DCS.

16:41
You might have also heard SDCS, standard data connectors, same thing.

16:46
We're importing data from another system in to operate and aim.

16:50
This is an architecture.

16:52
This simplifies what happens behind the scenes, but it's essentially the basics.

16:57
You have our operate system in blue.

16:59
We have another system of some kind.

17:03
It's going to provide information that is transformed into a file that we can import.

17:10
It's that simple.

17:11
We know what that file should look like.

17:13
Sometimes there's a couple of file types we support.

17:16
Can be CSV, can be Jason.

17:18
And because it's our database and we know what that database hierarchy looks like, we know those tables, we know the requirements of the columns and fields and data types.

17:31
Then we can set some rules as to what this file needs to look like.

17:35
And then basically as long as we have the data we want coming from the other system, we can massage it into the format that our system recognizes.

17:46
And then you have a functioning interface and this everything you see in blue is off the shelf and the red is the missing piece that needs to be coded up.

17:58
But this is such a smaller piece than the blue.

18:03
And also the file transfer is something handled separate.

18:08
It's usually a scheduled file transfer and technical services helps with that.

18:12
SFTP typically and we won't get into the weeds on that, but that's that's what's happening with this little bridge.

18:19
OK, that's an inbound data connector.

18:23
Let's revisit our old payroll interface here, the custom solution.

18:29
We already know what it looks like.

18:31
What could it be?

18:33
Well, it could become an outbound data connector.

18:40
I just like to look at that it you can already tell it's simpler, right?

18:43
Even though it's a high level diagram, this is an architecture as well.

18:48
This is generally generally applicable to any table or set of tables related tables in our system.

18:58
So what this is all about is exporting data from operate or aim to another system.

19:04
So we're going the other direction now going from left to right instead of right to left.

19:08
And I'm sorry if that wasn't clear before notice we have custom business rules called out in the middle there of the automated export.

19:17
So this is a different situation and almost I don't want to say entirely the concept is the same.

19:22
We provide a file that file is sent to the other system.

19:25
The difference is that we can be told through your requirements when we talk to customers, Hey, what kind of file do you need to get?

19:34
And we can make that happen.

19:36
So we can generate a standard file, which sometimes off the shelf, it'll just work.

19:45
That was that's, that's the ideal situation.

19:47
It sometimes that standard CSV file is exactly, we can do whatever you need.

19:54
It has custom column names, it has custom date field formats, it has custom column ordering.

20:02
You can even do aggregation in it in that file, in the standard file.

20:06
So it can actually be the solution right out-of-the-box.

20:12
This is going to do a selection of the data from the tables you want from related fields.

20:18
Let's say you're exporting a work order.

20:22
There's going to be fields related to the work order that you're going to want in your file.

20:26
If you should want to have extra columns from other tables that are not generally thought of with work order, that's OK.

20:35
We have hooks in this Gray box, which I didn't have space to put really, but we have hooks for custom selection statements, hooks for custom processing such as aggregation and calculations.

20:51
And we have a hook for custom file generation, which can mean more than one file.

20:59
You're not limited to one.

21:00
If once you once you turn off the standard file generation, you can do whatever you want.

21:05
You could generate a standard file and a custom file.

21:09
It's, it's pretty exciting stuff.

21:11
And that payroll interface is transformed into the one we saw before that diagram into something that is just like the other outbound data connectors we've built for any other screen in the system essentially, and that's something I should have said right off the bat, you can usually think of our data connectors as a way to import or export the information behind screens in the operate or AIM system.

21:45
Probably should have led with that, but if you want to know how the data connectors are named, just know it's a screen.

21:54
98% of the time it's a screen.

21:57
Sometimes we export stuff there is no screen for such as financial transactions.

22:03
There's no screen for transactions, but we do have an export for that.

22:09
It's called the financial transaction outbound, I believe.

22:15
OK, so you can start to see a common thread there.

22:20
So diving a little deeper into data connectors, you can see here it's a file exchange.

22:27
The inbound is bringing in a hierarchical set of data or transactional data.

22:33
So hierarchical just means this information is going to be disseminated or distributed across multiple tables in the database that have a parent child relationship.

22:46
That's hierarchical.

22:48
That could be a list of assets which are in properties, which are in a facility, which those facilities are in a region, or you might call that county and state.

22:59
But the point is that you identify those location of that asset as part of a hierarchy or transactional data.

23:07
Transactional are things like invoices, purchase orders, time cards.

23:16
Yeah, those are some good examples.

23:19
So those are imported.

23:21
We consume a standard file.

23:23
Outbound, we generate a flat output file.

23:26
It's an Excel file, but once again, we can make custom files.

23:32
It doesn't have to be.

23:32
That's just the standard output.

23:36
And we export to another system.

23:38
Notifications, well, that's just baked into our automation solutions.

23:42
There's literally common modules that that we call that you can send an e-mail at different points in the, in the in the execution.

23:51
But generally speaking, we have, we have rolled into these things a way to notify an administrator or the recipient of your choice.

24:01
I think you can include multiple, yes, you can include multiple recipients to let them know the automation has run.

24:08
Most of the time these things, if it's a business automation, you're typically not going to notify folks every time the records are in or created.

24:17
But this connectors, it is more common that you want to be notified of a successful run.

24:25
You can actually tell it not to notify you unless there's a problem.

24:30
That's also handy because who needs more e-mail, right?

24:34
That's unnecessary.

24:35
That is, we got scheduling.

24:38
We totally overhauled the scheduler for automation a couple releases ago.

24:43
It might have even been a year and a half ago, but it's a big improvement.

24:48
You've got total flexibility on when you send things the first day of the month, the 12th day of the month, the 3rd Thursday of the month, the last day of the month, no matter what month.

24:59
It is these kind of options that you know, there is no option you could choose that isn't possible with the new scheduler.

25:06
That's really a good thing.

25:07
People had found the gaps and we we fixed that.

25:11
And then logging, of course, this is a big deal If you're an administrator of automations, you need to know what's happening.

25:18
If there are errors, you need to know where to find them.

25:20
And we have something called the batch event log, which tracks these batch runs and tells us how they went.

25:29
It's also a handy record to look back and see the last time you ran things.

25:35
And yes, we can make reporting off of the batch event log.

25:38
I did a demo on that.

25:41
Gosh, it was one of the CSS webinars just to show you the power of of the analyzed product.

25:46
We can actually give you some nice visuals on your automation runs.

25:54
This is the power of an integrated solution.

25:56
Things support each other.

25:59
Automate supports the efficient processes within operate, but also the efficient processes that span multiple systems.

26:07
Analyse supports the automated administrator by letting you look into how your processes are running.

26:14
It's really, really neat.

26:17
OK, so a solution and the foundation.

26:20
This is where I try to put a put a finger on the perspective we have as a company for automation and integration.

26:31
In particular, we want to embrace other systems as partners in the process.

26:36
We even take that so far as to integrate some key solutions into our system.

26:42
If you saw anything on Locate so far, you know that we've integrated Arc GIS, the Esri product into our software and that's a product that has a road map.

26:52
It's going to, it's very exciting where that's going.

26:55
So we integrate other solutions into our products, but we are also integrating with external systems that will be staying as external systems and we're treating them as partners.

27:08
We will exchange data as necessary to support each of those systems users.

27:12
We realize some folks will stay in Operator AIM, some folks will be living in PeopleSoft or Jaeger or CGI or Work Day.

27:28
You know, pick your tool that you're using and logging into every day.

27:33
If you need something from the operate or the facility force world, we can make an interface that connects to that system.

27:43
And I can confidently say that we've solved some very complex issues with customers with their help.

27:49
And that's where partnership comes in with you guys.

27:52
We work through requirements, we nail it down.

27:56
It's a collaborative effort.

27:58
We know a lot of you folks watching today are very technical folks.

28:01
And somebody mentioned thinking of our professional services person, Gil as part of their team.

28:08
We think the same way about you guys, especially when it comes to building an interface where we need to share information and we want to remain open to any future systems that may be integrated.

28:21
We're not going to wall off parts of a of the of our processes or our or our data.

28:29
We are open to expanding our solution to support more systems.

28:36
OK, so, and this is proof of that.

28:39
They say practice makes perfect, right?

28:41
Well, this list is just data connectors.

28:43
This doesn't even include the business processes that we have, but these are data connectors that we have.

28:48
It might actually not have every single one yet.

28:52
Why am I showing this?

28:53
Well, just to give you a sense of what's out there for one.

28:58
But also most of this list came from the 30 plus years of interfaces we've built.

29:04
And we turned them into a modernized, configurable version and put them in the catalog.

29:10
And there's been several customers that said, hey, you know, I'd kind of like to replace that custom interface that you guys built in 20/20/10 with the new thing.

29:21
And I know sales does a great job of finding competitive or a reasonable way to transition folks because it's better for everybody.

29:29
It's easier, easier for us to support you if you do that.

29:33
And then other things have been added to the catalogue because folks said, hey, we, we need this thing.

29:37
You guys don't have it yet.

29:39
Can you add it to the catalog?

29:41
And that's not hard for us because they're standard solutions and we can crank them out.

29:48
I hope there's no developers on this call because I don't want to trivialize the difficulty here, but it's certainly not a scratch from scratch proposition.

29:57
We have a, we know how to do these and we, we add them.

30:01
So if you don't see something on the list that you need, don't hesitate to still reach out to us.

30:06
We can add it to the list.

30:08
Be sure that now I have to add a little more to the slide that Shane provided me.

30:15
So you know, add some value, right?

30:18
This is just for perspective.

30:20
It's literally about 8020.

30:22
About 80% of the data connectors in our catalogue bring data in to operate.

30:30
I know it because I did the math about 30 minutes ago and outbound is about 20%.

30:37
What's that tell us?

30:38
Well, it tells us I think safely that our customers who use automation are trusting operate with data from other systems to run processes in the operate system.

30:52
There's, I can't take anything else away from this for sure, except that they've recognized the need to get data from somewhere else in to operate so that they can use more of operate.

31:05
And and then the outbound is basically saying that the converse may be true, that they see value of the data and operate that they need to have in another system on a regular schedule.

31:21
And and so they've they've built interfaces to go the other direction.

31:26
The other way to interpret this is that you may have an inbound and an outbound.

31:31
Some folks will call that bi directional for a particular kind of data because they're both just doing an exchange.

31:38
They're both staying In Sync for a certain thing.

31:43
And then that's, you know, there's a process being done and it's being being done in both systems and you want them both to be In Sync with each other.

31:51
Work orders might be generated in our POS, purchase requests might be generated in operate, and they might also be being generated in another tool.

32:02
We want these all to have the same list that happens too.

32:07
So I just wanted to show this for some some perspective and we're nearing the end.

32:15
Do I, am I out of time?

32:16
Brandon, did I go over already?

32:19
Yeah, you're a little over, but we can keep going.

32:23
We'll wrap it up.

32:25
So this is the data connectors, a common sync, a financial, a procurement, these are, these are just examples of data of interfaces and sales will bundle these for you if you're interested.

32:38
Related ones get bundled together to be more attractively priced.

32:42
So we've covered tools versus processes, who's the leader, striking a balance between the different systems that are integrated and and how do we have a foundational solution?

32:53
I guess we've got your poll now.

32:55
Brandon.

33:01
There you go.

33:01
Should be in chat now.

33:03
We apologize for going long.

33:04
No big deal.

33:08
We're good.

33:09
Yeah.

33:09
Everybody, if you wouldn't mind checking out that poll that's in chat, but we'll go ahead and move on.

33:15
Thank you, Lee for putting together another great, fantastic presentation.

33:21
All right, my pleasure, everybody.

33:22
And once again, thanks for for coming here for for Day 2 and I'll hand it off All right.