Jonathan Marsh: 00:09   Hello. I'm Jonathan Marsh with Caisson and today I'm here at William T Spaeder Company, my former company where I was a CTO for 12 years. I'm here with Kevin Soohoo of LINQ and we've decided to make this one of the flagships for launching the LINQ Project. Can you explain to us a little bit, Kevin, about what LINQ is and about what this project is going to be with Spaeder?

Kevin Soohoo: 00:33   Yeah, we're excited to be here at Spaeder as one of our first kickoff and our first Beta customers. What LINQ is in a nutshell is sometimes called a Google for your projects, so think about your project and all the information that you have and being able to easily find it through a voice query or typing it out, to make information accessible for people in the field.

Jonathan Marsh: 00:52   From my standpoint as we were looking at all the technologies, you had this huge volume of information being made up, and it was constantly changing. When you guys decided to look at doing something to sort of bring that together and bring it to the field, what were some of the first steps you took?

Kevin Soohoo: 01:09   You know, we wanted to be really focused on a specific niche. And so as we looked at the industry and the different solutions that existed today, they seemed to be a really under-served in terms of addressing the subcontractors and specifically trade workers. And so as LINQ started to go through its initial stages and really look at where to focus our efforts, and we had 300 plus interviews -- owners, architects, subs, trade workers... And really through those discussions said, look, the information that does exist today in many cases is not making it all the way down to that lowest level -- we would call where the business of building is happening. What you're finding is still paper in many, many cases. So we really wanted to set out and find a way to address that.

Jonathan Marsh: 01:53   When you started talking to all these guys in the field, you said you talked to 300 plus contractors out there. What were the real commonalities? What were the things that seem like they were simple but people just weren't getting ahold of?

Kevin Soohoo: 02:05   Yeah, it really came down to two, which was the speed of which to access the information. And you know, we got a lot of great tools today and access to them in the cloud is a pretty common thing to say. But if you're in the field, you're on a mobile device, you're running around on the job site, not always true. And the second one, the confidence that the information that you've been given or that you're reading is what is the latest.

Jonathan Marsh:	02:32	Yeah, and that's a huge question when you're finding the information, and one of the things I really liked about LINQ wasn't actually that it said this is definitely the right information. I liked the fact that when you talk to, when you ask it a question, it doesn't bring you up one piece of information. It brings you up everything that relates to the question you ask. So if I started asking about a pump, it starts pulling up the pump's cut, the pump submittal, the pump drawings that were there. And I liked that because when I was coordinating jobs or when I was checking coordination, I needed to see all of that at once. And when I realized that these guys in the field, all of the foremen weren't seeing that, it set off a light bulb for me saying a big part of the reason that we're having problems in the field isn't that they're not getting the right information, it's that at times they're even just getting a part of what's actually there.
Kevin Soohoo:	03:20	Right.
Jonathan Marsh:	03:20	You know, you can say we want to have these pumps here and we can give them a pump cut. But if they don't see that there are inertia basins, if they don't see that there are additional valve sets that go with them, they can't do that. And I noticed from asking LINQ questions, what I noticed nine times out of 10 is it's going to bring me up the pump. And then there's like three other things it brings up that I didn't think about but that are related to that pump and I really liked that. I was surprised.
Kevin Soohoo:	03:46	Yeah. One of the really big, powerful things is not only serving information up very, very quickly, but as you just described this sort of holistic or even context that we can bring in because also through the research is human psychology of when you find an answer. We're all very busy and you find an answer and you go and you run with it. And in many, many cases, especially in a project, that may not be the correct answer, but just because of the nature of we're so busy, you just take it and you go. But if we can tell you, hey, here's an answer or here's our version of the truth, but the truth may be slightly different by looking at these other related documents, then I think we're helping a lot with that confidence.
Jonathan Marsh:	04:25	The other thing I would say we found out here at Spaeder when we first tested it is -- we gave it some people in the VDC. I gave it to myself as a manager, and we talked to some other people in service. We were surprised how different the analysis was of the documents. Like the guy in the field when he's looking at a submittal, he was looking for something completely different than me as head of a department or the guy that I was using in VDC, Travis, he was looking for dimensional data. The guy in the

field was looking for installation information and I thought it was really neat that I was getting to see the information that they were looking for too and found that I had a better context to see what was going wrong. We had at least two situations in which we had doubling up of information. We had the same piece going to one of these pumps and when you called it up in LINQ you saw both pieces and it didn't immediately come to me that there's obviously a problem here, but when the foreman saw that there were two pieces, he immediately got on the phone and said, "Which one's right?" He said, "Which one's right? I'm planning to do this. I have this stuff going into place. Which one's right?" And I think that's another thing where we're trying to get this information there really helps us move forward.

| Kevin Soohoo: | 05:36 | I think a derivative of that also is helping form more effective questions. So we've had a couple of use cases or customer requests saying, you know, can this be potentially a training tool for either journeymen coming up or our newly minted foremen that haven't been around enough, but through the nature of how our solution works have better, more effective questions. And that could be really important. I think we can tap into that down the road. |

| Jonathan Marsh: | 06:02 | Yeah. I thought, you know, when you're talking about questions, I thought it was interesting talking to some of the people here, especially some of the supervisors. I talked to Tim Devine here and he said he expects that even the apprentices have a certain level of knowledge before they come and ask him a question because he's gets questions from tons and tons of people each day. He wants them to be above the questions that are simply something you're not looking for in the drawings. And I thought that was kind of cool cause I do think that especially the apprentices, the younger guys coming up, if they lean on this tool, they're going to be asking the foremen less questions -- they're going to be more informed and honestly they're going to seem more informed to the people that need to trust them. You know? And I thought that was pretty big with it. I would also say that bringing it to phone has been something that when I first saw it, I didn't think about it as much -- so I'm pretty well wired. I have like two iPads and I have two phones and I have my laptop and I actually have a backup laptop. But most of the guys in the field don't have any of that, but they do have a phone and I think it's really cool that a lot of construction technology that's sort of peaking in right now, the phone is always on their mind. We have a service guy here, Chris Fenno. He got involved with just some basics of LINQ. We basically took some manuals. I know you were involved with it. We uploaded those manuals, |

and he was able to search those quickly and I thought it was really interesting. He came back to me after doing that and we were looking at so what's the difference between this and what you were doing? And what he was doing was he was getting his computer, bringing his computer down to where he was doing the maintenance. He was setting up his computer and turning his computer on. He was going through all this stuff to get there and now he could basically have his phone there and call it up. And I thought to myself, even if it's not terribly robust in what it's doing, this is so much faster, so much faster than doing all of that stuff and worrying honestly about whether my computer is right, whether I have connectivity. I mean the idea of using a phone, I thought it was pretty big in what LINQ does in that the connectivity's really dealt with because the connectivity's onboard with the phone. With all of these other construction technologies, you find out really quick, they're like, we need you to have connectivity set up, but when you target the phone like you guys did, I think there's a huge advantage in having that sort of all set up before you even get to the job site.

| Kevin Soohoo: | 08:19 | Yeah, there is a convenience factor in any of that. I talked about this in past articles, this perfect storm of sorts. It's a perfect storm of three conditions. One of those conditions is just pervasive mobility, right? And that's having pretty good connectivity in most most areas. And when you look at the service aspect of how it could be helpful and make them more efficient. I was at a MEP contractor for 11 years and we had a service group too and those service guys are drilled down to the minute. I mean they only have x number of minutes in and out of a job of a service site. And so the more time they were waiting for the computer to boot up and look up stuff versus just getting the phone out, that's a huge saver right there. Just to just give them that ability. |

| Jonathan Marsh: | 08:58 | Yeah. And I've seen that too. I mean when I talked to them, they talk in minutes as money. |

| Kevin Soohoo: | 09:02 | Yup. |

| Jonathan Marsh: | 09:02 | I've heard so many people talk in minutes as money. And I think that that's one of the huge things. It's one of the easy ways to decide whether something's good for your company. |

| Kevin Soohoo: | 09:12 | Right. |

Jonathan Marsh:	09:12	Cause if you look at... Am I saving minutes by using this or am I losing minutes? And it's real clear. There's not a lot of gray area. If you're saving minutes, you're saving money.
Kevin Soohoo:	09:22	Yeah.
Jonathan Marsh:	09:22	I think that it's also somewhat where LINQ shines. At least when we tried it out initially, not only were we saving some time, but the quality of the information we were getting... We were doing one search and getting three or four search results for it as if we had gone into our documents and looked for things in three or four different places. And I thought that again, I'd rather search here one place for everything than search through all of that folder structure and all of that mess to try to figure out what's going on.
Kevin Soohoo:	09:51	Yeah. Going back to the interviews that we've done, it seems like the running line or the running average of a trade worker spending time on in a given week to look information up, it came in anywhere from like six to 10 hours per week. So you figure that's just labor. That's just dollars. That's just being unaccounted for that evil word, nonproductive time. But in just the simple fact of looking information up and having access to it, you know, we're, we're seeing anywhere from six to 10 hours a week just being burned on that. And if they're union labor, that's really expensive. But any labor wasting like that, it's just not really good.
Jonathan Marsh:	10:27	Yeah. And I know also that when you're trying to look something up and you're in the field, you're not looking it up in some book, you're usually on the phone. So it's usually actually two people's time. There was one thing that I thought was really interesting about LINQ that we haven't talked about at all and that's during the birth of LINQ, you guys engaged in a lot of design thinking exercises with people. Describe for everybody what is design thinking as it applies to construction technology.
Kevin Soohoo:	10:53	Yeah, sort of the early beginnings with LINQ, we engaged with a good group called Mock 49 in California in Menlo Park. And they have this whole incubation program. And in that program they really teach you this design thinking methodology. In a nutshell you, if you've seen maybe Silicon Valley as a TV show or are just looking at those walls with colored sticky notes everywhere, that's really an output of design thinking. But what it ultimately does is it creates this opportunity where you go into a session, drop all your preconceived notions, and anything goes no matter how wacky it is as an idea. So it's a brainstorming session

of sorts. Forget the technology, just forget everything and solve the problem. Through a couple of iterations and some voting... through all that, all those chaotic piles of sticky notes, ends up becoming very organized ideas that you can quickly prioritize. And with our customer design thinking sessions every quarter, we do run that design thinking format for each one. And the nice thing too is those contractors to four or five that participate with us every quarter, they take that format back to their company as a more quote unquote effective means of brainstorming. So I think we're giving back as much as we're getting from these kinds of sessions.

Jonathan Marsh:	12:21	Yeah, I know when I went to the session, I was blown away by it. I did come back and I found myself coming back to ask more questions and to ask for more stories. I really found myself often instead of telling people what I thought they needed, saying, "So explain to me exactly what the problem is. Explain to me your story around this problem." I think that came out of a lot of what you guys were doing down there. And I can tell you from my standpoint in rolling out technology often what we're doing when we roll it out is a push, and I felt like design thinking took a lot of this push that we're doing for tech and it made it into a pull system. It's like what is your problem? What can we address for you? And it made it a lot easier for me to take the solutions that came out of someone's pain and someone's problems and make those come to life than to do some of these things that I wanted to do that I thought were cool and I think would address some problems but really weren't what was being asked for.
Kevin Soohoo:	13:17	Yeah. I mean and two things come out. You know, you keep asking why, why do you want this? Why does this happen? And if you can get to a point where you can't get past any more "whys," then you've gotten to the root of it.
Jonathan Marsh:	13:26	So Spaeder is one of the early, early adopters. I mean really one of the first started, and this is one of the first Beta groups actually that we're going to do. If you could get the best possible outcome from the Beta group, what do you think that looks like for LINQ?
Kevin Soohoo:	13:41	Well, we're very honored. I think privileged to be able to have Spaeder, a forward thinking contractor, believe in the vision and be with us at such an early stage -- to have a customer that's agile and that really appreciates the innovation. The opportunity to be innovative is really a beautiful thing for everyone involved and the hope from these, let's say next two to four weeks, is really just people in the VDC teams and the

field teams, the project teams, operations, but start to just say "search is better" -- and that will be a relative term -- "than how I do it today," which is hunting and pecking through folders, calling, emailing and texting for an answer, looking up a binder full of paper in the job site trailers. So just some sense of like, hey, search is actually a more time-saver and more effective way for me to seek an answer. That would be really the first milestone... Saying searching is really the way to go.