1

00:00:00,000 --> 00:00:02,660

[Music]

2

00:00:06,190 --> 00:00:09,379

[Applause]

3

00:00:10,160 --> 00:00:13,040

welcome to another episode of qb64

4

00:00:12,400 --> 00:00:16,080

report

5

00:00:13,040 --> 00:00:18,000

season two in today's episode

6

00:00:16,080 --> 00:00:19,439

i'll talk to mark hoffman chief

7

00:00:18,000 --> 00:00:22,320

architect and ceo

8

00:00:19,439 --> 00:00:23,039

of ram object software come with me as

9

00:00:22,320 --> 00:00:26,560

we find

10

00:00:23,039 --> 00:00:30,640

what that has to do with us here at qb64

11

00:00:26,560 --> 00:00:32,559

here's mark so here with me today i have

12

00:00:30,640 --> 00:00:35,040

mark hoffman from remo objects

13

00:00:32,559 --> 00:00:36,480

hi mark hi how are you doing oh good i'd

14

00:00:35,040 --> 00:00:38,239

like you to introduce yourself

15

00:00:36,480 --> 00:00:40,079

so our listeners can know who is the

16

00:00:38,239 --> 00:00:43,040

good guy we have here with us today

17

00:00:40,079 --> 00:00:44,000

sure yeah so i'm mark uh i'm co-founder

18

00:00:43,040 --> 00:00:45,840

and chief architect

19

00:00:44,000 --> 00:00:47,120

at ram object software we create tools

20

00:00:45,840 --> 00:00:48,879

for software developers

21

00:00:47,120 --> 00:00:50,399

and how long have you been doing this

22

00:00:48,879 --> 00:00:52,800

quite a while since 2002

23

00:00:50,399 --> 00:00:53,760

that's a long time yeah and what was the

24

00:00:52,800 --> 00:00:56,800

pushing for us

25

00:00:53,760 --> 00:00:58,399

behind coming up with ram objects well

26

00:00:56,800 --> 00:00:59,359

basically we started back in the delphi

27

00:00:58,399 --> 00:01:01,039

days so

28

00:00:59,359 --> 00:01:03,359

our first product which we also still

29

00:01:01,039 --> 00:01:05,840

sell is called remoting sdk so we

30

00:01:03,359 --> 00:01:07,439

started basically by creating a

31

00:01:05,840 --> 00:01:09,360

library that would allow people to

32

00:01:07,439 --> 00:01:12,000

create client server

33

00:01:09,360 --> 00:01:13,280

infrastructure in in delphi applications

34

00:01:12,000 --> 00:01:15,680

remember this was back in

35

00:01:13,280 --> 00:01:16,400

2002 when there was sort of a new thing

36

00:01:15,680 --> 00:01:17,840

to do so

37

00:01:16,400 --> 00:01:19,759

we came up with some technologies to

38

00:01:17,840 --> 00:01:20,720

make it really easy to put server

39

00:01:19,759 --> 00:01:22,960

technology

40

00:01:20,720 --> 00:01:24,240

into your application and then put the

41

00:01:22,960 --> 00:01:24,560

corresponding code in your client that

42

00:01:24,240 --> 00:01:26,560

the

43

00:01:24,560 --> 00:01:28,479

server could talk to the client with

44

00:01:26,560 --> 00:01:30,079

without having to very much worry about

45

00:01:28,479 --> 00:01:32,640

all the networking and all the

46

00:01:30,079 --> 00:01:34,400

nitty-gritty details which hasn't gotten

47

00:01:32,640 --> 00:01:35,680

easier but it was very complicated at

48

00:01:34,400 --> 00:01:38,240

the time so

49

00:01:35,680 --> 00:01:39,840

yeah bro i can imagine that uh these

50

00:01:38,240 --> 00:01:41,680

things were beginning to become popular

51

00:01:39,840 --> 00:01:42,880

and you guys jumped right in yeah yeah

52

00:01:41,680 --> 00:01:44,640

pretty much yeah that was about the time

53

00:01:42,880 --> 00:01:45,920

when like like soap was coming out and

54

00:01:44,640 --> 00:01:48,880

all that stuff and of course

55

00:01:45,920 --> 00:01:49,840

soap was very convoluted and we thought

56

00:01:48,880 --> 00:01:51,680

of

57

00:01:49,840 --> 00:01:53,040

we figured there's a better way to do

58

00:01:51,680 --> 00:01:54,320

this or a simpler way to do this more

59

00:01:53,040 --> 00:01:56,640

streamlined so

60

00:01:54,320 --> 00:01:58,560

that's what we did and then we basically

61

00:01:56,640 --> 00:02:00,079

built from there so after that

62

00:01:58,560 --> 00:02:02,399

we create data abstract which sort of

63

00:02:00,079 --> 00:02:05,200

build on top of the remoting sdk

64

00:02:02,399 --> 00:02:07,600

to put a database layer on top to build

65

00:02:05,200 --> 00:02:09,440

distributed database applications

66

00:02:07,600 --> 00:02:10,800

again that was also on the delphi side

67

00:02:09,440 --> 00:02:12,480

and then basically from there we started

68

00:02:10,800 --> 00:02:14,000

exploring other platforms to

69

00:02:12,480 --> 00:02:16,319

wenttou.net and eventually other

70

00:02:14,000 --> 00:02:18,480

platforms and how long had you been a

71

00:02:16,319 --> 00:02:21,840

programmer when that started

72

00:02:18,480 --> 00:02:23,200

i've been programming i mean for various

73

00:02:21,840 --> 00:02:26,319

meanings of the term

74

00:02:23,200 --> 00:02:28,000

i want to say since i'm like 10 or 12

75

00:02:26,319 --> 00:02:30,319

back with basic all the way back then

76

00:02:28,000 --> 00:02:32,160

actually but yeah i mean like seriously

77

00:02:30,319 --> 00:02:35,200

programming i want to say

78

00:02:32,160 --> 00:02:36,080

i've been since like the mid 90s basic

79

00:02:35,200 --> 00:02:39,120

has this

80

00:02:36,080 --> 00:02:40,560

entry-level drug status right yeah

81

00:02:39,120 --> 00:02:43,680

yeah i mean i basically started on a

82

00:02:40,560 --> 00:02:45,360

commodore 64 back in the day

83

00:02:43,680 --> 00:02:47,040

got my feet wet with basic then switched

84

00:02:45,360 --> 00:02:50,000

to assembler oh

85

00:02:47,040 --> 00:02:51,280

that's that was a jump yeah i mean you

86

00:02:50,000 --> 00:02:53,840

you kind of had to if you wanted to

87

00:02:51,280 --> 00:02:55,200

to get serious exactly yeah i never went

88

00:02:53,840 --> 00:02:58,720

past the basic stuff

89

00:02:55,200 --> 00:03:00,720

so i'm still crawling and uh

90

00:02:58,720 --> 00:03:01,840

just having fun really but it's it's so

91

00:03:00,720 --> 00:03:04,959

cool to talk to you

92

00:03:01,840 --> 00:03:06,959

uh about this story you have with it so

93

00:03:04,959 --> 00:03:09,280

uh the product you start the ram objects

94

00:03:06,959 --> 00:03:09,840

with still exists as you said but do you

95

00:03:09,280 --> 00:03:12,080

still

96

00:03:09,840 --> 00:03:13,840

uh is it still your main product no i

97

00:03:12,080 --> 00:03:14,800

mean i mean i don't say maine or not man

98

00:03:13,840 --> 00:03:15,920

because i mean

99

00:03:14,800 --> 00:03:17,200

you gotta love all your children right

100

00:03:15,920 --> 00:03:18,560

so we like all our products and they're

101

00:03:17,200 --> 00:03:19,680

all important to us but i think the

102

00:03:18,560 --> 00:03:21,920

product we're going to talk about today

103

00:03:19,680 --> 00:03:23,280

is elements which is our our compiler

104

00:03:21,920 --> 00:03:25,599

product and i think that's sort of

105

00:03:23,280 --> 00:03:26,959

the biggest thing we do right now and we

106

00:03:25,599 --> 00:03:29,760

started that back in

107

00:03:26,959 --> 00:03:30,720

i want to say 2004 and basically

108

00:03:29,760 --> 00:03:32,480

elements as a

109

00:03:30,720 --> 00:03:34,480

compiler for multiple languages and

110

00:03:32,480 --> 00:03:36,319

multiple platforms

111

00:03:34,480 --> 00:03:37,760

that lets you pretty much create any

112

00:03:36,319 --> 00:03:39,519

kind of applications you want to

113

00:03:37,760 --> 00:03:41,040

and that's awesome i mean if you can't

114

00:03:39,519 --> 00:03:43,200

program in any language

115

00:03:41,040 --> 00:03:44,400

and you want to program to any platform

116

00:03:43,200 --> 00:03:47,040

you can use elements

117

00:03:44,400 --> 00:03:49,040

that's it yeah yeah and uh what's even

118

00:03:47,040 --> 00:03:51,840

crazier is that you guys have this

119

00:03:49,040 --> 00:03:53,840

product which is a compiler and uh

120

00:03:51,840 --> 00:03:55,040

supporting all of this how big a team do

121

00:03:53,840 --> 00:03:56,720

you guys have

122

00:03:55,040 --> 00:03:59,280

it's actually a fairly small team we're

123

00:03:56,720 --> 00:04:01,280

like 10 people all in all

124

00:03:59,280 --> 00:04:02,879

and uh how is the workload divided

125

00:04:01,280 --> 00:04:04,959

between all of you guys

126

00:04:02,879 --> 00:04:06,640

i mean it's it's pretty pretty spreads

127

00:04:04,959 --> 00:04:07,840

pretty evenly i mean about a like on the

128

00:04:06,640 --> 00:04:09,280

other products we have like two or three

129

00:04:07,840 --> 00:04:12,080

people that are focused on the

130

00:04:09,280 --> 00:04:12,400

data abstract and remoting sdk and and

131

00:04:12,080 --> 00:04:13,680

like

132

00:04:12,400 --> 00:04:16,239

the bulk of the team is definitely on

133

00:04:13,680 --> 00:04:18,079

elements because i mean that certainly

134

00:04:16,239 --> 00:04:20,479

takes the most time ongoing i mean

135

00:04:18,079 --> 00:04:22,160

keeping up with languages and platforms

136

00:04:20,479 --> 00:04:23,600

and all that

137

00:04:22,160 --> 00:04:25,199

but but pretty much everybody's involved

138

00:04:23,600 --> 00:04:27,520

with everything a little bit

139

00:04:25,199 --> 00:04:28,960

and uh assembling that thing must have

140

00:04:27,520 --> 00:04:30,720

been a challenge because

141

00:04:28,960 --> 00:04:32,639

everybody needs to know everything too

142

00:04:30,720 --> 00:04:33,840

right yeah i mean we're kind of a grown

143

00:04:32,639 --> 00:04:35,919

team so people come in

144

00:04:33,840 --> 00:04:38,080

to do one thing and then over time they

145

00:04:35,919 --> 00:04:39,840

sort of they find the stuff they like or

146

00:04:38,080 --> 00:04:41,040

don't like and but but yeah more or less

147

00:04:39,840 --> 00:04:42,560

everybody knows a little bit of

148

00:04:41,040 --> 00:04:43,680

everything i mean

149

00:04:42,560 --> 00:04:46,240

not to the same degree i mean there's

150

00:04:43,680 --> 00:04:48,080

certain things like only certain people

151

00:04:46,240 --> 00:04:48,800

can do right or should do or prefer to

152

00:04:48,080 --> 00:04:50,160

do but but

153

00:04:48,800 --> 00:04:51,520

everybody's in touch a little bit with

154

00:04:50,160 --> 00:04:53,280

everything yeah i mean you got to do

155

00:04:51,520 --> 00:04:55,919

with a small team like that

156

00:04:53,280 --> 00:04:57,840

and how much into the programming side

157

00:04:55,919 --> 00:04:59,360

of it are you still involved

158

00:04:57,840 --> 00:05:01,039

oh i'm still pretty involved with the

159

00:04:59,360 --> 00:05:01,680

programming side yeah i mean i try to i

160

00:05:01,039 --> 00:05:03,360

mean

161

00:05:01,680 --> 00:05:04,479

i'm also doing like most of the sort of

162

00:05:03,360 --> 00:05:05,759

business side of things because

163

00:05:04,479 --> 00:05:07,840

someone's got to do it but

164

00:05:05,759 --> 00:05:09,440

i try to be be very involved with

165

00:05:07,840 --> 00:05:12,560

programming as well so i'm actually like

166

00:05:09,440 --> 00:05:14,400

i i'm in charge of our our own ide we've

167

00:05:12,560 --> 00:05:16,960

gone over on ide for windows and mac so

168

00:05:14,400 --> 00:05:20,320

i'm the lead developer on that

169

00:05:16,960 --> 00:05:24,000

so that helps me keep my coding feed wet

170

00:05:20,320 --> 00:05:25,919

that's cool uh what about

171

00:05:24,000 --> 00:05:27,199

the the the beginning of elements when

172

00:05:25,919 --> 00:05:30,400

was that

173

00:05:27,199 --> 00:05:31,360

yeah so that was in 2004 so so basically

174

00:05:30,400 --> 00:05:32,880

we started again like

175

00:05:31,360 --> 00:05:34,160

yeah we were coming from a dolphin

176

00:05:32,880 --> 00:05:36,000

background i was saying before right so

177

00:05:34,160 --> 00:05:38,960

basically we started

178

00:05:36,000 --> 00:05:40,880

by being really interested in.net and we

179

00:05:38,960 --> 00:05:43,199

didn't really like what delphi was going

180

00:05:40,880 --> 00:05:45,600

on the net side so we said hey how hard

181

00:05:43,199 --> 00:05:47,520

can it be to do our own compiler right

182

00:05:45,600 --> 00:05:48,720

so basically we started out with with

183

00:05:47,520 --> 00:05:50,320

our object password

184

00:05:48,720 --> 00:05:52,320

language which is called oxygen which

185

00:05:50,320 --> 00:05:53,280

basically started off pretty much where

186

00:05:52,320 --> 00:05:55,360

delphi was and

187

00:05:53,280 --> 00:05:57,039

and grew since and basically we did that

188

00:05:55,360 --> 00:05:59,280

for net and that was basically

189

00:05:57,039 --> 00:06:00,960

how the whole thing got started and we

190

00:05:59,280 --> 00:06:02,639

did that for

191

00:06:00,960 --> 00:06:05,039

i know three four versions i want to say

192

00:06:02,639 --> 00:06:07,440

till about 2008 maybe

193

00:06:05,039 --> 00:06:09,440

then we started adding java as a as a

194

00:06:07,440 --> 00:06:11,280

backend platform so still object pascal

195

00:06:09,440 --> 00:06:13,440

but you could compile to java

196

00:06:11,280 --> 00:06:14,720

which obviously at the time was getting

197

00:06:13,440 --> 00:06:16,560

more interesting again

198

00:06:14,720 --> 00:06:19,039

because of android uh coming up at the

199

00:06:16,560 --> 00:06:21,360

time so they probably more like 2009 i

200

00:06:19,039 --> 00:06:22,880

want to say um

201

00:06:21,360 --> 00:06:24,160

yeah and then we basically just kept

202

00:06:22,880 --> 00:06:24,560

drawing the product from there so we

203

00:06:24,160 --> 00:06:26,639

added

204

00:06:24,560 --> 00:06:27,840

c sharp as a language we added swift as

205

00:06:26,639 --> 00:06:31,039

a language

206

00:06:27,840 --> 00:06:34,319

we added coco as the third platform

207

00:06:31,039 --> 00:06:37,520

we added java as a language we added

208

00:06:34,319 --> 00:06:39,520

go as a language and then we added uh

209

00:06:37,520 --> 00:06:41,120

our sort of native platform island we

210

00:06:39,520 --> 00:06:42,319

call it which basically has to compile

211

00:06:41,120 --> 00:06:44,720

natively to

212

00:06:42,319 --> 00:06:46,880

for mac and io for mac and windows and

213

00:06:44,720 --> 00:06:48,160

linux and web assembly

214

00:06:46,880 --> 00:06:50,000

so basically those those are the

215

00:06:48,160 --> 00:06:50,639

platforms and the languages we we

216

00:06:50,000 --> 00:06:52,160

support

217

00:06:50,639 --> 00:06:53,919

and then now of course while we're

218

00:06:52,160 --> 00:06:56,479

talking here with you

219

00:06:53,919 --> 00:06:58,319

uh is that we're adding visual basic uh

220

00:06:56,479 --> 00:07:00,319

as sort of our sixth language we're in

221

00:06:58,319 --> 00:07:04,080

the process of adding that right now

222

00:07:00,319 --> 00:07:05,199

and uh well we qb64 came up as a way to

223

00:07:04,080 --> 00:07:08,000

bring up basic

224

00:07:05,199 --> 00:07:09,840

specifically quick basic back for people

225

00:07:08,000 --> 00:07:11,680

who are using modern platforms but in

226

00:07:09,840 --> 00:07:14,479

your case i want to ask you about

227

00:07:11,680 --> 00:07:15,440

elements in general uh most languages

228

00:07:14,479 --> 00:07:18,400

when they come up

229

00:07:15,440 --> 00:07:19,599

when they come to b they already have a

230

00:07:18,400 --> 00:07:23,599

set of support

231

00:07:19,599 --> 00:07:26,639

uh software compilers etc why

232

00:07:23,599 --> 00:07:28,720

why another right yes so so so our

233

00:07:26,639 --> 00:07:29,840

our idea really is that languages

234

00:07:28,720 --> 00:07:31,360

shouldn't really be tied to the

235

00:07:29,840 --> 00:07:33,039

platforms right like

236

00:07:31,360 --> 00:07:34,479

like like traditionally it's like if you

237

00:07:33,039 --> 00:07:36,000

want to write for net or microsoft

238

00:07:34,479 --> 00:07:37,039

platform you got to use c sharp if you

239

00:07:36,000 --> 00:07:39,199

want to write for apple

240

00:07:37,039 --> 00:07:41,039

you have to use objective c or now swift

241

00:07:39,199 --> 00:07:43,599

right if you want to write for android

242

00:07:41,039 --> 00:07:45,120

you got to use java or kotlin or or

243

00:07:43,599 --> 00:07:47,360

something like that right so

244

00:07:45,120 --> 00:07:48,879

our idea was that basically the language

245

00:07:47,360 --> 00:07:51,039

shouldn't be tied to the platform or

246

00:07:48,879 --> 00:07:52,720

vice versa so it would be nice to

247

00:07:51,039 --> 00:07:55,520

pick the language you like and pick the

248

00:07:52,720 --> 00:07:57,360

platform you like or even the platforms

249

00:07:55,520 --> 00:07:59,680

and just use that language everywhere

250

00:07:57,360 --> 00:08:01,680

right so that's basically the

251

00:07:59,680 --> 00:08:03,280

then it's like the the base philosophy

252

00:08:01,680 --> 00:08:06,319

behind elements

253

00:08:03,280 --> 00:08:09,919

and it's really cool well uh and

254

00:08:06,319 --> 00:08:13,599

now you're adding visual basic support

255

00:08:09,919 --> 00:08:16,800

in 2020 i mean back in

256

00:08:13,599 --> 00:08:17,680

uh that guy i can pronounce his name

257

00:08:16,800 --> 00:08:20,400

distra

258

00:08:17,680 --> 00:08:21,199

whatever his name was uh basic was

259

00:08:20,400 --> 00:08:25,440

already looked

260

00:08:21,199 --> 00:08:26,800

uh frowned upon and why basic in 2020

261

00:08:25,440 --> 00:08:29,120

i mean there's a couple of factors i

262

00:08:26,800 --> 00:08:30,479

mean one is uh i mean obviously the idea

263

00:08:29,120 --> 00:08:32,080

came from a colleague

264

00:08:30,479 --> 00:08:34,640

from a customer and a friend of mine

265

00:08:32,080 --> 00:08:35,839

coming to me and saying hey

266

00:08:34,640 --> 00:08:38,000

you got all these languages you got this

267

00:08:35,839 --> 00:08:40,959

great compiler he was using oxygen

268

00:08:38,000 --> 00:08:42,399

but i really love visual basic could you

269

00:08:40,959 --> 00:08:43,519

add visual basic

270

00:08:42,399 --> 00:08:45,279

and it was like obviously you're not

271

00:08:43,519 --> 00:08:46,560

going to edit just for one person asking

272

00:08:45,279 --> 00:08:47,680

right but then

273

00:08:46,560 --> 00:08:49,360

there's confounding factors that

274

00:08:47,680 --> 00:08:50,160

microsoft seems to be phasing out visual

275

00:08:49,360 --> 00:08:51,839

basic right now

276

00:08:50,160 --> 00:08:54,399

right so they're not really they said

277

00:08:51,839 --> 00:08:56,880

they're not enhancing the language

278

00:08:54,399 --> 00:08:58,959

they're sort of facing out like what new

279

00:08:56,880 --> 00:09:00,160

platform features in say.net five six

280

00:08:58,959 --> 00:09:01,040

seven and so on are going to be

281

00:09:00,160 --> 00:09:03,040

supported

282

00:09:01,040 --> 00:09:05,440

i think like even quite some major

283

00:09:03,040 --> 00:09:07,600

things in in.5 coming

284

00:09:05,440 --> 00:09:09,600

always right next month right are aren't

285

00:09:07,600 --> 00:09:11,040

already supported with visual basic

286

00:09:09,600 --> 00:09:12,959

so there's a lot of visual basic

287

00:09:11,040 --> 00:09:14,320

developers out there that sort of

288

00:09:12,959 --> 00:09:16,240

don't know where to go right do they

289

00:09:14,320 --> 00:09:16,880

want to port everybody has been orphaned

290

00:09:16,240 --> 00:09:19,279

right yeah

291

00:09:16,880 --> 00:09:20,399

exactly yeah so so uh the way we see it

292

00:09:19,279 --> 00:09:22,240

it's a way

293

00:09:20,399 --> 00:09:24,320

for one thing for visual basic

294

00:09:22,240 --> 00:09:25,760

developers to keep using their code

295

00:09:24,320 --> 00:09:27,440

with a modern compiler that's going to

296

00:09:25,760 --> 00:09:29,120

get enhancements already has gotten

297

00:09:27,440 --> 00:09:30,640

enhancements to the language

298

00:09:29,120 --> 00:09:32,800

and it's going to be keep being

299

00:09:30,640 --> 00:09:36,560

supported over the foreseeable future

300

00:09:32,800 --> 00:09:38,160

for net 10 11 12 whatever um but also of

301

00:09:36,560 --> 00:09:39,519

course use their skills on the other

302

00:09:38,160 --> 00:09:41,839

platforms because that the other thing

303

00:09:39,519 --> 00:09:43,040

of our compiler is

304

00:09:41,839 --> 00:09:44,720

no matter which of the languages you

305

00:09:43,040 --> 00:09:46,080

pick you can then use it for any

306

00:09:44,720 --> 00:09:47,519

platform right so you could

307

00:09:46,080 --> 00:09:49,839

if you like visual basic you can write

308

00:09:47,519 --> 00:09:51,120

visual basic code but you compile it for

309

00:09:49,839 --> 00:09:53,120

ios

310

00:09:51,120 --> 00:09:55,200

to run an iphone right and i'm not

311

00:09:53,120 --> 00:09:56,399

saying like like xamarin where like

312

00:09:55,200 --> 00:09:59,279

you're compiling for

313

00:09:56,399 --> 00:10:00,880

net and then you have like some

314

00:09:59,279 --> 00:10:02,560

compatibility layer that makes the

315

00:10:00,880 --> 00:10:04,480

netcode run on ios no

316

00:10:02,560 --> 00:10:06,320

you're actually compiling two of the

317

00:10:04,480 --> 00:10:07,680

coco classes that apple provides

318

00:10:06,320 --> 00:10:09,680

but you're writing your code in visual

319

00:10:07,680 --> 00:10:10,560

basic right so that must have been a

320

00:10:09,680 --> 00:10:13,680

challenge i mean

321

00:10:10,560 --> 00:10:14,880

finding the equivalences i mean the

322

00:10:13,680 --> 00:10:15,839

thing the thing is if you think about it

323

00:10:14,880 --> 00:10:17,200

like all the languages we've been

324

00:10:15,839 --> 00:10:19,200

talking about they're all

325

00:10:17,200 --> 00:10:20,240

pretty similar i mean except maybe with

326

00:10:19,200 --> 00:10:21,440

go

327

00:10:20,240 --> 00:10:23,120

but i mean they're all objective

328

00:10:21,440 --> 00:10:24,399

object-oriented languages right so you

329

00:10:23,120 --> 00:10:25,920

have the same you have like you have

330

00:10:24,399 --> 00:10:28,720

classes you get

331

00:10:25,920 --> 00:10:29,519

properties methods you got events in.net

332

00:10:28,720 --> 00:10:31,760

which you don't have on the other

333

00:10:29,519 --> 00:10:33,040

platforms you got interfaces

334

00:10:31,760 --> 00:10:36,640

things like that so so most of the

335

00:10:33,040 --> 00:10:38,800

concepts are are the same or similar and

336

00:10:36,640 --> 00:10:40,640

and more importantly all the apis that

337

00:10:38,800 --> 00:10:43,200

you need to talk to on the platforms

338

00:10:40,640 --> 00:10:44,640

they're all sort of following not the

339

00:10:43,200 --> 00:10:45,839

same design but that

340

00:10:44,640 --> 00:10:47,760

they built on the same founding

341

00:10:45,839 --> 00:10:49,600

principles again of you have classes

342

00:10:47,760 --> 00:10:51,040

with properties and with methods that

343

00:10:49,600 --> 00:10:52,320

you call and

344

00:10:51,040 --> 00:10:54,560

with interfaces that you're going to

345

00:10:52,320 --> 00:10:56,079

implement or things like that right so

346

00:10:54,560 --> 00:10:58,079

so these are all concepts that you can

347

00:10:56,079 --> 00:11:01,360

express in any of the languages

348

00:10:58,079 --> 00:11:02,240

mostly um and again in some places we do

349

00:11:01,360 --> 00:11:04,000

have to or

350

00:11:02,240 --> 00:11:05,440

have decided to provide extensions to

351

00:11:04,000 --> 00:11:07,680

the languages uh

352

00:11:05,440 --> 00:11:10,240

to make that easier so for example one

353

00:11:07,680 --> 00:11:12,000

one example is uh that objective c

354

00:11:10,240 --> 00:11:13,600

uh i know if you're familiar with it it

355

00:11:12,000 --> 00:11:15,360

has a really expressive

356

00:11:13,600 --> 00:11:16,800

method syntax where basically you have

357

00:11:15,360 --> 00:11:18,399

the parameter names

358

00:11:16,800 --> 00:11:20,480

interspersed with parts of the method

359

00:11:18,399 --> 00:11:23,600

name so you might have like

360

00:11:20,480 --> 00:11:25,279

application parameter first was launched

361

00:11:23,600 --> 00:11:26,000

with options and then second parameter

362

00:11:25,279 --> 00:11:27,440

right

363

00:11:26,000 --> 00:11:30,320

so it's not like one name for the method

364

00:11:27,440 --> 00:11:32,560

but it's two which doesn't really

365

00:11:30,320 --> 00:11:33,600

it isn't very expressible in in in the

366

00:11:32,560 --> 00:11:35,360

other languages so

367

00:11:33,600 --> 00:11:37,200

for that we like added special syntaxes

368

00:11:35,360 --> 00:11:40,240

to make that more intuitive

369

00:11:37,200 --> 00:11:41,040

but in general most of like how the apis

370

00:11:40,240 --> 00:11:43,200

look they're very

371

00:11:41,040 --> 00:11:44,480

easily consumable from from different

372

00:11:43,200 --> 00:11:45,440

languages because they are they are

373

00:11:44,480 --> 00:11:48,160

pretty similar

374

00:11:45,440 --> 00:11:50,399

so this one guy asked you about the

375

00:11:48,160 --> 00:11:53,279

feasibility of adding visual basic

376

00:11:50,399 --> 00:11:54,480

into the bunch right but you probably

377

00:11:53,279 --> 00:11:55,440

because you guys are a commercial

378

00:11:54,480 --> 00:11:58,800

product you're not

379

00:11:55,440 --> 00:12:00,959

hobbyist like we are right and uh there

380

00:11:58,800 --> 00:12:02,720

there must have been some uh market

381

00:12:00,959 --> 00:12:06,000

research regarding the

382

00:12:02,720 --> 00:12:06,800

the marketability of that i'm curious

383

00:12:06,000 --> 00:12:09,600

about

384

00:12:06,800 --> 00:12:10,880

how popular that has proven to be yeah

385

00:12:09,600 --> 00:12:12,959

but as i said like i think i think

386

00:12:10,880 --> 00:12:15,120

like the biggest factor that made us

387

00:12:12,959 --> 00:12:17,040

consider it was that

388

00:12:15,120 --> 00:12:19,200

visual basic is sort of being phased out

389

00:12:17,040 --> 00:12:22,240

by microsoft and lots of people

390

00:12:19,200 --> 00:12:24,160

don't know where to go so so our search

391

00:12:22,240 --> 00:12:25,760

research showed us that i think there's

392

00:12:24,160 --> 00:12:26,800

a there's a there's a large

393

00:12:25,760 --> 00:12:29,040

amount of people that are going to be

394

00:12:26,800 --> 00:12:30,000

interested in this for for that reason

395

00:12:29,040 --> 00:12:31,440

alone right

396

00:12:30,000 --> 00:12:33,360

i mean like even like take away the

397

00:12:31,440 --> 00:12:35,839

other platforms take everything else

398

00:12:33,360 --> 00:12:37,760

just being able to say hey you can keep

399

00:12:35,839 --> 00:12:40,320

using your existing code

400

00:12:37,760 --> 00:12:42,079

over the next 10 versions of net in in

401

00:12:40,320 --> 00:12:43,360

five years and six years and 10 years

402

00:12:42,079 --> 00:12:44,480

even though microsoft is going to stop

403

00:12:43,360 --> 00:12:46,639

supporting it

404

00:12:44,480 --> 00:12:49,200

that alone already was a very big factor

405

00:12:46,639 --> 00:12:51,360

for for lots of people right

406

00:12:49,200 --> 00:12:52,800

and again then on top of that we have

407

00:12:51,360 --> 00:12:54,240

the additional benefits of we're going

408

00:12:52,800 --> 00:12:55,920

to keep improving the language we've

409

00:12:54,240 --> 00:12:57,360

already improved the language

410

00:12:55,920 --> 00:12:59,120

uh and we're bringing it to the

411

00:12:57,360 --> 00:13:02,560

different platforms right well

412

00:12:59,120 --> 00:13:06,639

uh regarding microsoft's uh

413

00:13:02,560 --> 00:13:09,680

control of everything i mean uh

414

00:13:06,639 --> 00:13:12,160

most languages are open sourced and um

415

00:13:09,680 --> 00:13:14,160

for example we have gcc that will

416

00:13:12,160 --> 00:13:17,839

compile c plus plus on

417

00:13:14,160 --> 00:13:19,360

any nc in any platform but

418

00:13:17,839 --> 00:13:21,920

you guys are implementing something

419

00:13:19,360 --> 00:13:23,120

that's that's pretty closed gardens for

420

00:13:21,920 --> 00:13:25,680

microsoft isn't it

421

00:13:23,120 --> 00:13:27,200

right how does it work i mean basically

422

00:13:25,680 --> 00:13:29,200

we have our own compiler

423

00:13:27,200 --> 00:13:31,279

start to finish so we're not like using

424

00:13:29,200 --> 00:13:32,720

roslyn or

425

00:13:31,279 --> 00:13:34,720

any existing compiler infrastructure

426

00:13:32,720 --> 00:13:37,279

except for the back end we use llvm

427

00:13:34,720 --> 00:13:38,399

like for the for the native platforms

428

00:13:37,279 --> 00:13:40,800

but other than that it's

429

00:13:38,399 --> 00:13:42,240

it's our own front-end compiler it's our

430

00:13:40,800 --> 00:13:43,680

own like middle that

431

00:13:42,240 --> 00:13:45,120

brings all the languages together and

432

00:13:43,680 --> 00:13:46,000

it's our own back-ends for all the

433

00:13:45,120 --> 00:13:47,600

platforms

434

00:13:46,000 --> 00:13:49,199

and that's really what allowed us to to

435

00:13:47,600 --> 00:13:50,480

sort of do the

436

00:13:49,199 --> 00:13:52,160

different languages different platform

437

00:13:50,480 --> 00:13:53,440

things right like well like like people

438

00:13:52,160 --> 00:13:54,880

have to say you could just use the

439

00:13:53,440 --> 00:13:57,199

russell in front and

440

00:13:54,880 --> 00:13:58,240

and keep extending that right but then

441

00:13:57,199 --> 00:13:59,440

the thing is

442

00:13:58,240 --> 00:14:01,519

that's not going to be compatible with

443

00:13:59,440 --> 00:14:03,279

our other languages right and what we

444

00:14:01,519 --> 00:14:04,800

can do with our compilers

445

00:14:03,279 --> 00:14:06,959

all the languages go sort of into the

446

00:14:04,800 --> 00:14:07,279

same project tree so you can actually

447

00:14:06,959 --> 00:14:09,360

mix

448

00:14:07,279 --> 00:14:10,959

different languages in the same product

449

00:14:09,360 --> 00:14:11,199

in the same project so you can have like

450

00:14:10,959 --> 00:14:13,440

a

451

00:14:11,199 --> 00:14:15,279

c sharp file and a vb file and you just

452

00:14:13,440 --> 00:14:18,000

compile them through the same product

453

00:14:15,279 --> 00:14:18,880

to the same project and at compile time

454

00:14:18,000 --> 00:14:20,399

basically

455

00:14:18,880 --> 00:14:22,240

after that parse the compiler doesn't

456

00:14:20,399 --> 00:14:24,240

really care anymore was the c sharp or

457

00:14:22,240 --> 00:14:24,800

was this vb or was this oxygen or was it

458

00:14:24,240 --> 00:14:26,240

java

459

00:14:24,800 --> 00:14:27,839

that's awesome right so and so for that

460

00:14:26,240 --> 00:14:28,480

we sort of need everything to be on our

461

00:14:27,839 --> 00:14:30,880

level and

462

00:14:28,480 --> 00:14:32,720

also that gives us a lot of flex power

463

00:14:30,880 --> 00:14:33,760

and power and flexibility in terms of

464

00:14:32,720 --> 00:14:35,040

going where we want to go

465

00:14:33,760 --> 00:14:37,279

and making making the kinds of

466

00:14:35,040 --> 00:14:40,160

extensions to the language

467

00:14:37,279 --> 00:14:41,120

that we think we need um and for

468

00:14:40,160 --> 00:14:42,160

different languages we have sort of

469

00:14:41,120 --> 00:14:44,480

different philosophies

470

00:14:42,160 --> 00:14:46,079

for how drastically we're making changes

471

00:14:44,480 --> 00:14:48,160

or not making changes

472

00:14:46,079 --> 00:14:49,600

um to like so what the official language

473

00:14:48,160 --> 00:14:52,320

is like

474

00:14:49,600 --> 00:14:54,079

but i think with vb i mean given that

475

00:14:52,320 --> 00:14:55,360

microsoft at least as of right now says

476

00:14:54,079 --> 00:14:57,440

they're not going to be developed any

477

00:14:55,360 --> 00:15:00,000

further so our stance is basically

478

00:14:57,440 --> 00:15:00,639

our goal is to implement vb as it is

479

00:15:00,000 --> 00:15:02,880

right now

480

00:15:00,639 --> 00:15:04,320

and then sort of see what other feature

481

00:15:02,880 --> 00:15:07,199

features do people want

482

00:15:04,320 --> 00:15:08,399

on top right like for example already we

483

00:15:07,199 --> 00:15:10,000

have a couple

484

00:15:08,399 --> 00:15:12,240

like we have pointer support something

485

00:15:10,000 --> 00:15:13,920

we added to vb which comes

486

00:15:12,240 --> 00:15:16,240

very handy even on.net if you want to

487

00:15:13,920 --> 00:15:17,760

interact with certain c-sharp apis you

488

00:15:16,240 --> 00:15:19,600

need pointers right

489

00:15:17,760 --> 00:15:21,360

but of course on the on the more native

490

00:15:19,600 --> 00:15:23,040

platforms you you really do need pointer

491

00:15:21,360 --> 00:15:24,720

support if you want to like write a data

492

00:15:23,040 --> 00:15:26,800

f132 application right

493

00:15:24,720 --> 00:15:27,760

so you guys support this handful of

494

00:15:26,800 --> 00:15:31,199

languages

495

00:15:27,760 --> 00:15:32,720

and uh as vb.net is being discontinued

496

00:15:31,199 --> 00:15:35,519

you guys are going to make improvements

497

00:15:32,720 --> 00:15:38,800

as you said according to necessity right

498

00:15:35,519 --> 00:15:39,600

according to what uh comes up right yeah

499

00:15:38,800 --> 00:15:41,920

yeah but both

500

00:15:39,600 --> 00:15:43,680

both necessity in terms of like i know

501

00:15:41,920 --> 00:15:44,399

like i said for coco we had to make

502

00:15:43,680 --> 00:15:46,880

certain

503

00:15:44,399 --> 00:15:48,800

changes to make the apis more accessible

504

00:15:46,880 --> 00:15:50,880

like say we add a new platform

505

00:15:48,800 --> 00:15:52,320

next year there might be something we

506

00:15:50,880 --> 00:15:53,279

got to tweak in the language to add a

507

00:15:52,320 --> 00:15:54,959

future

508

00:15:53,279 --> 00:15:56,800

to make it easier to communicate with

509

00:15:54,959 --> 00:15:58,320

that right and of course we're also

510

00:15:56,800 --> 00:15:59,680

looking for like like just feedback from

511

00:15:58,320 --> 00:16:01,759

people say hey

512

00:15:59,680 --> 00:16:03,279

i want a loop that does this or can can

513

00:16:01,759 --> 00:16:06,880

we do a feature that does this

514

00:16:03,279 --> 00:16:08,480

and and and we we add those right

515

00:16:06,880 --> 00:16:10,000

and there's and there's also a lot of

516

00:16:08,480 --> 00:16:11,440

things that sort of are basically like

517

00:16:10,000 --> 00:16:14,240

like core in the compiler

518

00:16:11,440 --> 00:16:15,839

that like are sort of language

519

00:16:14,240 --> 00:16:17,440

independent that that you just sort of

520

00:16:15,839 --> 00:16:18,880

get for free so for example for example

521

00:16:17,440 --> 00:16:20,560

we have support for

522

00:16:18,880 --> 00:16:22,399

aspect oriented programs so you can

523

00:16:20,560 --> 00:16:23,920

write your own

524

00:16:22,399 --> 00:16:26,079

attributes basically you can put on

525

00:16:23,920 --> 00:16:27,600

classes and those attributes run inside

526

00:16:26,079 --> 00:16:28,959

the compiler can actually affect the

527

00:16:27,600 --> 00:16:30,160

code that's generated

528

00:16:28,959 --> 00:16:32,560

and that's something that just sort of

529

00:16:30,160 --> 00:16:33,920

comes free to to the vb side of the

530

00:16:32,560 --> 00:16:35,360

compiler because that

531

00:16:33,920 --> 00:16:37,360

that doesn't really care about language

532

00:16:35,360 --> 00:16:39,360

right i see

533

00:16:37,360 --> 00:16:41,040

now regarding the naming you have

534

00:16:39,360 --> 00:16:43,440

elements in general and

535

00:16:41,040 --> 00:16:44,320

i see that there is fire and there's

536

00:16:43,440 --> 00:16:47,360

water

537

00:16:44,320 --> 00:16:48,720

these are logically the the source for

538

00:16:47,360 --> 00:16:51,199

elements but was that

539

00:16:48,720 --> 00:16:52,959

from the start or did it come after

540

00:16:51,199 --> 00:16:54,560

element was chosen as a name

541

00:16:52,959 --> 00:16:56,320

no i mean it sort of grew grammatically

542

00:16:54,560 --> 00:16:58,160

i mean originally um when we started

543

00:16:56,320 --> 00:17:00,800

back in 2004

544

00:16:58,160 --> 00:17:02,480

uh the the we had the the compiler for

545

00:17:00,800 --> 00:17:03,279

object preschool4.net right and that was

546

00:17:02,480 --> 00:17:05,760

called chrome

547

00:17:03,279 --> 00:17:08,720

back then and some right sometime around

548

00:17:05,760 --> 00:17:11,679

2008 we renamed it to oxygen

549

00:17:08,720 --> 00:17:12,640

for uh reasons you can imagine and so

550

00:17:11,679 --> 00:17:14,400

basically oxygen

551

00:17:12,640 --> 00:17:15,679

at that point was our object pascal

552

00:17:14,400 --> 00:17:17,839

compiler and then

553

00:17:15,679 --> 00:17:19,760

as we started adding more languages we

554

00:17:17,839 --> 00:17:20,720

figured hey we need

555

00:17:19,760 --> 00:17:22,959

different names for the different

556

00:17:20,720 --> 00:17:24,319

languages right so we figured hey let's

557

00:17:22,959 --> 00:17:26,640

use hydrogen as

558

00:17:24,319 --> 00:17:28,319

code name for our c sharp compiler that

559

00:17:26,640 --> 00:17:30,720

was the second language we added

560

00:17:28,319 --> 00:17:32,000

and then basically hey now we get two we

561

00:17:30,720 --> 00:17:34,320

gotta find the name for the whole thing

562

00:17:32,000 --> 00:17:36,480

together let's call it elements so

563

00:17:34,320 --> 00:17:38,000

basically all the languages internally

564

00:17:36,480 --> 00:17:41,200

or sometimes externally

565

00:17:38,000 --> 00:17:42,720

they have sort of chemical elements

566

00:17:41,200 --> 00:17:44,320

code names and then basically when we

567

00:17:42,720 --> 00:17:46,559

started with the ide

568

00:17:44,320 --> 00:17:48,559

i figured hey why not take elements sort

569

00:17:46,559 --> 00:17:49,120

of in the other direction and use them

570

00:17:48,559 --> 00:17:52,720

more like

571

00:17:49,120 --> 00:17:54,799

what do you call it alchemic or esoteric

572

00:17:52,720 --> 00:17:56,080

elements and basically called the ides

573

00:17:54,799 --> 00:17:58,080

fire and water

574

00:17:56,080 --> 00:18:00,240

that's very pretty cool it's pretty

575

00:17:58,080 --> 00:18:02,880

clever i mean choosing that now

576

00:18:00,240 --> 00:18:03,600

regarding uh the names you specifically

577

00:18:02,880 --> 00:18:05,600

market

578

00:18:03,600 --> 00:18:08,080

as elements like oxygen for object

579

00:18:05,600 --> 00:18:08,799

pascal mercury for visual basic why keep

580

00:18:08,080 --> 00:18:11,120

it

581

00:18:08,799 --> 00:18:12,400

because of copyright issues i assume

582

00:18:11,120 --> 00:18:14,240

yeah well basically the idea is that

583

00:18:12,400 --> 00:18:14,960

visual basic and visualization.net is a

584

00:18:14,240 --> 00:18:17,360

trademark

585

00:18:14,960 --> 00:18:19,120

uh by microsoft so that's not something

586

00:18:17,360 --> 00:18:21,760

we can use as a name

587

00:18:19,120 --> 00:18:24,080

for the product so that's why as we say

588

00:18:21,760 --> 00:18:25,840

it's got to be called remotex mercury

589

00:18:24,080 --> 00:18:28,720

and then basically we say it's visual

590

00:18:25,840 --> 00:18:30,480

basic compatible right regarding all the

591

00:18:28,720 --> 00:18:30,720

other languages for example swift this

592

00:18:30,480 --> 00:18:32,400

is

593

00:18:30,720 --> 00:18:33,919

just a curiosity it's not something i

594

00:18:32,400 --> 00:18:37,039

can touch because

595

00:18:33,919 --> 00:18:39,360

uh i don't uh program in any of these

596

00:18:37,039 --> 00:18:41,280

other languages but i know that swift is

597

00:18:39,360 --> 00:18:43,120

continuously evolving because apple just

598

00:18:41,280 --> 00:18:44,000

created it and it's even a meme that

599

00:18:43,120 --> 00:18:47,280

people

600

00:18:44,000 --> 00:18:49,440

find uh job posts that say you require

601

00:18:47,280 --> 00:18:51,280

a number of years of experience in swift

602

00:18:49,440 --> 00:18:52,080

when it was created in less the time

603

00:18:51,280 --> 00:18:54,480

than that

604

00:18:52,080 --> 00:18:56,480

yeah keeping up with that must be crazy

605

00:18:54,480 --> 00:18:59,280

i mean with all the updates and uh

606

00:18:56,480 --> 00:19:00,160

with uh a new version of ios coming up

607

00:18:59,280 --> 00:19:03,039

every year

608

00:19:00,160 --> 00:19:05,120

and uh xcode being updated continuously

609

00:19:03,039 --> 00:19:06,720

that must be crazy work

610

00:19:05,120 --> 00:19:08,160

it it was in the beginning i mean i

611

00:19:06,720 --> 00:19:10,160

think i think swift i mean

612

00:19:08,160 --> 00:19:12,000

think since version i want to say four

613

00:19:10,160 --> 00:19:13,679

so that was two years ago i think

614

00:19:12,000 --> 00:19:15,360

it settled down a little bit quite quite

615

00:19:13,679 --> 00:19:16,400

a bit like like in the first three or

616

00:19:15,360 --> 00:19:18,160

four versions like

617

00:19:16,400 --> 00:19:19,679

they made drastic changes like even

618

00:19:18,160 --> 00:19:21,440

breaking changes

619

00:19:19,679 --> 00:19:22,720

every year with a new version right but

620

00:19:21,440 --> 00:19:24,000

but right now they're more like fine

621

00:19:22,720 --> 00:19:26,400

tuning they're like

622

00:19:24,000 --> 00:19:27,679

adding sometimes weird sometimes

623

00:19:26,400 --> 00:19:30,000

sensible things

624

00:19:27,679 --> 00:19:31,679

but that's that's pretty easy to to keep

625

00:19:30,000 --> 00:19:32,160

up with on the language side because

626

00:19:31,679 --> 00:19:33,679

actually

627

00:19:32,160 --> 00:19:35,840

most of the changes they're doing these

628

00:19:33,679 --> 00:19:38,320

days are sort of on the

629

00:19:35,840 --> 00:19:38,960

on the library side and we we see a

630

00:19:38,320 --> 00:19:41,520

strict like

631

00:19:38,960 --> 00:19:43,600

philosophical like separation between

632

00:19:41,520 --> 00:19:44,160

the frameworks and the language right so

633

00:19:43,600 --> 00:19:45,679

we're not

634

00:19:44,160 --> 00:19:47,280

like trying to duplicate apple's

635

00:19:45,679 --> 00:19:48,480

framework for our compiler for

636

00:19:47,280 --> 00:19:50,400

everywhere we're just bringing the swift

637

00:19:48,480 --> 00:19:52,000

language everywhere right so

638

00:19:50,400 --> 00:19:54,799

if you're using swift and you're writing

639

00:19:52,000 --> 00:19:56,799

say you get code for android or for io

640

00:19:54,799 --> 00:19:58,559

for or for net you use you're going to

641

00:19:56,799 --> 00:20:00,240

be using.net apis you're not going to be

642

00:19:58,559 --> 00:20:02,960

using apple's apis you're using the

643

00:20:00,240 --> 00:20:05,760

swift language right and the same goes

644

00:20:02,960 --> 00:20:06,480

if you take vb to ios or you take

645

00:20:05,760 --> 00:20:09,919

c-sharp

646

00:20:06,480 --> 00:20:10,240

to i don't know native windows right

647

00:20:09,919 --> 00:20:12,880

you're

648

00:20:10,240 --> 00:20:14,000

using the native win32 apis it's just

649

00:20:12,880 --> 00:20:14,720

the language you're using it's going to

650

00:20:14,000 --> 00:20:17,760

be c-sharp

651

00:20:14,720 --> 00:20:19,679

or vb now regarding the still regarding

652

00:20:17,760 --> 00:20:20,559

the languages you support why not c plus

653

00:20:19,679 --> 00:20:22,720

plus

654

00:20:20,559 --> 00:20:24,559

it's a good question i think mostly

655

00:20:22,720 --> 00:20:26,960

because c plus plus actually

656

00:20:24,559 --> 00:20:29,760

would be really tough to keep up with uh

657

00:20:26,960 --> 00:20:32,880

and it's very convoluted and also very

658

00:20:29,760 --> 00:20:34,559

i want to say orthogonal to

659

00:20:32,880 --> 00:20:36,640

to how our languages work and like i

660

00:20:34,559 --> 00:20:38,080

mean c plus plus is object

661

00:20:36,640 --> 00:20:39,760

oriented but it's a different it's

662

00:20:38,080 --> 00:20:41,760

object oriented in a very different way

663

00:20:39,760 --> 00:20:43,840

than the languages we have

664

00:20:41,760 --> 00:20:44,880

so and also i think the i think the

665

00:20:43,840 --> 00:20:48,080

expectations c

666

00:20:44,880 --> 00:20:49,600

plus developers would have

667

00:20:48,080 --> 00:20:51,440

it being traditionally like a very

668

00:20:49,600 --> 00:20:52,400

unmanaged language right and all our

669

00:20:51,440 --> 00:20:54,080

platforms

670

00:20:52,400 --> 00:20:57,039

even like even the native ones are sort

671

00:20:54,080 --> 00:20:59,600

of either managed.net or java

672

00:20:57,039 --> 00:21:00,480

or sort of semi-managed like like

673

00:20:59,600 --> 00:21:02,960

objective-c

674

00:21:00,480 --> 00:21:04,480

or even our own native platforms and i

675

00:21:02,960 --> 00:21:05,039

think i don't think you could actually

676

00:21:04,480 --> 00:21:08,320

bring c

677

00:21:05,039 --> 00:21:09,520

plus plus to say.net or java in a way

678

00:21:08,320 --> 00:21:10,720

that wouldn't have way too many

679

00:21:09,520 --> 00:21:12,080

compromises that

680

00:21:10,720 --> 00:21:14,159

pretty much any c plus plus developer

681

00:21:12,080 --> 00:21:14,559

would say this doesn't make any sense

682

00:21:14,159 --> 00:21:16,400

right

683

00:21:14,559 --> 00:21:18,080

it would probably be a tough crowd to

684

00:21:16,400 --> 00:21:19,440

manage yeah yeah i

685

00:21:18,080 --> 00:21:22,880

don't i don't think you could please the

686

00:21:19,440 --> 00:21:25,600

the the the the users and i don't think

687

00:21:22,880 --> 00:21:26,880

again like c plus plus actually would be

688

00:21:25,600 --> 00:21:27,760

too much for us to keep up because i

689

00:21:26,880 --> 00:21:28,960

mean

690

00:21:27,760 --> 00:21:30,640

people don't think about it but like i

691

00:21:28,960 --> 00:21:32,080

mean c plus plus is not c plus plus they

692

00:21:30,640 --> 00:21:33,600

have like every what is it like two

693

00:21:32,080 --> 00:21:34,320

three or four years they got like c plus

694

00:21:33,600 --> 00:21:37,039

plus

695

00:21:34,320 --> 00:21:38,559

21 or whatever and every of those

696

00:21:37,039 --> 00:21:40,320

versions like major new stuff

697

00:21:38,559 --> 00:21:41,919

right and like even they're like it's

698

00:21:40,320 --> 00:21:43,520

controversial and have the c plus plus

699

00:21:41,919 --> 00:21:44,159

developers hate the one half that's

700

00:21:43,520 --> 00:21:45,440

being done

701

00:21:44,159 --> 00:21:47,280

and the other people the other half

702

00:21:45,440 --> 00:21:48,559

hates the other changes that are being

703

00:21:47,280 --> 00:21:50,320

made right so

704

00:21:48,559 --> 00:21:52,080

uh i i don't think that's something we

705

00:21:50,320 --> 00:21:52,960

want to touch with the 10 foot pole as

706

00:21:52,080 --> 00:21:56,320

the saying goes

707

00:21:52,960 --> 00:21:57,120

probably not now you guys ram objects

708

00:21:56,320 --> 00:21:59,200

has a pretty

709

00:21:57,120 --> 00:22:00,559

remarkable list of customers famous

710

00:21:59,200 --> 00:22:02,960

people here in this list

711

00:22:00,559 --> 00:22:05,200

and it's very curious to see microsoft

712

00:22:02,960 --> 00:22:07,360

in this list what's that

713

00:22:05,200 --> 00:22:08,960

yeah i can't really talk about what what

714

00:22:07,360 --> 00:22:10,880

individual customers are doing

715

00:22:08,960 --> 00:22:12,400

but i mean we've got a we've got a wide

716

00:22:10,880 --> 00:22:14,720

range of products uh

717

00:22:12,400 --> 00:22:16,080

we can promoting sdk data abstract we

718

00:22:14,720 --> 00:22:17,360

got more products we didn't touch on

719

00:22:16,080 --> 00:22:20,000

including some

720

00:22:17,360 --> 00:22:21,679

some open source products uh so i don't

721

00:22:20,000 --> 00:22:23,120

even know sometimes like what people are

722

00:22:21,679 --> 00:22:24,159

doing or actually most of the time most

723

00:22:23,120 --> 00:22:25,679

of the times i don't know what our

724

00:22:24,159 --> 00:22:28,240

customers are doing right like

725

00:22:25,679 --> 00:22:29,440

most of our customers i don't have

726

00:22:28,240 --> 00:22:31,120

interaction with unless they have

727

00:22:29,440 --> 00:22:32,960

problems and hopefully that's not too

728

00:22:31,120 --> 00:22:34,159

often but nonetheless it's very curious

729

00:22:32,960 --> 00:22:36,000

to see you guys

730

00:22:34,159 --> 00:22:37,360

recreating visual basic and being a

731

00:22:36,000 --> 00:22:39,120

client having

732

00:22:37,360 --> 00:22:41,440

microsoft as a customer that's that's

733

00:22:39,120 --> 00:22:44,960

kind of interesting to see

734

00:22:41,440 --> 00:22:47,120

yeah well mark i'm

735

00:22:44,960 --> 00:22:48,240

really glad with this conversation i'm

736

00:22:47,120 --> 00:22:50,240

really glad that you

737

00:22:48,240 --> 00:22:52,960

took some time to be here with us i mean

738

00:22:50,240 --> 00:22:54,240

we're no of course we're a tiny podcast

739

00:22:52,960 --> 00:22:56,559

on technology

740

00:22:54,240 --> 00:22:58,080

and uh our connection with basic is what

741

00:22:56,559 --> 00:22:59,200

brought us together brought me in

742

00:22:58,080 --> 00:23:01,840

contact with you

743

00:22:59,200 --> 00:23:02,240

and i'm glad you were so open about it

744

00:23:01,840 --> 00:23:04,159

and

745

00:23:02,240 --> 00:23:06,080

is there anything you would like to add

746

00:23:04,159 --> 00:23:08,080

not really i just like i hope

747

00:23:06,080 --> 00:23:09,520

i hope people enjoy what we talked about

748

00:23:08,080 --> 00:23:11,200

i hope people go to our website and

749

00:23:09,520 --> 00:23:13,200

check out mercury you can actually

750

00:23:11,200 --> 00:23:14,960

download a beta version as part of our

751

00:23:13,200 --> 00:23:16,400

free trial now it's still going to be

752

00:23:14,960 --> 00:23:18,480

rough there's still going to be

753

00:23:16,400 --> 00:23:20,159

stuff that isn't going isn't working yet

754

00:23:18,480 --> 00:23:22,080

as you might expect because

755

00:23:20,159 --> 00:23:24,400

the vb language in the compiler is still

756

00:23:22,080 --> 00:23:25,840

beta but we would love your feedback we

757

00:23:24,400 --> 00:23:27,120

also have a pre-order so if you want to

758

00:23:25,840 --> 00:23:28,640

get in early

759

00:23:27,120 --> 00:23:30,960

at some reduced pricing and get your

760

00:23:28,640 --> 00:23:32,720

copy now that's also possible

761

00:23:30,960 --> 00:23:33,919

and also you personally i would love for

762

00:23:32,720 --> 00:23:34,640

you to check it out and let me know what

763

00:23:33,919 --> 00:23:36,240

you think

764

00:23:34,640 --> 00:23:38,559

even though it's not even though it's

765

00:23:36,240 --> 00:23:41,520

not your your kind of basic

766

00:23:38,559 --> 00:23:43,279

yeah i mean i stuck i got stuck with

767

00:23:41,520 --> 00:23:45,760

basic from the 80s

768

00:23:43,279 --> 00:23:47,360

but i did double into a little bit of uh

769

00:23:45,760 --> 00:23:49,120

visual basic myself

770

00:23:47,360 --> 00:23:50,400

i even touched a little bit of delphi

771

00:23:49,120 --> 00:23:52,880

when i was younger

772

00:23:50,400 --> 00:23:53,840

but yeah i mean i'm definitely going to

773

00:23:52,880 --> 00:23:55,360

check it out

774

00:23:53,840 --> 00:23:56,960

i mean who knows maybe you might like

775

00:23:55,360 --> 00:23:58,159

oxygen then because that's like that's

776

00:23:56,960 --> 00:24:00,480

our our objective

777

00:23:58,159 --> 00:24:01,279

which is again it's evolved like light

778

00:24:00,480 --> 00:24:02,880

years from

779

00:24:01,279 --> 00:24:04,960

where delphi was back when we started

780

00:24:02,880 --> 00:24:07,520

when we split off in

781

00:24:04,960 --> 00:24:08,720

well 15 years ago but yeah so how can

782

00:24:07,520 --> 00:24:10,159

people reach you mark

783

00:24:08,720 --> 00:24:11,400

well i mean the best way to find out

784

00:24:10,159 --> 00:24:12,720

about what products is to go to

785

00:24:11,400 --> 00:24:15,760

rammobjects.com that's

786

00:24:12,720 --> 00:24:17,200

rem objects.com and you can follow us on

787

00:24:15,760 --> 00:24:19,039

twitter as well that's also at ram

788

00:24:17,200 --> 00:24:21,360

objects or you can follow me

789

00:24:19,039 --> 00:24:22,640

personally on twitter at dwarfland

790

00:24:21,360 --> 00:24:25,200

that's dwarf as in

791

00:24:22,640 --> 00:24:27,039

small person drawfland but i warn you

792

00:24:25,200 --> 00:24:29,919

that's mostly personal stuff on there

793

00:24:27,039 --> 00:24:30,480

um but yeah check out the product and

794

00:24:29,919 --> 00:24:31,919

hopefully

795

00:24:30,480 --> 00:24:33,279

let me know what you think that's

796

00:24:31,919 --> 00:24:34,559

awesome thank you very much for being

797

00:24:33,279 --> 00:24:37,919

with me here today mark

798

00:24:34,559 --> 00:24:37,919

you're welcome thanks for having me

799

00:24:38,400 --> 00:24:42,799

thank you very much for listening catch

800

00:24:40,640 --> 00:24:46,960

us at qb64.org

801

00:24:42,799 --> 00:25:01,840

forum also at discord.cubi64

802

00:24:46,960 --> 00:25:01,840

join the talk and see you next episode

803

00:25:09,230 --> 00:25:12,410

[Music]

804

00:25:16,559 --> 00:25:18,640

you