1

00:00:02,320 --> 00:00:07,040

welcome everyone to another episode of

2

00:00:04,400 --> 00:00:08,320

qb64 report today here with me i have

3

00:00:07,040 --> 00:00:12,400

bill

4

00:00:08,320 --> 00:00:15,599

hello zach hello and dave

5

00:00:12,400 --> 00:00:17,920

hey there welcome everyone and for

6

00:00:15,599 --> 00:00:19,680

all of you guys listening to us we're

7

00:00:17,920 --> 00:00:22,400

gonna be discussing

8

00:00:19,680 --> 00:00:23,359

coding practices or coding styles if you

9

00:00:22,400 --> 00:00:26,960

will

10

00:00:23,359 --> 00:00:29,519

and of course we're not the patrol

11

00:00:26,960 --> 00:00:30,000

that's gonna control how your your code

12

00:00:29,519 --> 00:00:32,800

we're just

13

00:00:30,000 --> 00:00:33,120

actually gonna be chatting and telling

14

00:00:32,800 --> 00:00:35,680

you

15

00:00:33,120 --> 00:00:36,480

our own visions and experiences with it

16

00:00:35,680 --> 00:00:39,040

for example

17

00:00:36,480 --> 00:00:40,239

myself i like to write using the

18

00:00:39,040 --> 00:00:42,559

keyboard

19

00:00:40,239 --> 00:00:45,840

and typing on a screen that's my coding

20

00:00:42,559 --> 00:00:45,840

style what about you guys

21

00:00:46,000 --> 00:00:50,399

ah well yeah styles very charged word so

22

00:00:48,719 --> 00:00:53,280

without doing all of the rants all

23

00:00:50,399 --> 00:00:54,000

in the beginning there's really two

24

00:00:53,280 --> 00:00:56,879

takes on it

25

00:00:54,000 --> 00:00:58,160

one is that style is the thing that the

26

00:00:56,879 --> 00:00:59,600

compiler ignores

27

00:00:58,160 --> 00:01:01,440

it's the aspect of your typing that the

28

00:00:59,600 --> 00:01:03,039

computer doesn't care about uh but

29

00:01:01,440 --> 00:01:05,199

paradoxically it's the uh

30

00:01:03,039 --> 00:01:06,159

thing that's most important to human

31

00:01:05,199 --> 00:01:08,240

beings so

32

00:01:06,159 --> 00:01:10,080

since we are programming computers after

33

00:01:08,240 --> 00:01:11,280

all how important is style that's a

34

00:01:10,080 --> 00:01:13,680

great question

35

00:01:11,280 --> 00:01:15,439

hence why we're coming together to flesh

36

00:01:13,680 --> 00:01:18,080

this all out

37

00:01:15,439 --> 00:01:20,400

yeah i mean just like master guy sharing

38

00:01:18,080 --> 00:01:21,520

his amazing 3d code this week at the

39

00:01:20,400 --> 00:01:24,560

forums

40

00:01:21,520 --> 00:01:25,119

which is like a few lines long and does

41

00:01:24,560 --> 00:01:27,360

this

42

00:01:25,119 --> 00:01:29,040

incredible intricate 3d world where you

43

00:01:27,360 --> 00:01:30,159

can navigate until you leave this

44

00:01:29,040 --> 00:01:32,640

structure

45

00:01:30,159 --> 00:01:33,200

the first time i looked at his code

46

00:01:32,640 --> 00:01:34,799

running i

47

00:01:33,200 --> 00:01:36,479

i just saw the video the youtube video

48

00:01:34,799 --> 00:01:38,479

he shared it was

49

00:01:36,479 --> 00:01:40,320

wow i was like amazing then somebody

50

00:01:38,479 --> 00:01:42,320

said did you guys run this

51

00:01:40,320 --> 00:01:44,159

because they had problems in linux and i

52

00:01:42,320 --> 00:01:44,799

i was like no i didn't run it i saw the

53

00:01:44,159 --> 00:01:47,920

demo

54

00:01:44,799 --> 00:01:48,560

when i tried to run it it worked but i

55

00:01:47,920 --> 00:01:50,960

couldn't

56

00:01:48,560 --> 00:01:52,000

grasp what was going on because he wrote

57

00:01:50,960 --> 00:01:55,280

it so

58

00:01:52,000 --> 00:01:58,240

compact and several count several

59

00:01:55,280 --> 00:02:00,880

commands in a single line and i was like

60

00:01:58,240 --> 00:02:03,280

okay good it's cold but i didn't even

61

00:02:00,880 --> 00:02:05,040

try to parse it mentally i just let the

62

00:02:03,280 --> 00:02:07,680

computer do its thing

63

00:02:05,040 --> 00:02:08,160

and then voluntarily he came and posted

64

00:02:07,680 --> 00:02:10,239

hey

65

00:02:08,160 --> 00:02:11,200

here's a more readable version and it

66

00:02:10,239 --> 00:02:14,080

was like

67

00:02:11,200 --> 00:02:15,200

oh i can see now i was blind but now i

68

00:02:14,080 --> 00:02:18,160

see

69

00:02:15,200 --> 00:02:19,520

and uh it makes a world of a difference

70

00:02:18,160 --> 00:02:21,760

it's really for a

71

00:02:19,520 --> 00:02:24,800

it's like a gesture of kindness to our

72

00:02:21,760 --> 00:02:24,800

fellow programmers right

73

00:02:25,840 --> 00:02:30,239

exactly yeah and it invokes and reminds

74

00:02:28,879 --> 00:02:30,640

us that there's a human element to all

75

00:02:30,239 --> 00:02:32,560

this

76

00:02:30,640 --> 00:02:34,319

the computer doesn't really care what

77

00:02:32,560 --> 00:02:36,000

you're right but certainly the people do

78

00:02:34,319 --> 00:02:38,080

the most important person being the

79

00:02:36,000 --> 00:02:41,040

future version of yourself you may

80

00:02:38,080 --> 00:02:42,720

accidentally outwit yourself if i write

81

00:02:41,040 --> 00:02:43,680

things badly or just use too much

82

00:02:42,720 --> 00:02:45,840

cleverness

83

00:02:43,680 --> 00:02:46,879

uh early in the wee hours of one morning

84

00:02:45,840 --> 00:02:52,160

or another

85

00:02:46,879 --> 00:02:54,239

true um yes dave what do you suppose uh

86

00:02:52,160 --> 00:02:55,680

you you make large enough games where

87

00:02:54,239 --> 00:02:58,480

style has to be

88

00:02:55,680 --> 00:03:00,560

an integral uh element here to your

89

00:02:58,480 --> 00:03:02,319

practice right so consistency or just

90

00:03:00,560 --> 00:03:05,120

some kind of uniformity or

91

00:03:02,319 --> 00:03:05,760

at least uh you know certain themes here

92

00:03:05,120 --> 00:03:07,920

and there

93

00:03:05,760 --> 00:03:09,840

uh what have you got to say about style

94

00:03:07,920 --> 00:03:10,480

for say making a huge game especially

95

00:03:09,840 --> 00:03:11,920

when

96

00:03:10,480 --> 00:03:13,519

you've got to integrate parts that are

97

00:03:11,920 --> 00:03:15,760

not all of your own right so if you have

98

00:03:13,519 --> 00:03:18,159

to import somebody else's assets

99

00:03:15,760 --> 00:03:19,519

uh how do you sort of amoeba around that

100

00:03:18,159 --> 00:03:21,120

and uh

101

00:03:19,519 --> 00:03:22,319

keep keep on you know keeping it

102

00:03:21,120 --> 00:03:23,840

straight in your head as you plot

103

00:03:22,319 --> 00:03:25,599

through these things

104

00:03:23,840 --> 00:03:27,360

a lot of it's just stuff i've picked up

105

00:03:25,599 --> 00:03:28,959

from cloning old

106

00:03:27,360 --> 00:03:31,519

console games because they did it a

107

00:03:28,959 --> 00:03:34,239

certain way and i found for me

108

00:03:31,519 --> 00:03:35,680

the best ways to try to copy that not

109

00:03:34,239 --> 00:03:38,480

perfectly but close

110

00:03:35,680 --> 00:03:39,920

so like just recently uh richard

111

00:03:38,480 --> 00:03:41,840

mentioned something about why i had

112

00:03:39,920 --> 00:03:43,680

three different layers for my little fox

113

00:03:41,840 --> 00:03:45,200

3d thing i made up

114

00:03:43,680 --> 00:03:46,959

that's just because that's how i do it

115

00:03:45,200 --> 00:03:48,480

that's how i avoid flickr because i

116

00:03:46,959 --> 00:03:49,599

build everything and then i transfer it

117

00:03:48,480 --> 00:03:51,760

to the screen so the screen's not

118

00:03:49,599 --> 00:03:53,760

constantly updating

119

00:03:51,760 --> 00:03:54,879

and why don't i use display that's

120

00:03:53,760 --> 00:03:56,319

because a lot of times i'll have

121

00:03:54,879 --> 00:03:58,799

subroutines that do things

122

00:03:56,319 --> 00:04:01,680

they do it then they don't display

123

00:03:58,799 --> 00:04:04,720

because the display isn't updating auto

124

00:04:01,680 --> 00:04:07,360

when those particular aspects run

125

00:04:04,720 --> 00:04:08,799

so i've developed that kind of style and

126

00:04:07,360 --> 00:04:10,319

even beyond that it just

127

00:04:08,799 --> 00:04:11,680

when you look at code sometimes you can

128

00:04:10,319 --> 00:04:13,120

tell who wrote it even if they didn't

129

00:04:11,680 --> 00:04:14,159

sign it just because the way things are

130

00:04:13,120 --> 00:04:18,320

laid out

131

00:04:14,159 --> 00:04:21,199

very true maybe that's always true

132

00:04:18,320 --> 00:04:22,800

so when it comes to uh a game like we

133

00:04:21,199 --> 00:04:24,639

just take any game where the whole

134

00:04:22,800 --> 00:04:26,160

screen is full of graphics is does that

135

00:04:24,639 --> 00:04:28,080

mean you don't put cls

136

00:04:26,160 --> 00:04:29,520

in your main game loop you can just

137

00:04:28,080 --> 00:04:30,080

always paint the new background and just

138

00:04:29,520 --> 00:04:32,400

go

139

00:04:30,080 --> 00:04:34,160

layer over layer forever um without

140

00:04:32,400 --> 00:04:36,479

display are you clearing the screen

141

00:04:34,160 --> 00:04:38,080

it depends on what i'm doing with the

142

00:04:36,479 --> 00:04:40,320

screen if i've got transparencies

143

00:04:38,080 --> 00:04:42,240

i can't just cls because i don't have to

144

00:04:40,320 --> 00:04:45,120

re-clear color it

145

00:04:42,240 --> 00:04:46,479

so a lot of times i'll have one like a

146

00:04:45,120 --> 00:04:48,479

master background

147

00:04:46,479 --> 00:04:49,840

but it's opaque so when i pop it up

148

00:04:48,479 --> 00:04:52,080

there it erases everything

149

00:04:49,840 --> 00:04:54,560

and then i just you know do all the

150

00:04:52,080 --> 00:04:56,080

transparency layers on top of that

151

00:04:54,560 --> 00:04:58,400

so a lot of times i don't have to use

152

00:04:56,080 --> 00:04:59,840

cls but sometimes i do

153

00:04:58,400 --> 00:05:02,160

yeah it depends really on what the

154

00:04:59,840 --> 00:05:03,919

assets you have uh me and zach we were

155

00:05:02,160 --> 00:05:05,360

chatting on a video on the youtube

156

00:05:03,919 --> 00:05:08,160

channel last week

157

00:05:05,360 --> 00:05:09,120

and we were showing this amazingly

158

00:05:08,160 --> 00:05:12,160

looking game

159

00:05:09,120 --> 00:05:14,080

that a guy on twitter wrote that you

160

00:05:12,160 --> 00:05:16,000

you totally say you could totally say

161

00:05:14,080 --> 00:05:16,560

it's a nintendo super nintendo game

162

00:05:16,000 --> 00:05:19,280

because

163

00:05:16,560 --> 00:05:20,880

he did a really good job he used assets

164

00:05:19,280 --> 00:05:23,600

from another guy

165

00:05:20,880 --> 00:05:24,960

and uh he had this sprite sheet etc he

166

00:05:23,600 --> 00:05:26,479

never used cls

167

00:05:24,960 --> 00:05:28,639

he was just placing the background

168

00:05:26,479 --> 00:05:30,320

because the if you're going to use put

169

00:05:28,639 --> 00:05:31,840

image to clear the background

170

00:05:30,320 --> 00:05:34,160

then you don't need to clear the screen

171

00:05:31,840 --> 00:05:36,160

because that's already clearing it right

172

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

but if your background has any element

173

00:05:36,160 --> 00:05:40,479

of transparency of course you're gonna

174

00:05:38,160 --> 00:05:41,280

need to class at some point but cls is a

175

00:05:40,479 --> 00:05:45,680

pretty

176

00:05:41,280 --> 00:05:48,320

uh memory cheap uh

177

00:05:45,680 --> 00:05:49,280

process because it just writes a bunch

178

00:05:48,320 --> 00:05:51,840

of

179

00:05:49,280 --> 00:05:53,759

zeros to screen so it's not that that a

180

00:05:51,840 --> 00:05:56,080

bad thing

181

00:05:53,759 --> 00:05:57,919

not very costly you can be in your loop

182

00:05:56,080 --> 00:05:59,919

that's what i wanted to say thank you

183

00:05:57,919 --> 00:06:02,319

and uh but of course we're delving a

184

00:05:59,919 --> 00:06:05,600

little bit into technique here but style

185

00:06:02,319 --> 00:06:06,160

also uh infers that you're going to have

186

00:06:05,600 --> 00:06:08,800

this

187

00:06:06,160 --> 00:06:11,039

certain amount of fixed lines for

188

00:06:08,800 --> 00:06:12,080

example when i write any kind of graphic

189

00:06:11,039 --> 00:06:13,440

code

190

00:06:12,080 --> 00:06:16,000

anything that's going to draw to the

191

00:06:13,440 --> 00:06:18,080

string i i don't even think it goes in

192

00:06:16,000 --> 00:06:19,039

automatic mode i start writing my loop

193

00:06:18,080 --> 00:06:21,919

first and then i go

194

00:06:19,039 --> 00:06:23,759

do display limit loop that's the first

195

00:06:21,919 --> 00:06:25,600

thing i always write because i know i'm

196

00:06:23,759 --> 00:06:29,680

gonna have to refresh the screen

197

00:06:25,600 --> 00:06:32,160

update it etc and uh

198

00:06:29,680 --> 00:06:34,000

what goes into style actually goes a

199

00:06:32,160 --> 00:06:37,840

little bit deeper into how you organize

200

00:06:34,000 --> 00:06:40,960

it right how you you place things

201

00:06:37,840 --> 00:06:42,560

for example uh regarding variable names

202

00:06:40,960 --> 00:06:44,319

how you name your variables that's going

203

00:06:42,560 --> 00:06:45,199

to make a big difference in how people

204

00:06:44,319 --> 00:06:47,440

read your code

205

00:06:45,199 --> 00:06:48,240

because you can write this variable does

206

00:06:47,440 --> 00:06:51,440

this

207

00:06:48,240 --> 00:06:53,120

and it it people have to stop and parse

208

00:06:51,440 --> 00:06:55,360

what you wrote if you write it on

209

00:06:53,120 --> 00:06:56,160

capitals for example or all small

210

00:06:55,360 --> 00:06:59,039

letters

211

00:06:56,160 --> 00:07:00,880

and it kind of it's another gesture of

212

00:06:59,039 --> 00:07:01,520

kindness to people who will read your

213

00:07:00,880 --> 00:07:02,800

code

214

00:07:01,520 --> 00:07:04,720

if you make your variables easier to

215

00:07:02,800 --> 00:07:06,880

read how do you guys go about that

216

00:07:04,720 --> 00:07:08,720

that's a lot i see with like a lot of

217

00:07:06,880 --> 00:07:10,319

b-pluses stuff because he writes so much

218

00:07:08,720 --> 00:07:11,280

stuff but he doesn't use descriptive

219

00:07:10,319 --> 00:07:13,759

variables a lot of times

220

00:07:11,280 --> 00:07:16,479

this is just a b c d he's like what the

221

00:07:13,759 --> 00:07:20,000

heck are you doing with these variables

222

00:07:16,479 --> 00:07:21,840

yeah for me if i use like a

223

00:07:20,000 --> 00:07:23,199

a b c it's just going to be some kind of

224

00:07:21,840 --> 00:07:24,560

inconsequential

225

00:07:23,199 --> 00:07:26,800

i'm making a call to some kind of

226

00:07:24,560 --> 00:07:27,440

function i don't care what the result is

227

00:07:26,800 --> 00:07:29,440

i'm just using

228

00:07:27,440 --> 00:07:31,759

that a or whatever to just get the thing

229

00:07:29,440 --> 00:07:33,840

to call it

230

00:07:31,759 --> 00:07:35,599

yeah exactly otherwise it's going to be

231

00:07:33,840 --> 00:07:38,400

some kind of thing that's like

232

00:07:35,599 --> 00:07:39,840

ftp handle or whatever handle that way

233

00:07:38,400 --> 00:07:41,840

she says okay that's what this

234

00:07:39,840 --> 00:07:43,520

actually is it's going to be restoring

235

00:07:41,840 --> 00:07:46,479

storing that functions

236

00:07:43,520 --> 00:07:48,319

call into that variable but yeah i

237

00:07:46,479 --> 00:07:51,280

hardly ever use like a b or c notice

238

00:07:48,319 --> 00:07:53,840

it's some kind of dummy variable

239

00:07:51,280 --> 00:07:54,639

or an iterator when i we're doing four

240

00:07:53,840 --> 00:07:57,120

of those two

241

00:07:54,639 --> 00:07:58,560

that's you don't want a long variable

242

00:07:57,120 --> 00:08:01,840

for that right

243

00:07:58,560 --> 00:08:02,720

for every item in my array that goes

244

00:08:01,840 --> 00:08:05,280

from one to

245

00:08:02,720 --> 00:08:06,319

100 you don't want that right yeah so

246

00:08:05,280 --> 00:08:09,280

yeah that's something

247

00:08:06,319 --> 00:08:10,240

but in the old days and uh the old

248

00:08:09,280 --> 00:08:13,360

school guys

249

00:08:10,240 --> 00:08:14,240

will argue that uh you needed to be

250

00:08:13,360 --> 00:08:17,360

consis

251

00:08:14,240 --> 00:08:19,039

consider concise right concise you need

252

00:08:17,360 --> 00:08:20,479

to be concise you need to write small

253

00:08:19,039 --> 00:08:22,160

variables because that's going to take

254

00:08:20,479 --> 00:08:22,800

up memory and that's going to be blah

255

00:08:22,160 --> 00:08:24,960

blah blah

256

00:08:22,800 --> 00:08:26,160

of course and and you carry that over of

257

00:08:24,960 --> 00:08:29,919

course

258

00:08:26,160 --> 00:08:32,240

it's hard to get rid of bad practices

259

00:08:29,919 --> 00:08:34,159

like that right but they were necessary

260

00:08:32,240 --> 00:08:35,440

yeah even habits i mean you get into the

261

00:08:34,159 --> 00:08:36,560

habit of just doing it you don't think

262

00:08:35,440 --> 00:08:38,560

about it

263

00:08:36,560 --> 00:08:40,320

yeah and sometimes i i understand that

264

00:08:38,560 --> 00:08:41,680

you can sometimes get in the zone and

265

00:08:40,320 --> 00:08:42,880

start writing and you just need a

266

00:08:41,680 --> 00:08:45,600

variable and you

267

00:08:42,880 --> 00:08:46,000

a oh a is already been used and you b

268

00:08:45,600 --> 00:08:49,360

right

269

00:08:46,000 --> 00:08:49,839

you can do that of course if you wanted

270

00:08:49,360 --> 00:08:53,120

to

271

00:08:49,839 --> 00:08:54,160

sorry if you want to uh publish it

272

00:08:53,120 --> 00:08:56,080

eventually they're going to have to go

273

00:08:54,160 --> 00:08:58,640

back and read that and even for you it's

274

00:08:56,080 --> 00:09:01,600

going to be a problem like you said bill

275

00:08:58,640 --> 00:09:03,200

oh um so just one comment about variable

276

00:09:01,600 --> 00:09:05,600

names and their length it's uh

277

00:09:03,200 --> 00:09:07,600

some of this comes from history where

278

00:09:05,600 --> 00:09:09,200

computers used to be huge and nobody

279

00:09:07,600 --> 00:09:10,399

could touch them unless you had a suit

280

00:09:09,200 --> 00:09:11,200

and tie on and you were very high

281

00:09:10,399 --> 00:09:13,519

echelon

282

00:09:11,200 --> 00:09:15,040

mathematician to be completely honest

283

00:09:13,519 --> 00:09:17,279

right they were really for

284

00:09:15,040 --> 00:09:18,480

math departments yeah and um if you look

285

00:09:17,279 --> 00:09:20,640

at any paper

286

00:09:18,480 --> 00:09:22,320

in math how long are variable names it's

287

00:09:20,640 --> 00:09:25,440

always a it's always e

288

00:09:22,320 --> 00:09:26,880

i can't think of any multi-character

289

00:09:25,440 --> 00:09:28,720

variable name that i've really ever

290

00:09:26,880 --> 00:09:29,519

needed of course we cheat we go into the

291

00:09:28,720 --> 00:09:32,959

greek

292

00:09:29,519 --> 00:09:33,920

characters that's right but the point is

293

00:09:32,959 --> 00:09:35,279

all names are short

294

00:09:33,920 --> 00:09:36,640

so of course the first folks using

295

00:09:35,279 --> 00:09:37,760

computers are not going to it's not

296

00:09:36,640 --> 00:09:38,320

going to occur to them to be like you

297

00:09:37,760 --> 00:09:40,480

know

298

00:09:38,320 --> 00:09:41,360

users full address equals they're just

299

00:09:40,480 --> 00:09:44,959

going to say you know

300

00:09:41,360 --> 00:09:45,600

a or whatever uh so yeah we're finally

301

00:09:44,959 --> 00:09:46,880

catching up

302

00:09:45,600 --> 00:09:49,120

we're in the middle point in this

303

00:09:46,880 --> 00:09:50,959

history though because the natural

304

00:09:49,120 --> 00:09:52,880

end state for variable names will

305

00:09:50,959 --> 00:09:54,000

include spaces it's just more natural it

306

00:09:52,880 --> 00:09:56,320

follows natural language

307

00:09:54,000 --> 00:09:57,760

do you think that's ever gonna happen i

308

00:09:56,320 --> 00:10:00,000

hope it doesn't

309

00:09:57,760 --> 00:10:01,760

yeah it's weird isn't it yeah you're

310

00:10:00,000 --> 00:10:03,839

only you guys are proving

311

00:10:01,760 --> 00:10:05,200

my the point that we're we're at a

312

00:10:03,839 --> 00:10:05,839

certain point in history we're rooted

313

00:10:05,200 --> 00:10:08,079

here there are

314

00:10:05,839 --> 00:10:10,160

strong opinions but no if programming

315

00:10:08,079 --> 00:10:12,079

becomes natural language which it will

316

00:10:10,160 --> 00:10:13,600

which will from alpha is doing you know

317

00:10:12,079 --> 00:10:15,519

the whole push

318

00:10:13,600 --> 00:10:17,360

and making languages easy and accessible

319

00:10:15,519 --> 00:10:18,640

is oh this flows off the tongue it looks

320

00:10:17,360 --> 00:10:20,000

intuitive that's exactly what you guys

321

00:10:18,640 --> 00:10:21,440

are just saying right oh it's kind to

322

00:10:20,000 --> 00:10:23,360

have variables that you can read

323

00:10:21,440 --> 00:10:24,880

well the end limit of that is names of

324

00:10:23,360 --> 00:10:27,760

spaces why not

325

00:10:24,880 --> 00:10:29,200

files names have no they didn't used to

326

00:10:27,760 --> 00:10:30,000

you couldn't put the space in a file

327

00:10:29,200 --> 00:10:33,040

name

328

00:10:30,000 --> 00:10:34,000

15 years ago oh yeah absolutely and with

329

00:10:33,040 --> 00:10:35,839

respect to file names

330

00:10:34,000 --> 00:10:37,040

it'll be true for variables um and we

331

00:10:35,839 --> 00:10:38,480

will in maybe

332

00:10:37,040 --> 00:10:39,920

maybe not me maybe i won't survive but

333

00:10:38,480 --> 00:10:41,360

you guys will at least be the old timer

334

00:10:39,920 --> 00:10:42,079

saying get your spaces out of your

335

00:10:41,360 --> 00:10:44,480

variable

336

00:10:42,079 --> 00:10:46,800

yeah but you see i see a difference

337

00:10:44,480 --> 00:10:47,760

between file names which i loved when

338

00:10:46,800 --> 00:10:50,399

they were allowed

339

00:10:47,760 --> 00:10:51,440

to have spaces from variables because

340

00:10:50,399 --> 00:10:53,839

file names they're

341

00:10:51,440 --> 00:10:56,000

contained in a way and variable names

342

00:10:53,839 --> 00:10:58,000

are like scattered around and that would

343

00:10:56,000 --> 00:11:00,240

be a mess

344

00:10:58,000 --> 00:11:01,760

you have a container for file names if

345

00:11:00,240 --> 00:11:03,760

you're if you know if your

346

00:11:01,760 --> 00:11:04,880

tokenizer and parser are you know

347

00:11:03,760 --> 00:11:08,079

general enough they'll

348

00:11:04,880 --> 00:11:08,800

be able to just pick up on it as long as

349

00:11:08,079 --> 00:11:10,959

you don't have

350

00:11:08,800 --> 00:11:12,640

as long as you don't have operators that

351

00:11:10,959 --> 00:11:14,399

are spaces

352

00:11:12,640 --> 00:11:15,760

then what else i mean we don't have to

353

00:11:14,399 --> 00:11:17,600

do language design right here but

354

00:11:15,760 --> 00:11:19,360

i i do think that the end limit of

355

00:11:17,600 --> 00:11:21,120

variable naming will

356

00:11:19,360 --> 00:11:22,959

one day include spaces despite what we

357

00:11:21,120 --> 00:11:25,360

talked about today i guess

358

00:11:22,959 --> 00:11:26,720

maybe if we already supported unicode

359

00:11:25,360 --> 00:11:28,399

and maybe

360

00:11:26,720 --> 00:11:30,800

languages that do support unicode i've

361

00:11:28,399 --> 00:11:34,000

seen some terrible joke codes

362

00:11:30,800 --> 00:11:36,800

in c and java that used emojis

363

00:11:34,000 --> 00:11:37,920

to replace keywords and that was

364

00:11:36,800 --> 00:11:42,000

dreadful

365

00:11:37,920 --> 00:11:42,480

but maybe we can already use alt 255 to

366

00:11:42,000 --> 00:11:44,160

make an

367

00:11:42,480 --> 00:11:45,600

empty character i don't know but that's

368

00:11:44,160 --> 00:11:47,279

not going to be validating could be 64

369

00:11:45,600 --> 00:11:50,399

of course but maybe in some languages

370

00:11:47,279 --> 00:11:52,160

we already can have spaces and to wrap

371

00:11:50,399 --> 00:11:55,040

i have this table here we were looking

372

00:11:52,160 --> 00:11:58,800

before from wikipedia

373

00:11:55,040 --> 00:11:59,279

interesting variable writing techniques

374

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

i mean

375

00:11:59,279 --> 00:12:04,800

naming conventions and uh

376

00:12:02,800 --> 00:12:07,440

which team are you guys on i'm on this

377

00:12:04,800 --> 00:12:07,920

team right here lower camel case i start

378

00:12:07,440 --> 00:12:10,880

with

379

00:12:07,920 --> 00:12:11,680

a small letter and eventually break with

380

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

capitals

381

00:12:11,680 --> 00:12:17,040

between words where do you guys fall

382

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

i'm on pascal in case your upper camel

383

00:12:17,040 --> 00:12:22,639

case

384

00:12:19,200 --> 00:12:25,040

right there yep yeah i do that a lot

385

00:12:22,639 --> 00:12:27,120

unless i'm writing like a function then

386

00:12:25,040 --> 00:12:28,720

i'll add the uh with a snake case in

387

00:12:27,120 --> 00:12:31,760

there too

388

00:12:28,720 --> 00:12:33,360

so yeah underscoring where does

389

00:12:31,760 --> 00:12:34,720

streaming snake case come from

390

00:12:33,360 --> 00:12:37,279

is that named after what it's supposed

391

00:12:34,720 --> 00:12:38,880

to look like like it's been run over

392

00:12:37,279 --> 00:12:40,800

is it like a snake that's been run over

393

00:12:38,880 --> 00:12:43,279

by two tires do you see what i'm saying

394

00:12:40,800 --> 00:12:46,560

i guess it's doing this i guess you know

395

00:12:43,279 --> 00:12:48,880

wow biblically the snake that could

396

00:12:46,560 --> 00:12:50,480

speak was the devil and i agree that he

397

00:12:48,880 --> 00:12:52,639

would come up with something like this

398

00:12:50,480 --> 00:12:54,560

because it looks dreadful of course

399

00:12:52,639 --> 00:12:56,240

we were saying that using all capitals

400

00:12:54,560 --> 00:12:58,639

for constants is a thing

401

00:12:56,240 --> 00:13:01,760

and it's almost a convention an unspoken

402

00:12:58,639 --> 00:13:04,240

convention in basic right

403

00:13:01,760 --> 00:13:06,320

and in when api all their constants are

404

00:13:04,240 --> 00:13:09,600

the exact screaming stake

405

00:13:06,320 --> 00:13:11,600

case are there uh underscores for

406

00:13:09,600 --> 00:13:13,440

windows api constants i never know yes

407

00:13:11,600 --> 00:13:17,040

yes you have uh you have like

408

00:13:13,440 --> 00:13:19,839

ftp underscore attribute underscore

409

00:13:17,040 --> 00:13:20,160

so yeah yeah for some reason the fact

410

00:13:19,839 --> 00:13:22,720

that

411

00:13:20,160 --> 00:13:24,480

underscores are used between words that

412

00:13:22,720 --> 00:13:27,519

kind of doesn't look good to me

413

00:13:24,480 --> 00:13:28,720

although i don't i cannot say we hate i

414

00:13:27,519 --> 00:13:31,200

hate underscores

415

00:13:28,720 --> 00:13:34,000

because cuba 64 is fully based on

416

00:13:31,200 --> 00:13:35,120

underscores for our new keywords but

417

00:13:34,000 --> 00:13:37,120

in the middle of the words it kind of

418

00:13:35,120 --> 00:13:38,720

looks bad to me i think the main reason

419

00:13:37,120 --> 00:13:39,760

why is because since constants are kind

420

00:13:38,720 --> 00:13:41,920

of

421

00:13:39,760 --> 00:13:44,160

the rule about having uppercased if you

422

00:13:41,920 --> 00:13:45,279

had them as the upper flat case uh it'd

423

00:13:44,160 --> 00:13:47,040

be hard to read it

424

00:13:45,279 --> 00:13:49,040

so if you had so yet to having kind of

425

00:13:47,040 --> 00:13:52,079

things separating them out

426

00:13:49,040 --> 00:13:53,199

yeah uh because sometimes words they can

427

00:13:52,079 --> 00:13:55,199

be broken up at

428

00:13:53,199 --> 00:13:56,800

wrong places and you're gonna even have

429

00:13:55,199 --> 00:13:59,040

a bad pun in them

430

00:13:56,800 --> 00:14:00,880

and of course there's these last styles

431

00:13:59,040 --> 00:14:02,079

here in the table and for you guys just

432

00:14:00,880 --> 00:14:03,920

listening to this podcast

433

00:14:02,079 --> 00:14:06,160

and not watching the video i'm talking

434

00:14:03,920 --> 00:14:07,839

about the wikipedia page for naming

435

00:14:06,160 --> 00:14:08,720

convention regarding to programming and

436

00:14:07,839 --> 00:14:11,760

we have this

437

00:14:08,720 --> 00:14:14,800

neat table here uh there's this

438

00:14:11,760 --> 00:14:17,120

with hyphens which are valid in cobol

439

00:14:14,800 --> 00:14:18,000

and lisp i can see here of course we

440

00:14:17,120 --> 00:14:19,600

cannot

441

00:14:18,000 --> 00:14:21,199

use these because they would be

442

00:14:19,600 --> 00:14:25,360

interpreted by qb64

443

00:14:21,199 --> 00:14:28,000

as variable 2 minus variable words

444

00:14:25,360 --> 00:14:28,720

so that's not even an option but of

445

00:14:28,000 --> 00:14:32,000

course

446

00:14:28,720 --> 00:14:33,680

style goes beyond name variable names

447

00:14:32,000 --> 00:14:36,160

there is also like the position of

448

00:14:33,680 --> 00:14:39,279

things how you lay out your code

449

00:14:36,160 --> 00:14:40,959

and uh that also makes it readable or

450

00:14:39,279 --> 00:14:42,720

mysterious depending on how you're

451

00:14:40,959 --> 00:14:45,040

showing your code right whether not yet

452

00:14:42,720 --> 00:14:47,040

alphabetized stuff

453

00:14:45,040 --> 00:14:48,399

do you do you alphabetize stuff like

454

00:14:47,040 --> 00:14:51,440

functions

455

00:14:48,399 --> 00:14:53,440

i start and then i forget by the end so

456

00:14:51,440 --> 00:14:55,440

yeah i guess it becomes time-consuming

457

00:14:53,440 --> 00:14:57,839

to do it i just go to the end

458

00:14:55,440 --> 00:15:00,160

or uh if i don't go to the end of my

459

00:14:57,839 --> 00:15:02,959

file to add a new function or procedure

460

00:15:00,160 --> 00:15:04,880

i usually go to some procedure that has

461

00:15:02,959 --> 00:15:05,519

some similarity or connection to the one

462

00:15:04,880 --> 00:15:07,040

i'm writing

463

00:15:05,519 --> 00:15:09,040

and i added either before or after

464

00:15:07,040 --> 00:15:11,519

because then it's easier to

465

00:15:09,040 --> 00:15:13,279

to locate myself when i'm doing it but i

466

00:15:11,519 --> 00:15:15,120

usually have a layout in my mind when

467

00:15:13,279 --> 00:15:15,519

i'm writing code and i kind of know

468

00:15:15,120 --> 00:15:17,120

where

469

00:15:15,519 --> 00:15:19,199

everything is and i just need to go oh

470

00:15:17,120 --> 00:15:20,959

let me go there and i just

471

00:15:19,199 --> 00:15:23,920

quickly jump there you guys probably

472

00:15:20,959 --> 00:15:27,360

have these mental maps too

473

00:15:23,920 --> 00:15:28,560

absolutely what's

474

00:15:27,360 --> 00:15:30,480

i've never really thought about this

475

00:15:28,560 --> 00:15:33,839

much i guess we i guess i have

476

00:15:30,480 --> 00:15:35,600

some people have too i can tell that um

477

00:15:33,839 --> 00:15:37,440

we're really good at mapping 3d spaces

478

00:15:35,600 --> 00:15:38,320

you know your way around the house and

479

00:15:37,440 --> 00:15:40,399

just you know

480

00:15:38,320 --> 00:15:42,399

around town or whatever um but all the

481

00:15:40,399 --> 00:15:43,839

mapping we do on screen with our code

482

00:15:42,399 --> 00:15:45,920

structure at least is

483

00:15:43,839 --> 00:15:47,680

two-dimensional at best i mean code is

484

00:15:45,920 --> 00:15:49,600

really 1d right because it goes

485

00:15:47,680 --> 00:15:51,199

sequentially strictly but you know we

486

00:15:49,600 --> 00:15:52,000

can at least look at it displayed in two

487

00:15:51,199 --> 00:15:53,920

dimensions

488

00:15:52,000 --> 00:15:55,279

i do wonder how what it would be like

489

00:15:53,920 --> 00:15:55,680

and this doesn't have to be for coding

490

00:15:55,279 --> 00:15:57,839

but

491

00:15:55,680 --> 00:15:59,120

maybe for coding or for just anything

492

00:15:57,839 --> 00:16:00,720

what it would be like to navigate a

493

00:15:59,120 --> 00:16:03,680

system in a 3d view

494

00:16:00,720 --> 00:16:04,240

even your own file system instead of a

495

00:16:03,680 --> 00:16:07,199

tree

496

00:16:04,240 --> 00:16:08,399

of your possessions digitally you walk

497

00:16:07,199 --> 00:16:10,480

down in its corridors

498

00:16:08,399 --> 00:16:12,399

and each one of them is a branching

499

00:16:10,480 --> 00:16:14,079

space

500

00:16:12,399 --> 00:16:16,079

that scene from jurassic park where

501

00:16:14,079 --> 00:16:16,800

she's navigating the security system on

502

00:16:16,079 --> 00:16:18,560

there

503

00:16:16,800 --> 00:16:20,320

i can see that being done with like the

504

00:16:18,560 --> 00:16:22,639

htc vive or something like that or

505

00:16:20,320 --> 00:16:23,600

those little uh vr headsets i can see

506

00:16:22,639 --> 00:16:24,720

them doing that

507

00:16:23,600 --> 00:16:26,959

i'll tell you what that would be it

508

00:16:24,720 --> 00:16:30,000

would be the matrix my friend

509

00:16:26,959 --> 00:16:32,800

right yeah uh yeah kinda it would um

510

00:16:30,000 --> 00:16:33,519

it kind of is uh so this is what is it's

511

00:16:32,800 --> 00:16:35,839

been done

512

00:16:33,519 --> 00:16:36,560

not strictly in a vr kind of setting but

513

00:16:35,839 --> 00:16:39,040

i've seen

514

00:16:36,560 --> 00:16:40,320

um desktop views where you know if you

515

00:16:39,040 --> 00:16:41,360

approach a computer it's a very flat

516

00:16:40,320 --> 00:16:43,440

desktop it's

517

00:16:41,360 --> 00:16:44,720

basic it's a glorified desk blogger with

518

00:16:43,440 --> 00:16:45,600

a calendar on it and stuff like that

519

00:16:44,720 --> 00:16:47,680

very flat

520

00:16:45,600 --> 00:16:49,120

very intended to be flat even even if

521

00:16:47,680 --> 00:16:50,240

windows have shadows it's you're

522

00:16:49,120 --> 00:16:52,480

imagining it that's

523

00:16:50,240 --> 00:16:53,680

barely an inch thick you know um but

524

00:16:52,480 --> 00:16:54,560

there are certain displays and they're

525

00:16:53,680 --> 00:16:56,079

very convincing

526

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

if you've got a really good powerful

527

00:16:56,079 --> 00:16:58,560

screen where instead of pulling up a

528

00:16:58,160 --> 00:17:01,040

flat

529

00:16:58,560 --> 00:17:01,759

file and holding a flat page paste it on

530

00:17:01,040 --> 00:17:03,680

your monitor

531

00:17:01,759 --> 00:17:05,039

it shows you the face of a cube and it

532

00:17:03,680 --> 00:17:06,480

sort of zooms into that and you sort of

533

00:17:05,039 --> 00:17:07,919

know the back of your head like oh

534

00:17:06,480 --> 00:17:09,839

if i turn the cube around i have a

535

00:17:07,919 --> 00:17:10,959

different file there if i turn the cube

536

00:17:09,839 --> 00:17:11,520

on the bottom i got a different thing

537

00:17:10,959 --> 00:17:12,799

there

538

00:17:11,520 --> 00:17:14,400

rather than tabbing through your

539

00:17:12,799 --> 00:17:16,319

workspaces like all this one's that

540

00:17:14,400 --> 00:17:17,199

desktop one desktop two which one was

541

00:17:16,319 --> 00:17:19,280

filezilla on

542

00:17:17,199 --> 00:17:20,720

which one is my terminals all on it's

543

00:17:19,280 --> 00:17:22,559

faces of this cube and you have a

544

00:17:20,720 --> 00:17:24,400

much better intuition for where things

545

00:17:22,559 --> 00:17:26,240

are just spatially just

546

00:17:24,400 --> 00:17:28,880

use the third dimension to our advantage

547

00:17:26,240 --> 00:17:33,840

as 3d creatures who live in 3d

548

00:17:28,880 --> 00:17:33,840

uh anyway it's a whole separate podcast

549

00:17:34,240 --> 00:17:38,000

true well well speaking about the

550

00:17:37,360 --> 00:17:41,039

mapping

551

00:17:38,000 --> 00:17:43,120

and looking at it yeah i totally know my

552

00:17:41,039 --> 00:17:45,200

around my own code of course because i

553

00:17:43,120 --> 00:17:49,440

know i wrote it

554

00:17:45,200 --> 00:17:50,480

but even this is kind of an unspoken

555

00:17:49,440 --> 00:17:53,440

rule too

556

00:17:50,480 --> 00:17:54,559

i for example start my code with option

557

00:17:53,440 --> 00:17:56,400

explicit whenever

558

00:17:54,559 --> 00:17:57,600

it's something i take seriously and i

559

00:17:56,400 --> 00:18:00,160

want to

560

00:17:57,600 --> 00:18:01,120

to make it public otherwise i just go

561

00:18:00,160 --> 00:18:02,880

with the flow

562

00:18:01,120 --> 00:18:04,559

but even when i go with the flow for my

563

00:18:02,880 --> 00:18:07,440

own purposes

564

00:18:04,559 --> 00:18:08,080

i tend to go the option explicit rule

565

00:18:07,440 --> 00:18:11,200

they do

566

00:18:08,080 --> 00:18:12,880

me too and then i usually come up with

567

00:18:11,200 --> 00:18:14,480

i don't know what comes first i think i

568

00:18:12,880 --> 00:18:16,960

come with types first

569

00:18:14,480 --> 00:18:17,679

if i have custom types and then

570

00:18:16,960 --> 00:18:20,880

constants

571

00:18:17,679 --> 00:18:21,919

and then variables how do you guys

572

00:18:20,880 --> 00:18:23,679

usually go about it

573

00:18:21,919 --> 00:18:25,120

it really doesn't make a difference for

574

00:18:23,679 --> 00:18:28,320

the compiler but

575

00:18:25,120 --> 00:18:31,440

it's similar to yours i typically do

576

00:18:28,320 --> 00:18:35,039

uh option explicit my constants

577

00:18:31,440 --> 00:18:36,880

any types i have any variables i have

578

00:18:35,039 --> 00:18:38,480

no no no i'm sorry uh any clearers i

579

00:18:36,880 --> 00:18:39,120

have like just heard you know library or

580

00:18:38,480 --> 00:18:43,840

whatever

581

00:18:39,120 --> 00:18:43,840

and then variables in the main code

582

00:18:44,960 --> 00:18:49,600

okay with um uh so nobody's mentioned

583

00:18:48,080 --> 00:18:51,440

includes yet so where would you stick

584

00:18:49,600 --> 00:18:51,840

your pound includes so i guess there's

585

00:18:51,440 --> 00:18:53,280

really

586

00:18:51,840 --> 00:18:55,440

two themes to that it depends on what

587

00:18:53,280 --> 00:18:57,760

they contain right so the easy one is

588

00:18:55,440 --> 00:18:59,360

the easy ones are bm file if if if the

589

00:18:57,760 --> 00:19:00,000

rule is sub functions all go to the

590

00:18:59,360 --> 00:19:01,280

bottom

591

00:19:00,000 --> 00:19:03,600

then attack that onto the bottom but

592

00:19:01,280 --> 00:19:06,880

what does your bi file usually have

593

00:19:03,600 --> 00:19:08,880

uh code per se or just values

594

00:19:06,880 --> 00:19:10,400

constants and stuff there's no one

595

00:19:08,880 --> 00:19:12,799

answer to this right so there might not

596

00:19:10,400 --> 00:19:14,320

you know this might be purely

597

00:19:12,799 --> 00:19:16,559

hypothetical rhetorical

598

00:19:14,320 --> 00:19:17,440

but maybe whatever's in your include

599

00:19:16,559 --> 00:19:19,919

file

600

00:19:17,440 --> 00:19:21,520

especially the dot vi should maybe not

601

00:19:19,919 --> 00:19:22,400

strictly go up the top but go in the

602

00:19:21,520 --> 00:19:24,000

group

603

00:19:22,400 --> 00:19:25,760

that or the sections that you guys are

604

00:19:24,000 --> 00:19:27,280

sort of mentioning dare i say take a

605

00:19:25,760 --> 00:19:29,280

page out of cobalt

606

00:19:27,280 --> 00:19:30,960

uh that language is a book where you

607

00:19:29,280 --> 00:19:34,080

need these definite sections

608

00:19:30,960 --> 00:19:35,440

um but maybe that was a good idea uh if

609

00:19:34,080 --> 00:19:36,000

you've got an included file for just

610

00:19:35,440 --> 00:19:38,080

colors

611

00:19:36,000 --> 00:19:39,679

for instance does that belong at the

612

00:19:38,080 --> 00:19:41,520

tippity top of the program

613

00:19:39,679 --> 00:19:44,000

or way down where you do all your other

614

00:19:41,520 --> 00:19:45,600

constants just so it's your thought

615

00:19:44,000 --> 00:19:47,360

yeah i guess it also depends on the

616

00:19:45,600 --> 00:19:49,600

contents because if you're gonna have a

617

00:19:47,360 --> 00:19:52,000

file with definitions or types or

618

00:19:49,600 --> 00:19:52,880

constants it should be at the top with

619

00:19:52,000 --> 00:19:54,559

the rest of it

620

00:19:52,880 --> 00:19:56,080

but you know even it's interesting that

621

00:19:54,559 --> 00:19:59,400

you mentioned the types of

622

00:19:56,080 --> 00:20:00,559

includes even the extensions are an

623

00:19:59,400 --> 00:20:03,120

undefined

624

00:20:00,559 --> 00:20:04,400

convention because i mean your files

625

00:20:03,120 --> 00:20:07,280

don't have to be named

626

00:20:04,400 --> 00:20:08,159

bi and dot b m but by convention they

627

00:20:07,280 --> 00:20:11,520

usually are

628

00:20:08,159 --> 00:20:15,039

right i i understand them as basic

629

00:20:11,520 --> 00:20:18,080

uh modules for bm but what's b

630

00:20:15,039 --> 00:20:19,280

i for you guys i don't know question i

631

00:20:18,080 --> 00:20:22,400

don't that is either

632

00:20:19,280 --> 00:20:24,960

basically include that's yeah but then

633

00:20:22,400 --> 00:20:25,520

bms are also basic include so basic

634

00:20:24,960 --> 00:20:28,000

module

635

00:20:25,520 --> 00:20:28,559

you just said bm basic module bi basic

636

00:20:28,000 --> 00:20:30,640

include

637

00:20:28,559 --> 00:20:31,919

yeah but your modules are includes too

638

00:20:30,640 --> 00:20:36,080

that's what i mean

639

00:20:31,919 --> 00:20:38,320

no just just for basically

640

00:20:36,080 --> 00:20:39,760

you never thought of it i caught you you

641

00:20:38,320 --> 00:20:41,520

never thought of it either

642

00:20:39,760 --> 00:20:44,000

because it doesn't make sense right but

643

00:20:41,520 --> 00:20:45,280

we also are kind of a costume when i

644

00:20:44,000 --> 00:20:47,919

started inform

645

00:20:45,280 --> 00:20:48,559

i i was like we don't need that so i

646

00:20:47,919 --> 00:20:52,240

named them

647

00:20:48,559 --> 00:20:56,159

ui theme my files extensions are longer

648

00:20:52,240 --> 00:20:57,440

and then uh ui just ui because it was

649

00:20:56,159 --> 00:21:00,559

neat and i wanted to

650

00:20:57,440 --> 00:21:03,360

and i could so i tend i

651

00:21:00,559 --> 00:21:04,960

tend not to like libraries we already

652

00:21:03,360 --> 00:21:08,320

mentioned this before that

653

00:21:04,960 --> 00:21:11,600

we basic programmers are not very

654

00:21:08,320 --> 00:21:14,000

uh programmed mentally to use other

655

00:21:11,600 --> 00:21:16,480

people's codes to include them to

656

00:21:14,000 --> 00:21:17,360

to make integrate them into our projects

657

00:21:16,480 --> 00:21:18,720

and

658

00:21:17,360 --> 00:21:20,559

one of the things i don't like about

659

00:21:18,720 --> 00:21:23,760

libraries in general for basic

660

00:21:20,559 --> 00:21:25,200

is the bibm approach with two files i

661

00:21:23,760 --> 00:21:28,880

kind of

662

00:21:25,200 --> 00:21:28,880

feel it's too much to share

663

00:21:29,039 --> 00:21:32,159

that that reminds you i think rose i

664

00:21:31,120 --> 00:21:33,440

think uh one of the

665

00:21:32,159 --> 00:21:35,600

things rose sigmoid what what what

666

00:21:33,440 --> 00:21:38,559

libraries i had it was um

667

00:21:35,600 --> 00:21:39,919

they had a lot of external libraries and

668

00:21:38,559 --> 00:21:42,080

so the declares were put

669

00:21:39,919 --> 00:21:43,440

in the bi and the functions were put in

670

00:21:42,080 --> 00:21:45,440

the bm but the

671

00:21:43,440 --> 00:21:46,640

but the bi could be in the bm because

672

00:21:45,440 --> 00:21:49,440

all it was declares

673

00:21:46,640 --> 00:21:50,480

and they have to be put to the program

674

00:21:49,440 --> 00:21:52,799

so i had actually

675

00:21:50,480 --> 00:21:54,080

actually went through myself and i

676

00:21:52,799 --> 00:21:56,000

copied all those and put them into the

677

00:21:54,080 --> 00:21:58,559

bm file and used it that way because

678

00:21:56,000 --> 00:22:00,000

having two files to include was a little

679

00:21:58,559 --> 00:22:02,000

annoying sometimes

680

00:22:00,000 --> 00:22:03,600

yeah i mean you can forget you can

681

00:22:02,000 --> 00:22:07,200

misplace

682

00:22:03,600 --> 00:22:10,240

and i've tried to write uh libraries

683

00:22:07,200 --> 00:22:12,799

that either don't require the bi

684

00:22:10,240 --> 00:22:13,360

or can have the the what would be in the

685

00:22:12,799 --> 00:22:15,360

bi

686

00:22:13,360 --> 00:22:16,799

in the bm so that for example if you

687

00:22:15,360 --> 00:22:18,480

want to include

688

00:22:16,799 --> 00:22:20,240

one of my libraries into your program

689

00:22:18,480 --> 00:22:23,280

you're going to have to include the bm

690

00:22:20,240 --> 00:22:23,919

the modules because for example if you

691

00:22:23,280 --> 00:22:27,520

include

692

00:22:23,919 --> 00:22:30,559

the modules before your own subs

693

00:22:27,520 --> 00:22:31,039

your own subs and functions your bm can

694

00:22:30,559 --> 00:22:33,360

have

695

00:22:31,039 --> 00:22:34,720

definitions and modules because it's

696

00:22:33,360 --> 00:22:37,200

going to be

697

00:22:34,720 --> 00:22:39,280

between your main module and your sub so

698

00:22:37,200 --> 00:22:41,760

that's a pro an approach too

699

00:22:39,280 --> 00:22:42,880

but if you want to have a module with

700

00:22:41,760 --> 00:22:44,799

only uh

701

00:22:42,880 --> 00:22:47,679

sub procedures and functions it has to

702

00:22:44,799 --> 00:22:50,799

be at the end sometimes because

703

00:22:47,679 --> 00:22:52,159

of organization and i just try not to

704

00:22:50,799 --> 00:22:54,960

but that's also personal

705

00:22:52,159 --> 00:22:56,400

i just don't like too many includes for

706

00:22:54,960 --> 00:22:57,840

one library but sometimes it's

707

00:22:56,400 --> 00:23:00,960

impossible

708

00:22:57,840 --> 00:23:04,559

yeah i've written one library

709

00:23:00,960 --> 00:23:06,159

for ine files i and i uh

710

00:23:04,559 --> 00:23:08,880

my portuguese mixing with my english

711

00:23:06,159 --> 00:23:10,720

right now uh initialization files

712

00:23:08,880 --> 00:23:12,000

information files whatever you call them

713

00:23:10,720 --> 00:23:15,200

ini

714

00:23:12,000 --> 00:23:15,760

and that library has two files a bi and

715

00:23:15,200 --> 00:23:18,960

a bm

716

00:23:15,760 --> 00:23:21,520

but the bi is completely uh unrequired

717

00:23:18,960 --> 00:23:22,559

i've only written it for people who like

718

00:23:21,520 --> 00:23:24,640

me

719

00:23:22,559 --> 00:23:26,080

use option explicit because then you

720

00:23:24,640 --> 00:23:28,400

need the declarations but

721

00:23:26,080 --> 00:23:29,600

i've written in a way that the modules

722

00:23:28,400 --> 00:23:32,000

use uh

723

00:23:29,600 --> 00:23:33,440

the shared keyword that's a very

724

00:23:32,000 --> 00:23:35,919

important usage too

725

00:23:33,440 --> 00:23:38,559

i remember some of the users of the

726

00:23:35,919 --> 00:23:41,600

language of cuba 64 having a beef

727

00:23:38,559 --> 00:23:44,159

with option explicit exactly because

728

00:23:41,600 --> 00:23:46,480

it would forbid you from using the

729

00:23:44,159 --> 00:23:49,440

shared keyword not dim shared

730

00:23:46,480 --> 00:23:50,720

but shared inside modules because that

731

00:23:49,440 --> 00:23:52,559

allows you to access

732

00:23:50,720 --> 00:23:54,080

variables from the module and with

733

00:23:52,559 --> 00:23:57,360

option explicit that's not a

734

00:23:54,080 --> 00:23:59,039

case but still i didn't know that

735

00:23:57,360 --> 00:24:01,120

you didn't know that i didn't know that

736

00:23:59,039 --> 00:24:03,679

no yeah it's pretty useful

737

00:24:01,120 --> 00:24:05,120

i never really use the shared keyword in

738

00:24:03,679 --> 00:24:07,760

the modules i'll

739

00:24:05,120 --> 00:24:09,200

i'll i'll dim a shared variable at the

740

00:24:07,760 --> 00:24:10,960

beginning i'll just access it

741

00:24:09,200 --> 00:24:12,480

by setting it in the module and do it

742

00:24:10,960 --> 00:24:14,559

that way

743

00:24:12,480 --> 00:24:17,679

yeah technically you kind of could

744

00:24:14,559 --> 00:24:18,799

consider shared to be a declaration of a

745

00:24:17,679 --> 00:24:21,440

variable

746

00:24:18,799 --> 00:24:23,279

because it's their shared x for example

747

00:24:21,440 --> 00:24:25,200

shared x as long

748

00:24:23,279 --> 00:24:27,039

if you put that line in a in a sub

749

00:24:25,200 --> 00:24:29,440

procedure or in a function

750

00:24:27,039 --> 00:24:31,039

you are instructing qbc4 to create that

751

00:24:29,440 --> 00:24:34,400

variable at the module

752

00:24:31,039 --> 00:24:35,760

but when i implemented option explicit

753

00:24:34,400 --> 00:24:39,600

into qb64 i

754

00:24:35,760 --> 00:24:41,039

felt that if i'm invoking this variable

755

00:24:39,600 --> 00:24:42,240

as a shared variable

756

00:24:41,039 --> 00:24:44,240

it's because it has already been

757

00:24:42,240 --> 00:24:46,720

declared i'm not declaring it it's

758

00:24:44,240 --> 00:24:47,279

unlike static for example the static

759

00:24:46,720 --> 00:24:50,080

keyword

760

00:24:47,279 --> 00:24:51,120

is declaring a variable exclusive to

761

00:24:50,080 --> 00:24:54,240

that module so

762

00:24:51,120 --> 00:24:55,760

it kind of felt like it was not the case

763

00:24:54,240 --> 00:24:57,840

and i think visual basic doesn't allow

764

00:24:55,760 --> 00:25:02,080

that too so i went with that

765

00:24:57,840 --> 00:25:06,080

uh as a definition guide i don't know

766

00:25:02,080 --> 00:25:09,120

yeah the shared option i i never use it

767

00:25:06,080 --> 00:25:12,320

uh because it seems to me that it's

768

00:25:09,120 --> 00:25:14,000

it it invites spaghetti code it's

769

00:25:12,320 --> 00:25:15,679

sticking globals in the middle of your

770

00:25:14,000 --> 00:25:17,039

code suddenly like where'd this

771

00:25:15,679 --> 00:25:18,320

where'd this big shared thing come from

772

00:25:17,039 --> 00:25:19,600

i don't see that up top with all the

773

00:25:18,320 --> 00:25:22,400

constant stuff

774

00:25:19,600 --> 00:25:23,279

uh i think option explicit is a savior

775

00:25:22,400 --> 00:25:24,559

in that way

776

00:25:23,279 --> 00:25:26,400

i guess before we leave the top of the

777

00:25:24,559 --> 00:25:28,159

program um i guess my

778

00:25:26,400 --> 00:25:29,600

style of option explicit has evolved

779

00:25:28,159 --> 00:25:30,640

within the past few episodes i got a

780

00:25:29,600 --> 00:25:33,679

better answer

781

00:25:30,640 --> 00:25:36,000

for when i finally turn it on um

782

00:25:33,679 --> 00:25:38,159

i should have said this before the

783

00:25:36,000 --> 00:25:38,720

script language project taught me this

784

00:25:38,159 --> 00:25:40,720

where

785

00:25:38,720 --> 00:25:42,080

if i am extremely careful in my coding

786

00:25:40,720 --> 00:25:44,640

that i i can leave

787

00:25:42,080 --> 00:25:46,159

option explicit off because everybody

788

00:25:44,640 --> 00:25:47,200

knows you know who wants to have it at

789

00:25:46,159 --> 00:25:49,039

the top and then oh

790

00:25:47,200 --> 00:25:50,400

man i want to quickly make a dummy

791

00:25:49,039 --> 00:25:52,159

variable here but oh crap

792

00:25:50,400 --> 00:25:53,520

gotta scroll up and define the things i

793

00:25:52,159 --> 00:25:55,120

don't want dims everywhere

794

00:25:53,520 --> 00:25:56,799

uh so what the heck when i'm pro

795

00:25:55,120 --> 00:25:58,400

prototyping i just have it off but i try

796

00:25:56,799 --> 00:26:00,080

to be careful anyway

797

00:25:58,400 --> 00:26:01,600

that is my final test i say all right

798

00:26:00,080 --> 00:26:02,720

how much was i really paying attention

799

00:26:01,600 --> 00:26:03,919

when i think i'm done

800

00:26:02,720 --> 00:26:05,840

i go to the top and write option

801

00:26:03,919 --> 00:26:08,240

explicit and just see what happens

802

00:26:05,840 --> 00:26:09,760

and if it's nothing then i'm good in

803

00:26:08,240 --> 00:26:11,200

fact i thought that keyword

804

00:26:09,760 --> 00:26:12,960

wasn't really useful for much because

805

00:26:11,200 --> 00:26:14,960

when i first put it into the script

806

00:26:12,960 --> 00:26:16,159

prop code it was already prepped for

807

00:26:14,960 --> 00:26:17,919

that and i said what's the big deal of

808

00:26:16,159 --> 00:26:21,360

this it didn't make it fast or anything

809

00:26:17,919 --> 00:26:22,640

i uh yeah it's a set of training wheels

810

00:26:21,360 --> 00:26:23,919

or i guess if you're

811

00:26:22,640 --> 00:26:26,000

if you're careful enough you don't need

812

00:26:23,919 --> 00:26:29,200

it but you should just put it last

813

00:26:26,000 --> 00:26:31,279

anyway or at first if you must

814

00:26:29,200 --> 00:26:34,000

yeah i usually go with putting it first

815

00:26:31,279 --> 00:26:36,960

just for safety for my own

816

00:26:34,000 --> 00:26:38,000

uh peace of mind actually but yeah i

817

00:26:36,960 --> 00:26:41,440

remember that

818

00:26:38,000 --> 00:26:43,360

uh when you uh the stripped

819

00:26:41,440 --> 00:26:45,360

project did you say scripts are not

820

00:26:43,360 --> 00:26:48,240

tripped this is betrayal man this is

821

00:26:45,360 --> 00:26:48,799

not real okay so i'll clear that up so

822

00:26:48,240 --> 00:26:50,080

it's

823

00:26:48,799 --> 00:26:52,320

spell so people might not even know

824

00:26:50,080 --> 00:26:53,440

about this anymore i'll i'll show it on

825

00:26:52,320 --> 00:26:56,640

the forums or something

826

00:26:53,440 --> 00:26:58,559

it's spelled s-x-r-i-p-t

827

00:26:56,640 --> 00:27:00,080

i just say the word script because why

828

00:26:58,559 --> 00:27:03,520

not it's easy

829

00:27:00,080 --> 00:27:05,760

the the stranger pronunciation came from

830

00:27:03,520 --> 00:27:06,880

a student i had from india one time i

831

00:27:05,760 --> 00:27:08,080

didn't know how to pronounce it so i

832

00:27:06,880 --> 00:27:09,520

wrote it on the board

833

00:27:08,080 --> 00:27:11,200

and this guy just stares at it for a

834

00:27:09,520 --> 00:27:13,360

minute and he

835

00:27:11,200 --> 00:27:15,520

rolled the door he rolled his r2 he just

836

00:27:13,360 --> 00:27:18,320

goes shrekt

837

00:27:15,520 --> 00:27:19,600

and i said that's amazing i'm gonna tell

838

00:27:18,320 --> 00:27:20,720

people that's how it's called but it's

839

00:27:19,600 --> 00:27:22,960

no it's not really true

840

00:27:20,720 --> 00:27:23,760

you know you just say the easy word in

841

00:27:22,960 --> 00:27:27,679

conversation

842

00:27:23,760 --> 00:27:30,720

you had me fooled up until november 29th

843

00:27:27,679 --> 00:27:32,880

2020. thank you sir but anyway uh

844

00:27:30,720 --> 00:27:34,559

i think that it what made it so easy for

845

00:27:32,880 --> 00:27:36,880

you to add options

846

00:27:34,559 --> 00:27:39,039

explicit to it it's because you had to

847

00:27:36,880 --> 00:27:41,440

do it because of the conversions right

848

00:27:39,039 --> 00:27:43,440

between basic javascript what what other

849

00:27:41,440 --> 00:27:46,159

language does it go to

850

00:27:43,440 --> 00:27:48,320

c plus plus three plus class yeah so

851

00:27:46,159 --> 00:27:49,679

anything that basically looks c like

852

00:27:48,320 --> 00:27:51,200

anything c family right

853

00:27:49,679 --> 00:27:52,960

i i've been kicking myself i should make

854

00:27:51,200 --> 00:27:55,440

a java implementation of this too

855

00:27:52,960 --> 00:27:56,480

so i guess yeah without you know beating

856

00:27:55,440 --> 00:27:58,159

that project

857

00:27:56,480 --> 00:28:00,399

because it's so out of context i should

858

00:27:58,159 --> 00:28:02,159

never ever said it but here's what the

859

00:28:00,399 --> 00:28:03,679

takeaway from this if people get used to

860

00:28:02,159 --> 00:28:05,679

coding with option explicit

861

00:28:03,679 --> 00:28:07,200

all the time you're that much better

862

00:28:05,679 --> 00:28:10,240

you're that much more ready for

863

00:28:07,200 --> 00:28:12,159

things like c family javascript

864

00:28:10,240 --> 00:28:14,000

plus whatever where it's mandatory you

865

00:28:12,159 --> 00:28:14,480

can't just toss in a variable there and

866

00:28:14,000 --> 00:28:16,320

be

867

00:28:14,480 --> 00:28:17,919

and the compiler will be happy to use it

868

00:28:16,320 --> 00:28:21,039

you have to declare it

869

00:28:17,919 --> 00:28:23,520

another that brings me to another style

870

00:28:21,039 --> 00:28:24,080

approach regarding to coding when you

871

00:28:23,520 --> 00:28:26,320

guys

872

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

dm your variables how do you group them

873

00:28:26,320 --> 00:28:30,960

i tend to

874

00:28:28,080 --> 00:28:31,679

make a mess in my project until it comes

875

00:28:30,960 --> 00:28:33,520

time to

876

00:28:31,679 --> 00:28:34,799

publish it and then i try to organize

877

00:28:33,520 --> 00:28:37,840

them by

878

00:28:34,799 --> 00:28:39,279

category like mouse uh variables like

879

00:28:37,840 --> 00:28:42,080

i'm going to have a variable to hold

880

00:28:39,279 --> 00:28:43,200

mouse x position mouse button etc i tend

881

00:28:42,080 --> 00:28:45,120

to group them

882

00:28:43,200 --> 00:28:47,279

in a single line if i can like dim

883

00:28:45,120 --> 00:28:50,480

shared this this this is this

884

00:28:47,279 --> 00:28:53,120

or if it goes beyond the

885

00:28:50,480 --> 00:28:54,799

acceptable length of a line i tend to

886

00:28:53,120 --> 00:28:59,120

bring it to more lines but

887

00:28:54,799 --> 00:29:01,919

how do you guys go about it

888

00:28:59,120 --> 00:29:04,000

well i know uh for me uh if i'm doing

889

00:29:01,919 --> 00:29:06,799

like the main body code

890

00:29:04,000 --> 00:29:07,760

i'll dim a variable use it demo variable

891

00:29:06,799 --> 00:29:11,039

use it

892

00:29:07,760 --> 00:29:12,399

but if i'm doing functions i dim all of

893

00:29:11,039 --> 00:29:14,880

them that i can

894

00:29:12,399 --> 00:29:16,880

at the very top of the function and then

895

00:29:14,880 --> 00:29:19,919

if i need a dummy variable like

896

00:29:16,880 --> 00:29:21,120

a equals whatever i'll dim it then but

897

00:29:19,919 --> 00:29:22,000

most part though anything i'm going to

898

00:29:21,120 --> 00:29:24,320

use

899

00:29:22,000 --> 00:29:25,279

like if i'm going to use this handle or

900

00:29:24,320 --> 00:29:26,320

you know this whatever

901

00:29:25,279 --> 00:29:28,000

it's all going to be at the very top of

902

00:29:26,320 --> 00:29:29,200

that function and then i'll use it later

903

00:29:28,000 --> 00:29:30,640

on

904

00:29:29,200 --> 00:29:32,320

and i don't i don't like to do it in

905

00:29:30,640 --> 00:29:34,480

while one line either

906

00:29:32,320 --> 00:29:40,960

i hate doing all of one line so i have

907

00:29:34,480 --> 00:29:43,279

to do dim edge jim as dim as a mask

908

00:29:40,960 --> 00:29:44,720

yeah this is um this is this is hard to

909

00:29:43,279 --> 00:29:46,000

talk about just a little bit

910

00:29:44,720 --> 00:29:48,080

it's hard for me to talk about a little

911

00:29:46,000 --> 00:29:49,360

bit of anything but this in particular

912

00:29:48,080 --> 00:29:51,919

is hard to talk about a little bit

913

00:29:49,360 --> 00:29:54,559

because it gets into

914

00:29:51,919 --> 00:29:56,080

the the paradigm i guess style of

915

00:29:54,559 --> 00:29:58,799

functional programming

916

00:29:56,080 --> 00:29:59,360

if i treat everything that i try to do

917

00:29:58,799 --> 00:30:01,520

as

918

00:29:59,360 --> 00:30:03,360

a very very small task as a function if

919

00:30:01,520 --> 00:30:05,679

i make a function for everything

920

00:30:03,360 --> 00:30:07,120

and if i'm pure to that then i never

921

00:30:05,679 --> 00:30:09,039

really have too many dim statements in

922

00:30:07,120 --> 00:30:11,279

the same place

923

00:30:09,039 --> 00:30:12,559

and what i mean the trade-off is you

924

00:30:11,279 --> 00:30:15,840

have a whole lot of functions with

925

00:30:12,559 --> 00:30:17,919

one dim or a several per um

926

00:30:15,840 --> 00:30:19,039

but this i guess just came from years of

927

00:30:17,919 --> 00:30:22,159

becoming a

928

00:30:19,039 --> 00:30:23,679

settingly severe pedant um i don't know

929

00:30:22,159 --> 00:30:27,200

why i really do this

930

00:30:23,679 --> 00:30:28,640

um but i tried to have nearly everything

931

00:30:27,200 --> 00:30:31,760

be a dummy variable

932

00:30:28,640 --> 00:30:33,360

um including

933

00:30:31,760 --> 00:30:35,120

just not even having the variable at all

934

00:30:33,360 --> 00:30:36,000

if i can have a function do it if i can

935

00:30:35,120 --> 00:30:38,480

have a function take

936

00:30:36,000 --> 00:30:39,840

something and churn out an answer and if

937

00:30:38,480 --> 00:30:41,360

it's really really quick enough maybe

938

00:30:39,840 --> 00:30:43,360

it's not even worth storing that

939

00:30:41,360 --> 00:30:45,360

in a variable you can pay for that with

940

00:30:43,360 --> 00:30:47,279

speed sometimes but uh

941

00:30:45,360 --> 00:30:48,799

there's there's a flexibility there that

942

00:30:47,279 --> 00:30:50,320

that i've learned how to gain it doesn't

943

00:30:48,799 --> 00:30:53,520

apply to every single project

944

00:30:50,320 --> 00:30:54,799

but um and i don't know maybe if we

945

00:30:53,520 --> 00:30:56,960

if we came more prepared for this we

946

00:30:54,799 --> 00:30:58,159

could show the audience what we're

947

00:30:56,960 --> 00:30:59,760

actually talking about

948

00:30:58,159 --> 00:31:01,279

uh i could i could show examples of

949

00:30:59,760 --> 00:31:02,640

where this is hey this is way too many

950

00:31:01,279 --> 00:31:04,640

functions but then i'll say oh look i

951

00:31:02,640 --> 00:31:06,480

can do this with it and you'll say oh

952

00:31:04,640 --> 00:31:08,399

yeah you know storing it variable wise

953

00:31:06,480 --> 00:31:10,320

you know wouldn't have been as cool

954

00:31:08,399 --> 00:31:11,840

i apologize for not being as explicit

955

00:31:10,320 --> 00:31:13,120

that way i guess i'm just

956

00:31:11,840 --> 00:31:15,519

alluding to the fact that there is a

957

00:31:13,120 --> 00:31:17,360

purist version of all this that

958

00:31:15,519 --> 00:31:19,120

says make everything a function and if

959

00:31:17,360 --> 00:31:22,159

you can make everything function of one

960

00:31:19,120 --> 00:31:23,519

argument too um super pure you wouldn't

961

00:31:22,159 --> 00:31:26,480

want to do that

962

00:31:23,519 --> 00:31:27,919

uh to make any real software it becomes

963

00:31:26,480 --> 00:31:29,039

borderline academic that's why i said

964

00:31:27,919 --> 00:31:30,559

it's hard to talk about this just a

965

00:31:29,039 --> 00:31:32,480

little bit

966

00:31:30,559 --> 00:31:34,480

but what's the main point i try to make

967

00:31:32,480 --> 00:31:36,720

everything a dummy variable

968

00:31:34,480 --> 00:31:38,159

and the main export of the function is

969

00:31:36,720 --> 00:31:38,640

really all that matters to that whole

970

00:31:38,159 --> 00:31:40,320

thing

971

00:31:38,640 --> 00:31:43,519

if you have enough small ones it's like

972

00:31:40,320 --> 00:31:43,519

building with legos i guess

973

00:31:43,760 --> 00:31:48,640

for em form i have some variables

974

00:31:46,880 --> 00:31:51,120

and constants that i converted to

975

00:31:48,640 --> 00:31:53,279

functions just because i wanted

976

00:31:51,120 --> 00:31:54,159

the ide to change their color when i

977

00:31:53,279 --> 00:31:57,519

type them

978

00:31:54,159 --> 00:32:00,640

especially because they're longer and i

979

00:31:57,519 --> 00:32:01,440

i kept misspelling them so i have some

980

00:32:00,640 --> 00:32:04,880

for example

981

00:32:01,440 --> 00:32:06,320

for message box i have some long

982

00:32:04,880 --> 00:32:08,320

variables like

983

00:32:06,320 --> 00:32:10,320

that define the type of message box is

984

00:32:08,320 --> 00:32:11,679

it going to show an exclamation icon or

985

00:32:10,320 --> 00:32:15,519

a question mark

986

00:32:11,679 --> 00:32:19,039

and is it going to show i has no buttons

987

00:32:15,519 --> 00:32:21,360

button set or yes no cancel button set

988

00:32:19,039 --> 00:32:23,279

they were pretty long names i kept

989

00:32:21,360 --> 00:32:24,159

misspelling them so i convert them from

990

00:32:23,279 --> 00:32:26,320

constants

991

00:32:24,159 --> 00:32:28,399

to functions and then as i type them if

992

00:32:26,320 --> 00:32:30,159

qb64 changes them to green

993

00:32:28,399 --> 00:32:32,399

which is the color i use for functions

994

00:32:30,159 --> 00:32:33,279

and subs i know it's correct then that

995

00:32:32,399 --> 00:32:37,279

was a

996

00:32:33,279 --> 00:32:40,720

a cheat technique i used so i kind of

997

00:32:37,279 --> 00:32:42,240

am doing that but for completely wrong

998

00:32:40,720 --> 00:32:43,760

reasons looking for love in the wrong

999

00:32:42,240 --> 00:32:45,360

places

1000

00:32:43,760 --> 00:32:48,559

i did something similar to that when i

1001

00:32:45,360 --> 00:32:51,679

did my uh uuid library

1002

00:32:48,559 --> 00:32:53,039

there is a function in one api for the

1003

00:32:51,679 --> 00:32:56,480

uid is called nil

1004

00:32:53,039 --> 00:32:59,440

uuid and literally all it does is return

1005

00:32:56,480 --> 00:33:01,039

a uuid object with everything set to

1006

00:32:59,440 --> 00:33:03,360

zero

1007

00:33:01,039 --> 00:33:05,679

so i thought that's a little stupid i

1008

00:33:03,360 --> 00:33:07,760

don't need to recall when api do that

1009

00:33:05,679 --> 00:33:10,039

so i just basically made a function that

1010

00:33:07,760 --> 00:33:13,600

just says return

1011

00:33:10,039 --> 00:33:16,960

0.000 you know and then that's it

1012

00:33:13,600 --> 00:33:18,880

enough right it does it john

1013

00:33:16,960 --> 00:33:20,720

it's funny the role of xero in many

1014

00:33:18,880 --> 00:33:23,120

intellectual systems is

1015

00:33:20,720 --> 00:33:24,640

never trivial if you open any good book

1016

00:33:23,120 --> 00:33:26,799

on linear algebra or

1017

00:33:24,640 --> 00:33:28,480

regular algebra they'll spend what seems

1018

00:33:26,799 --> 00:33:30,399

like useless pages why spend three

1019

00:33:28,480 --> 00:33:32,080

paragraphs explaining why adding zero to

1020

00:33:30,399 --> 00:33:33,760

a number results in the original number

1021

00:33:32,080 --> 00:33:35,440

and only zero has this property

1022

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

and there's only one zero there are

1023

00:33:35,440 --> 00:33:38,720

several that do this and it's like what

1024

00:33:37,279 --> 00:33:40,320

the hell are you elaborating all this

1025

00:33:38,720 --> 00:33:41,120

for only later you realize like all

1026

00:33:40,320 --> 00:33:44,000

right i can

1027

00:33:41,120 --> 00:33:44,960

you know kind of see it um in computing

1028

00:33:44,000 --> 00:33:46,960

you know the

1029

00:33:44,960 --> 00:33:48,320

what is zero versus what is null versus

1030

00:33:46,960 --> 00:33:51,360

what is not a number

1031

00:33:48,320 --> 00:33:52,080

what is undefined uh you know these are

1032

00:33:51,360 --> 00:33:55,120

more javascript

1033

00:33:52,080 --> 00:33:57,279

problems but you know qb64 has similar

1034

00:33:55,120 --> 00:33:58,559

similar issues when you start to start

1035

00:33:57,279 --> 00:34:02,559

playing with

1036

00:33:58,559 --> 00:34:05,919

playing with fire i guess well regarding

1037

00:34:02,559 --> 00:34:07,120

style and coding practices anything else

1038

00:34:05,919 --> 00:34:10,960

we should add to the cake

1039

00:34:07,120 --> 00:34:12,320

recipe i feel like we haven't

1040

00:34:10,960 --> 00:34:13,679

scratched the surface we're only still

1041

00:34:12,320 --> 00:34:16,079

talking about the top of the program

1042

00:34:13,679 --> 00:34:17,839

this wasn't a six hour episode

1043

00:34:16,079 --> 00:34:21,839

oh i i guess we're gonna have to break

1044

00:34:17,839 --> 00:34:21,839

it up for our audiences

1045

00:34:23,119 --> 00:34:28,240

it's all a matter of how you feel

1046

00:34:26,320 --> 00:34:29,440

comfortable coding i think is a big

1047

00:34:28,240 --> 00:34:31,599

thing too what you

1048

00:34:29,440 --> 00:34:33,119

find makes it go easier for you because

1049

00:34:31,599 --> 00:34:34,079

if it doesn't go easy you don't want to

1050

00:34:33,119 --> 00:34:36,320

do it

1051

00:34:34,079 --> 00:34:37,679

so people drop out real quick because

1052

00:34:36,320 --> 00:34:39,200

this is hard i'm trying to do it like

1053

00:34:37,679 --> 00:34:41,440

him why can't i

1054

00:34:39,200 --> 00:34:43,280

and then you know if you step back and

1055

00:34:41,440 --> 00:34:44,240

go oh if i do it this way it's a lot

1056

00:34:43,280 --> 00:34:45,679

easier

1057

00:34:44,240 --> 00:34:48,399

but it's different than everybody else

1058

00:34:45,679 --> 00:34:50,159

so i'll do it this way

1059

00:34:48,399 --> 00:34:52,000

yeah and today it's also kind of like a

1060

00:34:50,159 --> 00:34:53,760

matter of like intention to like already

1061

00:34:52,000 --> 00:34:55,359

want it to make it for yourself

1062

00:34:53,760 --> 00:34:57,200

or are you making up the intention of

1063

00:34:55,359 --> 00:34:58,560

saying hey here's everybody here's what

1064

00:34:57,200 --> 00:35:00,160

i made

1065

00:34:58,560 --> 00:35:02,160

and so you kind of think about okay if

1066

00:35:00,160 --> 00:35:03,200

i'm gonna do that well i probably need

1067

00:35:02,160 --> 00:35:05,119

to break down my

1068

00:35:03,200 --> 00:35:06,640

huge long long program into several

1069

00:35:05,119 --> 00:35:08,160

functions so i'm not repeating myself

1070

00:35:06,640 --> 00:35:09,119

and just breaking things up

1071

00:35:08,160 --> 00:35:12,480

otherwise they're looking at they're

1072

00:35:09,119 --> 00:35:12,480

gonna say i ain't reading all that

1073

00:35:13,440 --> 00:35:17,280

yeah and once again that audience member

1074

00:35:15,599 --> 00:35:17,760

might be you in the future like you know

1075

00:35:17,280 --> 00:35:19,280

become

1076

00:35:17,760 --> 00:35:20,880

come back to the project after doing a

1077

00:35:19,280 --> 00:35:22,560

few hard ones you feel more enlightened

1078

00:35:20,880 --> 00:35:24,720

you say oh my god my old work is

1079

00:35:22,560 --> 00:35:26,000

insulting to me i can't stand this

1080

00:35:24,720 --> 00:35:28,079

that's why anything

1081

00:35:26,000 --> 00:35:29,760

anything i flaunt online is no more than

1082

00:35:28,079 --> 00:35:30,960

two years old i just i can't even stand

1083

00:35:29,760 --> 00:35:33,440

even my three-year-old

1084

00:35:30,960 --> 00:35:35,119

practices it's true yeah i've been going

1085

00:35:33,440 --> 00:35:36,800

through my old stuff backing stuff

1086

00:35:35,119 --> 00:35:39,040

up and i pulled up programs that i had

1087

00:35:36,800 --> 00:35:39,520

to have written they even have my name

1088

00:35:39,040 --> 00:35:41,440

on them

1089

00:35:39,520 --> 00:35:44,320

and i'm like how in the world did i do

1090

00:35:41,440 --> 00:35:46,079

that who's the idiot who wrote this line

1091

00:35:44,320 --> 00:35:48,079

oh just stuff that works i'm like how

1092

00:35:46,079 --> 00:35:48,800

did that work but you run it and there

1093

00:35:48,079 --> 00:35:53,760

it is i'm like

1094

00:35:48,800 --> 00:35:56,079

wow i've changed over the last 20 years

1095

00:35:53,760 --> 00:35:58,079

yeah it's a gesture of kind of kindness

1096

00:35:56,079 --> 00:35:59,040

to other programmers who may want to

1097

00:35:58,079 --> 00:36:00,800

look at your code but

1098

00:35:59,040 --> 00:36:03,200

as bill said it's essentially a gesture

1099

00:36:00,800 --> 00:36:05,359

of kindness to your own future self

1100

00:36:03,200 --> 00:36:07,359

like write good well structure code

1101

00:36:05,359 --> 00:36:08,000

because if you ever need to go back to

1102

00:36:07,359 --> 00:36:09,440

it

1103

00:36:08,000 --> 00:36:12,880

it's gonna you're gonna have a better

1104

00:36:09,440 --> 00:36:15,520

time right ah we didn't mention comments

1105

00:36:12,880 --> 00:36:17,839

oh that's true do you guys comment how

1106

00:36:15,520 --> 00:36:22,720

verbose are you guys

1107

00:36:17,839 --> 00:36:22,720

uh i'm gonna say near zero

1108

00:36:23,200 --> 00:36:26,640

but then somebody's going to come up

1109

00:36:25,119 --> 00:36:28,640

here and say good code

1110

00:36:26,640 --> 00:36:30,320

well written code doesn't need comments

1111

00:36:28,640 --> 00:36:32,800

the code is the comment

1112

00:36:30,320 --> 00:36:34,480

if i ever use if i ever use a comment

1113

00:36:32,800 --> 00:36:36,160

it's when something is extremely

1114

00:36:34,480 --> 00:36:38,800

extremely vague

1115

00:36:36,160 --> 00:36:40,320

like whenever a function call is just

1116

00:36:38,800 --> 00:36:42,079

looks like it's not even useful like for

1117

00:36:40,320 --> 00:36:45,760

instance whenever i did recently

1118

00:36:42,079 --> 00:36:47,839

um a video downloader through one api

1119

00:36:45,760 --> 00:36:49,119

uh when you first do the call if you

1120

00:36:47,839 --> 00:36:51,040

call it with a zero

1121

00:36:49,119 --> 00:36:52,320

parameter in one of the fields it

1122

00:36:51,040 --> 00:36:55,280

returns back the

1123

00:36:52,320 --> 00:36:55,760

need the buffer size you need for that

1124

00:36:55,280 --> 00:36:57,760

call

1125

00:36:55,760 --> 00:36:59,200

so you call it twice this might look at

1126

00:36:57,760 --> 00:37:00,800

that and it may think why is he calling

1127

00:36:59,200 --> 00:37:02,160

it twice looks stupid why is he doing

1128

00:37:00,800 --> 00:37:03,599

that i'll i'll comment here out it's

1129

00:37:02,160 --> 00:37:06,079

neither doing this one here at all

1130

00:37:03,599 --> 00:37:07,200

but i had to comment saying this one is

1131

00:37:06,079 --> 00:37:09,119

for getting the length

1132

00:37:07,200 --> 00:37:10,320

this one actually does the real thing

1133

00:37:09,119 --> 00:37:11,440

but otherwise you're gonna they're gonna

1134

00:37:10,320 --> 00:37:13,680

think that i don't need that they'll

1135

00:37:11,440 --> 00:37:15,359

delete it and then mess up the code

1136

00:37:13,680 --> 00:37:17,200

mess it all up and come to you and say

1137

00:37:15,359 --> 00:37:17,680

this is not working why is it not

1138

00:37:17,200 --> 00:37:20,800

working

1139

00:37:17,680 --> 00:37:23,560

exactly yeah two

1140

00:37:20,800 --> 00:37:25,440

if you plan on taking a break or even if

1141

00:37:23,560 --> 00:37:26,960

unexpectedly take a break and have to

1142

00:37:25,440 --> 00:37:28,160

come back to the code

1143

00:37:26,960 --> 00:37:29,839

if there's not a comment or something

1144

00:37:28,160 --> 00:37:31,839

you're going to think stare at it going

1145

00:37:29,839 --> 00:37:33,440

why did i do that again

1146

00:37:31,839 --> 00:37:35,040

what does that fix or what does that

1147

00:37:33,440 --> 00:37:36,400

break or you know

1148

00:37:35,040 --> 00:37:38,560

if you got a long pause you're not going

1149

00:37:36,400 --> 00:37:40,560

to remember so if without a comment you

1150

00:37:38,560 --> 00:37:42,880

could have to redo the entire thing

1151

00:37:40,560 --> 00:37:45,280

again oh yeah yeah

1152

00:37:42,880 --> 00:37:47,440

yeah um i i guess i'm with i'm with zach

1153

00:37:45,280 --> 00:37:50,079

on my uh my number of comments is

1154

00:37:47,440 --> 00:37:51,440

so near zero that if i can actually

1155

00:37:50,079 --> 00:37:52,560

recall you know actually look at the

1156

00:37:51,440 --> 00:37:53,359

number of comments i've written in the

1157

00:37:52,560 --> 00:37:55,440

last year

1158

00:37:53,359 --> 00:37:56,190

they've been personal notes to philippe

1159

00:37:55,440 --> 00:37:57,760

about

1160

00:37:56,190 --> 00:38:00,800

[Laughter]

1161

00:37:57,760 --> 00:38:02,000

it's about here's the spot change this

1162

00:38:00,800 --> 00:38:03,359

number whatever and it's only happened

1163

00:38:02,000 --> 00:38:05,119

about twice um

1164

00:38:03,359 --> 00:38:08,640

yeah i really really don't say what's

1165

00:38:05,119 --> 00:38:10,560

going on in the code thank you for that

1166

00:38:08,640 --> 00:38:12,079

i guess that's part of the verbosity

1167

00:38:10,560 --> 00:38:12,640

trade-off with doing everything as a

1168

00:38:12,079 --> 00:38:15,119

function

1169

00:38:12,640 --> 00:38:15,839

if if you look at you know a broken down

1170

00:38:15,119 --> 00:38:17,359

view of

1171

00:38:15,839 --> 00:38:18,880

because what is a common it's one line

1172

00:38:17,359 --> 00:38:20,480

of tests explaining what's going on

1173

00:38:18,880 --> 00:38:22,079

if your code really does that then i'll

1174

00:38:20,480 --> 00:38:24,160

be that guy for you if

1175

00:38:22,079 --> 00:38:26,320

your code is good then your code is the

1176

00:38:24,160 --> 00:38:28,480

comment uh for me at least

1177

00:38:26,320 --> 00:38:30,320

and um and we always talk about coming

1178

00:38:28,480 --> 00:38:32,079

back to code as if though as if we're

1179

00:38:30,320 --> 00:38:33,280

gonna you know edit it or report it to

1180

00:38:32,079 --> 00:38:35,119

something or just sort of

1181

00:38:33,280 --> 00:38:37,200

bring the dust off and try to remember

1182

00:38:35,119 --> 00:38:37,839

it again it may be true that old code

1183

00:38:37,200 --> 00:38:39,760

might need to

1184

00:38:37,839 --> 00:38:42,800

integrate into some new code you've

1185

00:38:39,760 --> 00:38:44,400

written say uh

1186

00:38:42,800 --> 00:38:46,000

so so what's the interface you know

1187

00:38:44,400 --> 00:38:47,440

suppose you write some old program and

1188

00:38:46,000 --> 00:38:48,800

it gives you some kind of result but it

1189

00:38:47,440 --> 00:38:51,680

gives you the

1190

00:38:48,800 --> 00:38:52,960

answer as a jpeg um or something like

1191

00:38:51,680 --> 00:38:54,079

that or if it gives it gives you the

1192

00:38:52,960 --> 00:38:55,760

answer as a

1193

00:38:54,079 --> 00:38:57,440

an old windows picture database and

1194

00:38:55,760 --> 00:38:58,320

there's thumbs.db in there i'm just

1195

00:38:57,440 --> 00:39:00,720

thinking of any

1196

00:38:58,320 --> 00:39:01,359

horrendous output object at all that

1197

00:39:00,720 --> 00:39:02,880

might not be

1198

00:39:01,359 --> 00:39:04,079

compatible with 20 years later so it's

1199

00:39:02,880 --> 00:39:05,280

really good to think of what are the

1200

00:39:04,079 --> 00:39:07,359

outputs of your program what

1201

00:39:05,280 --> 00:39:08,720

what is the goal of this actual thing

1202

00:39:07,359 --> 00:39:11,119

and if you can reduce it down to a

1203

00:39:08,720 --> 00:39:14,160

stream of text then do it

1204

00:39:11,119 --> 00:39:16,240

side note yeah when i write

1205

00:39:14,160 --> 00:39:17,760

i tend to have very long variable names

1206

00:39:16,240 --> 00:39:21,119

sometimes because they

1207

00:39:17,760 --> 00:39:24,160

tend to make it more self-explaining

1208

00:39:21,119 --> 00:39:25,440

so a equals this of course

1209

00:39:24,160 --> 00:39:28,000

is going to have you're going to have a

1210

00:39:25,440 --> 00:39:30,720

hard time remembering what a means later

1211

00:39:28,000 --> 00:39:31,920

oh there's the chiming clock what time

1212

00:39:30,720 --> 00:39:34,160

is it now

1213

00:39:31,920 --> 00:39:35,839

seven o'clock here seven o'clock

1214

00:39:34,160 --> 00:39:38,720

dinner's ready

1215

00:39:35,839 --> 00:39:39,359

is it actually it is yeah actually it is

1216

00:39:38,720 --> 00:39:41,440

okay

1217

00:39:39,359 --> 00:39:42,560

we're releasing you soon we're releasing

1218

00:39:41,440 --> 00:39:44,079

you shortly okay

1219

00:39:42,560 --> 00:39:45,760

it's going to still be coming out of the

1220

00:39:44,079 --> 00:39:48,960

oven

1221

00:39:45,760 --> 00:39:50,560

but uh well it may be some turkey right

1222

00:39:48,960 --> 00:39:52,320

thanksgiving was just the other day

1223

00:39:50,560 --> 00:39:53,680

around maybe some leftover

1224

00:39:52,320 --> 00:39:56,560

yeah i think the kids wanted mac and

1225

00:39:53,680 --> 00:39:58,800

cheese tonight nice

1226

00:39:56,560 --> 00:40:00,800

so uh i was talking about long variable

1227

00:39:58,800 --> 00:40:02,079

names sometimes i have some ridiculously

1228

00:40:00,800 --> 00:40:04,079

long variable names

1229

00:40:02,079 --> 00:40:05,359

and i tend to refrain from doing that we

1230

00:40:04,079 --> 00:40:08,560

have a limit too

1231

00:40:05,359 --> 00:40:10,640

uh our identifiers in basic and in qb64

1232

00:40:08,560 --> 00:40:12,480

can be up to 40 characters long

1233

00:40:10,640 --> 00:40:14,240

so we have that limit but even 40

1234

00:40:12,480 --> 00:40:14,800

characters is pretty long but i tend to

1235

00:40:14,240 --> 00:40:17,280

have

1236

00:40:14,800 --> 00:40:18,640

long variable names that are self uh

1237

00:40:17,280 --> 00:40:21,119

self descriptive

1238

00:40:18,640 --> 00:40:21,760

and that kind of helps reduce but

1239

00:40:21,119 --> 00:40:24,480

sometimes

1240

00:40:21,760 --> 00:40:26,480

you will find my own code very heavily

1241

00:40:24,480 --> 00:40:29,680

commented for myself

1242

00:40:26,480 --> 00:40:31,920

when i had a hard time figuring out

1243

00:40:29,680 --> 00:40:33,760

how to how to do that for example in

1244

00:40:31,920 --> 00:40:37,200

inform recently

1245

00:40:33,760 --> 00:40:38,240

i wrote a code to make controls snap to

1246

00:40:37,200 --> 00:40:40,720

each other

1247

00:40:38,240 --> 00:40:43,440

now i'm having to go back to that to

1248

00:40:40,720 --> 00:40:46,480

snap controls when i'm resizing them too

1249

00:40:43,440 --> 00:40:49,760

and it's it's been a nightmare

1250

00:40:46,480 --> 00:40:52,480

but the comments i left there for my own

1251

00:40:49,760 --> 00:40:54,560

review later they helped a lot so it's

1252

00:40:52,480 --> 00:40:56,480

important sometimes

1253

00:40:54,560 --> 00:40:58,560

you know speaking of long variable names

1254

00:40:56,480 --> 00:40:59,280

uh how we have a cap on how long you can

1255

00:40:58,560 --> 00:41:01,119

make it

1256

00:40:59,280 --> 00:41:02,800

i remember i had to do one of the one

1257

00:41:01,119 --> 00:41:05,520

api things that i did

1258

00:41:02,800 --> 00:41:06,000

and the constant was actually longer

1259

00:41:05,520 --> 00:41:09,200

than our

1260

00:41:06,000 --> 00:41:11,119

cap and i thought why in the world would

1261

00:41:09,200 --> 00:41:12,880

you want a constant that long when you

1262

00:41:11,119 --> 00:41:14,560

when you do your function call it's

1263

00:41:12,880 --> 00:41:15,200

going to be you know this long across

1264

00:41:14,560 --> 00:41:17,280

the screen

1265

00:41:15,200 --> 00:41:18,560

put that one variable in there so i had

1266

00:41:17,280 --> 00:41:20,720

to you know cut out

1267

00:41:18,560 --> 00:41:21,920

a bunch of characters to get fit but i

1268

00:41:20,720 --> 00:41:22,720

thought you know there's no there's no

1269

00:41:21,920 --> 00:41:25,920

reason to have a

1270

00:41:22,720 --> 00:41:27,839

you know variable that long

1271

00:41:25,920 --> 00:41:29,520

there's microsoft breaking what they

1272

00:41:27,839 --> 00:41:32,839

created they

1273

00:41:29,520 --> 00:41:35,839

posed the limit and now they're breaking

1274

00:41:32,839 --> 00:41:35,839

it

1275

00:41:36,400 --> 00:41:40,319

okay i think you can wrap is it a good

1276

00:41:38,319 --> 00:41:42,400

time to wrap

1277

00:41:40,319 --> 00:41:43,920

uh yeah sure before i start calculating

1278

00:41:42,400 --> 00:41:45,599

the absolute limit to the number of

1279

00:41:43,920 --> 00:41:46,720

variables we can have because what is it

1280

00:41:45,599 --> 00:41:48,319

we have

1281

00:41:46,720 --> 00:41:50,079

26 letters of the alphabet plus the

1282

00:41:48,319 --> 00:41:51,680

numbers and what other symbols belong in

1283

00:41:50,079 --> 00:41:53,280

variables so whatever that is it's that

1284

00:41:51,680 --> 00:41:54,720

to the 40th that's how many variables

1285

00:41:53,280 --> 00:41:58,000

you can have i guess

1286

00:41:54,720 --> 00:41:59,119

well you you can have dots in variables

1287

00:41:58,000 --> 00:42:02,160

but they count

1288

00:41:59,119 --> 00:42:03,680

in the in the total number of characters

1289

00:42:02,160 --> 00:42:06,160

you can have

1290

00:42:03,680 --> 00:42:07,680

which is also a good point to touch

1291

00:42:06,160 --> 00:42:12,040

variables with dots

1292

00:42:07,680 --> 00:42:14,800

am i right why would you

1293

00:42:12,040 --> 00:42:17,839

3.5 i don't even know what that is

1294

00:42:14,800 --> 00:42:17,839

lots of zeros

1295

00:42:17,920 --> 00:42:24,720

3.5 to the 78th power so

1296

00:42:21,839 --> 00:42:25,680

i'm not even going to try to parse that

1297

00:42:24,720 --> 00:42:28,160

it's a big number

1298

00:42:25,680 --> 00:42:29,839

um yeah so how about dots and variable

1299

00:42:28,160 --> 00:42:31,440

names so if it wasn't for the user type

1300

00:42:29,839 --> 00:42:33,599

system i would say have a ball

1301

00:42:31,440 --> 00:42:35,200

put them in there um and there's really

1302

00:42:33,599 --> 00:42:36,000

you know the compiler doesn't forbid you

1303

00:42:35,200 --> 00:42:39,119

from having

1304

00:42:36,000 --> 00:42:41,920

dots and names the only you know

1305

00:42:39,119 --> 00:42:43,359

the only argument against it is just so

1306

00:42:41,920 --> 00:42:44,480

yourself and so other people can read

1307

00:42:43,359 --> 00:42:46,000

your code they say

1308

00:42:44,480 --> 00:42:47,599

all right i see a name of the dot in it

1309

00:42:46,000 --> 00:42:49,599

does that mean this is something

1310

00:42:47,599 --> 00:42:50,640

type something or is that simply a name

1311

00:42:49,599 --> 00:42:53,040

with a dot in it

1312

00:42:50,640 --> 00:42:54,079

um yeah i've done that before the

1313

00:42:53,040 --> 00:42:55,839

compiler

1314

00:42:54,079 --> 00:42:57,280

you know it's it's not illegal to do

1315

00:42:55,839 --> 00:42:58,560

certain things but you shouldn't do them

1316

00:42:57,280 --> 00:42:59,760

anyway

1317

00:42:58,560 --> 00:43:01,440

i don't know i don't know a lot in

1318

00:42:59,760 --> 00:43:02,640

everybody's country so i won't elaborate

1319

00:43:01,440 --> 00:43:03,280

but you know you shouldn't you just

1320

00:43:02,640 --> 00:43:05,920

shouldn't

1321

00:43:03,280 --> 00:43:07,760

i've only ever used a dot where it's not

1322

00:43:05,920 --> 00:43:10,000

in a type it's when i used in that

1323

00:43:07,760 --> 00:43:11,599

uh string dot or place you know removed

1324

00:43:10,000 --> 00:43:14,079

because i was trying to

1325

00:43:11,599 --> 00:43:15,599

make the association that this is

1326

00:43:14,079 --> 00:43:18,000

replicating

1327

00:43:15,599 --> 00:43:19,520

a function found in other languages

1328

00:43:18,000 --> 00:43:21,839

where you have the variable

1329

00:43:19,520 --> 00:43:23,599

dot the functions that can be used on

1330

00:43:21,839 --> 00:43:27,119

that string so dot replace dot

1331

00:43:23,599 --> 00:43:28,480

right now and i'm probably crossing

1332

00:43:27,119 --> 00:43:30,640

oh sorry i was gonna i'm probably

1333

00:43:28,480 --> 00:43:32,079

crossing terms when i say this but it

1334

00:43:30,640 --> 00:43:33,760

seems like it's more of an operator when

1335

00:43:32,079 --> 00:43:35,680

used that way right if i just write

1336

00:43:33,760 --> 00:43:37,520

string dot length and you don't really

1337

00:43:35,680 --> 00:43:38,960

have to send it an argument you just say

1338

00:43:37,520 --> 00:43:40,720

it's really acting like an operator

1339

00:43:38,960 --> 00:43:41,680

there as if i put a factorial or

1340

00:43:40,720 --> 00:43:44,560

something

1341

00:43:41,680 --> 00:43:45,520

um yeah less of a function and this is

1342

00:43:44,560 --> 00:43:48,319

once again a whole new

1343

00:43:45,520 --> 00:43:50,079

episode on uh what's more general

1344

00:43:48,319 --> 00:43:50,480

operators of functions and what contains

1345

00:43:50,079 --> 00:43:52,839

what

1346

00:43:50,480 --> 00:43:54,960

i mean there is an answer to that there

1347

00:43:52,839 --> 00:43:57,280

is i think so i think

1348

00:43:54,960 --> 00:43:58,720

i think functions are more fundamental

1349

00:43:57,280 --> 00:44:01,920

than operators but

1350

00:43:58,720 --> 00:44:03,440

then again uh you could completely

1351

00:44:01,920 --> 00:44:05,200

start with the other axiom and make the

1352

00:44:03,440 --> 00:44:06,480

other argument there might not be in it

1353

00:44:05,200 --> 00:44:08,319

maybe there isn't an answer actually

1354

00:44:06,480 --> 00:44:10,720

thanks for thanks for asking

1355

00:44:08,319 --> 00:44:12,000

i don't think there is one we can come

1356

00:44:10,720 --> 00:44:14,319

up with something after five or six

1357

00:44:12,000 --> 00:44:15,920

hours

1358

00:44:14,319 --> 00:44:17,520

if it hasn't decided by now then there

1359

00:44:15,920 --> 00:44:21,200

probably isn't a good answer

1360

00:44:17,520 --> 00:44:23,599

probably at the end of the day styles

1361

00:44:21,200 --> 00:44:24,800

for codings are like styles for

1362

00:44:23,599 --> 00:44:27,200

languages i mean

1363

00:44:24,800 --> 00:44:27,920

human languages everybody is speaking

1364

00:44:27,200 --> 00:44:29,200

english but

1365

00:44:27,920 --> 00:44:31,119

everybody has a different style

1366

00:44:29,200 --> 00:44:32,640

everybody has a personal style right

1367

00:44:31,119 --> 00:44:34,640

which derives from your parents and the

1368

00:44:32,640 --> 00:44:36,480

people you live with and

1369

00:44:34,640 --> 00:44:38,480

right but we're all understanding each

1370

00:44:36,480 --> 00:44:42,319

other of course i can

1371

00:44:38,480 --> 00:44:44,720

uh mask my language i can use slang

1372

00:44:42,319 --> 00:44:46,160

and that would be like the equivalent to

1373

00:44:44,720 --> 00:44:47,760

writing code

1374

00:44:46,160 --> 00:44:50,800

in a way that people have a hard time

1375

00:44:47,760 --> 00:44:53,359

understanding right intentionally maybe

1376

00:44:50,800 --> 00:44:55,440

but at the end of the day it's it boils

1377

00:44:53,359 --> 00:44:58,000

down to generosity to other people

1378

00:44:55,440 --> 00:45:00,240

can we rap on that line on that note

1379

00:44:58,000 --> 00:45:02,720

yeah

1380

00:45:00,240 --> 00:45:05,359

yeah you know to other people and and

1381

00:45:02,720 --> 00:45:06,640

and to the thing itself you know if

1382

00:45:05,359 --> 00:45:08,319

i'll never say his name right but

1383

00:45:06,640 --> 00:45:09,040

dijkstra whatever however you say his

1384

00:45:08,319 --> 00:45:12,560

name

1385

00:45:09,040 --> 00:45:14,960

uh he let us know that elegance is

1386

00:45:12,560 --> 00:45:16,720

you know not only nice but it should be

1387

00:45:14,960 --> 00:45:18,400

part of the solution as a requirement it

1388

00:45:16,720 --> 00:45:21,440

should be as part of the solution

1389

00:45:18,400 --> 00:45:23,200

required to have elegance in it um

1390

00:45:21,440 --> 00:45:24,640

so for no other reason have good style

1391

00:45:23,200 --> 00:45:26,400

for that do it it's for the sake of the

1392

00:45:24,640 --> 00:45:30,000

project if the code could be alive

1393

00:45:26,400 --> 00:45:30,000

it would thank you for being so pretty

1394

00:45:30,160 --> 00:45:34,960

that's a great remark gentlemen

1395

00:45:33,200 --> 00:45:36,720

it was a pleasure chatting with you

1396

00:45:34,960 --> 00:45:37,920

tonight thank you so much for being part

1397

00:45:36,720 --> 00:45:41,440

of it

1398

00:45:37,920 --> 00:45:43,440

thank you thank you pleasure is all mine

1399

00:45:41,440 --> 00:45:44,800

and i'll catch you next time love you

1400

00:45:43,440 --> 00:45:49,040

guys

1401

00:45:44,800 --> 00:45:49,040

see ya