



Christoph Flamm

*Using Graph Grammars to Discover Reaction  
Patterns in Reaction Networks*

1  
00:00:00,720 --> 00:00:11,509

[music]

2  
00:00:17,580 --> 00:00:16,679

babe or mostly saxony such a panic

3  
00:00:24,710 --> 00:00:17,590

overtime

4  
00:00:27,569 --> 00:00:24,720

the vfn lip you in the tool

5  
00:00:31,889 --> 00:00:27,579

computer sand is daniel merckle

6  
00:00:34,889 --> 00:00:31,899

senior jakob jakob different and what he

7  
00:00:39,720 --> 00:00:34,899

formally form on your mailbox

8  
00:00:43,500 --> 00:00:39,730

the slow with me in jena leipzig but

9  
00:00:50,119 --> 00:00:43,510

have mainframes will read secret platforms

10  
00:00:51,720 --> 00:00:50,129

yes such look of computational

11  
00:00:59,579 --> 00:00:51,730

chemistry

12  
00:01:14,580 --> 00:00:59,589

because this news to the possible news and

13  
00:01:20,250 --> 00:01:14,590

the and the highland games and on the

14  
00:01:25,920 --> 00:01:20,260  
spectrum of the enemy of the day as a tactician

15  
00:01:30,530 --> 00:01:25,930  
of the last year's computational relatively

16  
00:01:33,890 --> 00:01:30,540  
lies relatively complete quantum mechanics

17  
00:01:36,900 --> 00:01:33,900  
calculation angeles youtube star the

18  
00:01:41,870 --> 00:01:36,910  
wii action network as well as investment

19  
00:01:59,870 --> 00:01:41,880  
properties of life action networks in

20  
00:02:08,279 --> 00:02:04,680  
economics and peace is the steve raid

21  
00:02:10,559 --> 00:02:08,289  
levels of you can use a connected with

22  
00:02:14,309 --> 00:02:10,569  
each other

23  
00:02:17,209 --> 00:02:14,319  
whether they are people so by soy proxy

24  
00:02:17,219 --> 00:02:23,449  
ralf-michael calculation from the

25  
00:02:47,869 --> 00:02:41,069  
running back okay so complex the 1 of the

26

00:03:11,129 --> 00:02:51,659

chemistry so do this the stamford

27

00:03:13,349 --> 00:03:11,139

bridge system monitoring tools to the

28

00:03:17,309 --> 00:03:13,359

actions and that way

29

00:03:21,479 --> 00:03:17,319

the swisscom components here is an

30

00:03:28,199 --> 00:03:21,489

extract dispute broke out read out to

31

00:03:29,369 --> 00:03:28,209

capture okay so was interested

32

00:03:32,580 --> 00:03:29,379

he is up to 20

33

00:03:36,509 --> 00:03:32,590

here is george whitesides people

34

00:03:39,569 --> 00:03:36,519

the story came from wii action story

35

00:03:42,270 --> 00:03:39,579

action network as well as hexers organ as an

36

00:03:45,420 --> 00:03:42,280

intro interaction networks the one to

37

00:03:49,280 --> 00:03:45,430

study the hexen networks rheine it

38

00:04:00,899 --> 00:03:49,290

is the teacher complex from here the

39

00:04:10,440 --> 00:04:00,909

action networks of the project networks so

40

00:04:16,229 --> 00:04:14,230

component of cos all those in the so lord

41

00:04:20,500 --> 00:04:16,239

of bed rest ingo selle the

42

00:04:22,810 --> 00:04:20,510

crisis response networks package cannot

43

00:04:45,390 --> 00:04:22,820

be accessed by read a year ago so

44

00:04:56,950 --> 00:04:53,940

here from dynamics the computational

45

00:05:07,260 --> 00:04:56,960

possibility that we have here is my

46

00:05:14,440 --> 00:05:10,750

managers is the so far read up front had

47

00:05:18,400 --> 00:05:14,450

objections had projects that were top

48

00:05:21,600 --> 00:05:18,410

teams like you can use it might get much much much

49

00:05:22,830 --> 00:05:21,610

more expensive you get

50

00:05:25,780 --> 00:05:22,840

[music]

51  
00:05:28,870 --> 00:05:25,790  
function from here now north sea kelly

52  
00:05:34,000 --> 00:05:28,880  
vanderbeek the commuter question should

53  
00:05:39,400 --> 00:05:34,010  
experience the situation this points to

54  
00:06:03,959 --> 00:05:39,410  
the scouts of the action networks was it

55  
00:06:13,850 --> 00:06:07,319  
reaction something like buttons broad

56  
00:06:21,269 --> 00:06:16,529  
starting this patterns and apply which

57  
00:06:32,729 --> 00:06:21,279  
later dominate

58  
00:06:36,449 --> 00:06:32,739  
the composition on reactions

59  
00:06:40,439 --> 00:06:36,459  
broad so if your formula reads compost

60  
00:06:47,009 --> 00:06:40,449  
is half read out peters to generate reaction

61  
00:06:50,669 --> 00:06:47,019  
networks

62  
00:06:55,979 --> 00:06:50,679  
and if we don't huskies dashing the strangeness

63  
00:07:28,279 --> 00:06:55,989

the technology of a top locations

64

00:07:32,519 --> 00:07:30,389

eleven of the basic properties of

65

00:07:34,379 --> 00:07:32,529

chemistry really on the most

66

00:07:54,569 --> 00:07:34,389

important fans he is fully the

67

00:07:58,109 --> 00:07:54,579

conservation networks great powers

68

00:08:01,889 --> 00:07:58,119

when the demanded passau bleeds with whiskey

69

00:08:06,179 --> 00:08:01,899

in reaction advanced is

70

00:08:15,129 --> 00:08:11,129

specific as well as schubert uniforms like

71

00:08:21,719 --> 00:08:15,139

wii action pattern employees enemy

72

00:08:23,399 --> 00:08:21,729

this peter network technology account

73

00:08:25,719 --> 00:08:23,409

buy

74

00:08:28,420 --> 00:08:25,729

usa esche reaction peter know a party

75

00:08:31,680 --> 00:08:28,430

street suite chemistry this

76

00:08:34,449 --> 00:08:31,690

certain reaction boards frequency that

77

00:09:08,550 --> 00:08:34,459

this is not a fink as well as arosa question

78

00:09:13,269 --> 00:09:08,560

stage in his dark waters gets

79

00:09:18,490 --> 00:09:13,279

converted into new labor grafs accession

80

00:09:22,269 --> 00:09:18,500

like sven ottke verdi in disguise otherwise

81

00:09:42,030 --> 00:09:22,279

from slade rubettes integrator details

82

00:09:51,790 --> 00:09:48,329

so if you here discussion

83

00:09:54,220 --> 00:09:51,800

every cent of the production in ossendorf

84

00:09:56,829 --> 00:09:54,230

grafs wide

85

00:09:59,199 --> 00:09:56,839

july the sticker ri un plaisir the

86

00:09:59,800 --> 00:09:59,209

current products and projects in the upper

87

00:10:02,860 --> 00:09:59,810

ranks

88

00:10:08,470 --> 00:10:02,870

because just dance or became chemical

89

00:10:11,420 --> 00:10:08,480

reaction that wide in terms of some

90

00:10:11,430 --> 00:10:19,970

here will bond brakes and candy from

91

00:10:34,980 --> 00:10:32,730

inception context and director of the ipads

92

00:10:36,420 --> 00:10:34,990

in the action by churches during words

93

00:10:39,420 --> 00:10:36,430

from the energy simply checks the

94

00:10:45,710 --> 00:10:39,430

passive city built for the

95

00:10:55,819 --> 00:10:49,139

discovery action peter juesy here is

96

00:10:59,579 --> 00:10:55,829

lets is is tomorrow is ok so the

97

00:11:09,560 --> 00:10:59,589

state of information as well as is how have

98

00:11:15,900 --> 00:11:15,449

so the street worker format read and

99

00:12:05,600 --> 00:11:15,910

paint

100

00:12:05,610 --> 00:12:14,110

[music]

101  
00:12:32,860 --> 00:12:18,380  
so dealer reddox roman valent

102  
00:13:09,050 --> 00:13:04,330  
definition of communication

103  
00:13:15,680 --> 00:13:09,060  
prevail here so basic search for the left

104  
00:13:20,960 --> 00:13:15,690  
the pattern of the reaction to make you

105  
00:13:24,380 --> 00:13:20,970  
feel fine day party in new york a

106  
00:13:38,930 --> 00:13:24,390  
bankruptcy probably from condition wide no

107  
00:13:42,560 --> 00:13:38,940  
plate rule results because that's how to see

108  
00:13:47,930 --> 00:13:42,570  
a theory one to restore sanity the

109  
00:13:52,040 --> 00:13:47,940  
kolping is here is vfb stays in one

110  
00:13:58,280 --> 00:13:52,050  
to one to decide whether to rule scans

111  
00:14:01,400 --> 00:13:58,290  
a happening correlation

112  
00:14:03,980 --> 00:14:01,410  
because how can look what is the relation

113  
00:14:07,760 --> 00:14:03,990

of the riders are so the out of the

114

00:14:13,580 --> 00:14:07,770

first selection and the left side of the

115

00:14:17,140 --> 00:14:13,590

second life a club of particles it

116

00:14:22,820 --> 00:14:17,150

from graf came into the skin of the first

117

00:14:24,340 --> 00:14:22,830

nation which is needed with the second

118

00:14:25,720 --> 00:14:24,350

reaction

119

00:14:30,730 --> 00:14:25,730

[music]

120

00:14:36,770 --> 00:14:33,650

combination is operated the existence

121

00:14:40,100 --> 00:14:36,780

of the first reaction blow prix condition

122

00:14:42,470 --> 00:14:40,110

for the second wave action happens if

123

00:14:44,780 --> 00:14:42,480

the first of action there are happy ours

124

00:14:48,380 --> 00:14:44,790

second reaction knows would have been such a

125

00:14:52,250 --> 00:14:48,390

nice one or kids knows compost has

126

00:14:56,000 --> 00:14:52,260

meanwhile been read to us here at

127

00:15:00,230 --> 00:14:56,010

cancom positive action joke we

128

00:15:02,930 --> 00:15:00,240

also saw that with moritz traction got

129

00:15:04,970 --> 00:15:02,940

construct from toni again reduced the

130

00:15:09,410 --> 00:15:04,980

first and second probably here

131

00:15:12,550 --> 00:15:09,420

with both stars and access tabs in the

132

00:15:30,830 --> 00:15:12,560

sequence in one step with springs with

133

00:15:35,390 --> 00:15:30,840

fromberg back as heroes composition like

134

00:15:37,730 --> 00:15:35,400

napkins data max kruse crusoe partie

135

00:15:42,070 --> 00:15:37,740

of chemical reactions is the de cix

136

00:15:48,740 --> 00:15:42,080

switches akzent [ \_\_\_ ] fro

137

00:16:02,840 --> 00:15:48,750

it is this the last greeting june the

138

00:16:04,100 --> 00:16:02,850

company demands a third victim was

139

00:16:16,620 --> 00:16:04,110

formally able to read

140

00:16:22,800 --> 00:16:20,190

good weather forecasts now the

141

00:16:27,900 --> 00:16:22,810

database should wish you both the reaction

142

00:16:34,310 --> 00:16:27,910

i am speaking from beijing to the motto

143

00:16:41,400 --> 00:16:34,320

here but if you look at the age of

144

00:16:52,490 --> 00:16:41,410

science msc form of the manager is so

145

00:17:04,170 --> 00:16:52,500

easy to transform and to be will the

146

00:17:13,470 --> 00:17:04,180

protection as well as in his reaction ex

147

00:17:18,449 --> 00:17:13,480

panther five matches tabs here is

148

00:17:23,150 --> 00:17:18,459

the always hardcore sury place two for

149

00:17:32,430 --> 00:17:23,160

action to gauge reaction here on the

150

00:17:37,050 --> 00:17:32,440

dna of the mother is the car of the wii action

151

00:17:39,240 --> 00:17:37,060

peter nießen peter hesse ran a trio

152

00:17:54,480 --> 00:17:39,250

in the festival so who are islam knows

153

00:17:58,950 --> 00:17:54,490

knows or major event communicator time

154

00:18:01,770 --> 00:17:58,960

as silicone find here in my chinese and

155

00:18:04,290 --> 00:18:01,780

yes there you are the output is it's a pity

156

00:18:09,120 --> 00:18:04,300

and on the other hand on the kenzinger for

157

00:18:13,919 --> 00:18:09,130

complaining peter black box is installed on websites

158

00:18:21,570 --> 00:18:16,639

archive an interface at that time

159

00:18:26,430 --> 00:18:21,580

was okay as important as

160

00:18:31,769 --> 00:18:26,440

canon simple quality factor

161

00:18:40,649 --> 00:18:31,779

compositions to 50 cents

162

00:18:45,180 --> 00:18:40,659

police raid on the a1 and on his

163

00:18:47,249 --> 00:18:45,190

genital state of the reaction sodis

164

00:18:50,100 --> 00:18:47,259

huge if you like an

165

00:18:54,049 --> 00:18:50,110

interested party is here is according to uci is

166

00:18:56,730 --> 00:18:54,059

is the reaction free fix place

167

00:18:58,820 --> 00:18:56,740

projects early no happy ending in

168

00:19:08,430 --> 00:18:58,830

different places are the sequence here in front of

169

00:19:33,779 --> 00:19:08,440

you until you had known after

170

00:19:45,169 --> 00:19:33,789

reaction force ndf khin win and puts

171

00:19:48,359 --> 00:19:45,179

that basically names five masts after

172

00:19:52,649 --> 00:19:48,369

race number nine types would have already

173

00:20:00,529 --> 00:19:52,659

recognized that recycling reaction to found

174

00:20:19,590 --> 00:20:15,350

expected finding okay just as big as what

175

00:20:23,900 --> 00:20:19,600

they often that he would come is josef

176

00:20:27,980 --> 00:20:23,910

questions for how is more to produce a

177

00:20:30,390 --> 00:20:27,990

constructive minister chemistry

178

00:20:32,610 --> 00:20:30,400

last year's optimization question of the

179

00:20:34,530 --> 00:20:32,620

youngsters of the youngsters of the us- that's how what

180

00:20:37,950 --> 00:20:34,540

you do you celebrate this with action

181

00:20:45,380 --> 00:20:37,960

peter in reaction networks specify

182

00:21:07,500 --> 00:20:45,390

question machine remains network and

183

00:21:11,930 --> 00:21:07,510

dance is action network can use of this

184

00:21:17,180 --> 00:21:11,940

optimization problem finally what in

185

00:21:20,280 --> 00:21:17,190

ahnsen usern optimization technique like

186

00:21:24,180 --> 00:21:20,290

quest best solution because mixa loosened

187

00:21:28,530 --> 00:21:24,190

spectrum on subotic solutions here with

188

00:21:39,150 --> 00:21:28,540

laura information work in the action

189

00:21:40,470 --> 00:21:39,160

network space and construction space so

190

00:21:50,640 --> 00:21:40,480

this is a windscreen stick class for

191

00:21:50,650 --> 00:22:00,860

[music]

192

00:22:00,870 --> 00:22:14,360

the scans indifferent the kvm sound is

193

00:22:27,350 --> 00:22:23,240

diffuse and the sloth in front of it is

194

00:22:31,160 --> 00:22:27,360

a dictator or she is the

195

00:22:36,230 --> 00:22:31,170

notebooks pathways to the falling pharr says

196

00:22:39,680 --> 00:22:36,240

the same origin polymer papa's sequence

197

00:22:43,250 --> 00:22:39,690

how the information happens is the fed

198

00:22:51,130 --> 00:22:43,260

into the studios are sarah kreuz dominik

199

00:23:12,880 --> 00:22:51,140

reith weekend of 13

200

00:23:24,790 --> 00:23:20,900

so top label use of chemistry okay so

201

00:23:29,740 --> 00:23:24,800

I was now also is with formula 1

202

00:23:33,260 --> 00:23:29,750

politics chemistry they can pick but

203

00:23:34,510 --> 00:23:33,270

politics with a plan of reaction must

204

00:23:44,480 --> 00:23:34,520

finally save

205

00:23:48,020 --> 00:23:44,490

the kennedy space center the comrades-in-arms met

206

00:23:51,920 --> 00:23:48,030

the illustrated book and helpers magento

207

00:23:51,930 --> 00:24:25,900

[music]

208

00:24:39,970 --> 00:24:32,060

technology day co2 co2

209

00:24:42,340 --> 00:24:39,980

the construction is youtube generated

210

00:24:48,700 --> 00:24:42,350

politician caste reverse question here

211

00:25:06,360 --> 00:24:48,710

a sperm whale acetyl ballot paper cojones

212

00:25:06,370 --> 00:25:43,990

[music]

213

00:26:21,190 --> 00:25:49,100

suisse ceo animals how have to give aways

214

00:26:36,359 --> 00:26:32,960

outraged but at the ybbs chemistry with

215

00:26:48,789 --> 00:26:45,430

over number complete creation

216

00:27:08,159 --> 00:26:48,799

this simple reaction peter kersting man

217

00:27:15,869 --> 00:27:08,169

it belongs at the base page on the

218

00:27:19,839 --> 00:27:15,879

post it was dictated - because

219

00:27:24,509 --> 00:27:19,849

service mbh gns on places are also

220

00:27:28,749 --> 00:27:24,519

network kit everything is here is the pace

221

00:27:31,719 --> 00:27:28,759

pace templeton pek meanwhile it's at the

222

00:27:34,479 --> 00:27:31,729

point and can be used to waste now

223

00:27:39,999 --> 00:27:34,489

you're getting better but he's

224

00:27:48,070 --> 00:27:40,009

with her with soft compound comeback to

225

00:28:05,310 --> 00:27:48,080

the underground the base is a kind

226

00:28:17,399 --> 00:28:12,759

in front of his box question west africa

227

00:28:22,539 --> 00:28:17,409

this appears later in the fans

228

00:28:26,489 --> 00:28:22,549

even investigate the form of space ic

229

00:28:38,540 --> 00:28:26,499

on middle question of the former

230

00:28:47,750 --> 00:28:42,800

danuser breakdown further behind form out

231

00:28:52,430 --> 00:28:47,760

kevelaer of speed of position of

232

00:29:10,080 --> 00:28:52,440

cybertech west is further sees were

233

00:29:12,540 --> 00:29:10,090

released him experiment is the catfish

234

00:29:21,900 --> 00:29:12,550

have live show casting is the

235

00:29:28,440 --> 00:29:21,910

chinese star of the nba the work the

236

00:29:29,850 --> 00:29:28,450

idea is simple post.at networks in form

237

00:29:31,800 --> 00:29:29,860

is

238

00:29:36,780 --> 00:29:31,810

a post questions to death valley

239

00:29:44,130 --> 00:29:36,790

connection with less criticism on the

240

00:29:52,820 --> 00:29:44,140

part of side here in standby different

241

00:30:15,840 --> 00:30:12,900

skills in the north season is

242

00:30:24,150 --> 00:30:15,850

running and is the compound here the

243

00:30:28,560 --> 00:30:24,160

solid base or point is very high

244

00:30:33,780 --> 00:30:28,570

order page no make up and by major

245

00:30:36,450 --> 00:30:33,790

photo thomas josef kompalla and switch

246

00:30:42,690 --> 00:30:36,460

no feedback internet pages and plans

247

00:30:47,400 --> 00:30:42,700

better than yesterday here is the verdict

248

00:30:50,670 --> 00:30:47,410

of politics cep network can give back

249

00:30:53,300 --> 00:30:50,680

demanded to use again tomorrow loud you go

250

00:30:56,250 --> 00:30:53,310

right back to back to base page

251

00:30:58,890 --> 00:30:56,260

will regarding astra as well as

252

00:31:01,530 --> 00:30:58,900

hobby based enemy a hair or

253

00:31:04,410 --> 00:31:01,540

pattern memory the pattern eigenheimer

254

00:31:08,190 --> 00:31:04,420

cycle so gently on the skyline ridge

255

00:31:10,470 --> 00:31:08,200

forsythe expected enemy nave

256

00:31:15,950 --> 00:31:10,480

the enemy is not an appearance in the form

257

00:31:22,640 --> 00:31:15,960

of chemistry you the investigation into

258

00:31:25,890 --> 00:31:22,650

action networks reinhard the politics

259

00:31:29,220 --> 00:31:25,900

ready so the core is remaster be very

260

00:31:34,050 --> 00:31:29,230

very special chemistry in the respect

261

00:31:40,050 --> 00:31:34,060

is special features of the network is

262

00:31:42,090 --> 00:31:40,060

extreme ie last bankruptcy is formal reading

263

00:31:46,200 --> 00:31:42,100

to metabolic networks with politics I

264

00:31:48,990 --> 00:31:46,210

would say I know this chemical

265

00:32:10,320 --> 00:31:49,000

networks in bad salzungen deeper

266

00:32:10,330 --> 00:32:20,120

[music]

267

00:32:20,130 --> 00:32:44,740

on this comes here

268

00:32:51,670 --> 00:32:47,360

[music] if you have

269

00:32:57,920 --> 00:32:51,680

questions about checking in the network

270

00:32:59,960 --> 00:32:57,930

the cloud networks which makes it

271

00:33:04,310 --> 00:32:59,970

much easier haze arises

272

00:33:07,820 --> 00:33:04,320

the mix networks and can do i can do

273

00:33:09,049 --> 00:33:07,830

with the back to george clooney's 13

274

00:33:12,200 --> 00:33:09,059

question is now

275

00:33:15,230 --> 00:33:12,210

i know he the tv this action pants

276

00:33:20,840 --> 00:33:15,240

in reaction networks the question is

277

00:33:23,630 --> 00:33:20,850

skin or indirect vita so work to

278

00:33:30,049 --> 00:33:23,640

certain patterns is little but patterns

279

00:33:34,960 --> 00:33:30,059

kick in the base here again is on

280

00:33:42,280 --> 00:33:34,970

the advance project form statement so here

281

00:34:17,840 --> 00:33:46,700

interviews drills and inter that is if

282

00:34:24,260 --> 00:34:17,850

you is the autocrat networks dioxin

283

00:34:28,970 --> 00:34:24,270

acetone at fermentation of lukas if

284

00:34:33,850 --> 00:34:28,980

his work is known active grk politics cep

285

00:34:45,440 --> 00:34:33,860

network it is daily in autumn

286

00:35:13,760 --> 00:34:49,379

barry testing the we can williams

287

00:35:21,300 --> 00:35:18,530

that question what we have is usually

288

00:35:25,109 --> 00:35:21,310

action if we read beforehand quietly because

289

00:35:38,190 --> 00:35:25,119

we know the skepticism in the men

290

00:35:39,870 --> 00:35:38,200

cases you don't know how the quest does

291

00:36:15,170 --> 00:35:39,880

n't know just is half of it formally here

292

00:36:19,299 --> 00:36:15,180

from the industrial sector june kli

293

00:36:22,640 --> 00:36:19,309

we can do is because the know record

294

00:36:25,790 --> 00:36:22,650

projection events in the duck in berlin

295

00:36:27,530 --> 00:36:25,800

but reaction super illu information

296

00:36:31,430 --> 00:36:27,540

busy

297

00:36:35,780 --> 00:36:31,440

from this server reactions because recognizes

298

00:36:38,390 --> 00:36:35,790

backtrack the contract wants schmitt in

299

00:36:41,500 --> 00:36:38,400

the party to live and often fest

300

00:36:43,609 --> 00:36:41,510

die posse because we have

301

00:36:46,490 --> 00:36:43,619

context sensitive context dependent

302

00:36:49,430 --> 00:36:46,500

carolus here also but reaction

303

00:36:57,280 --> 00:36:49,440

applications the panton context in

304

00:37:00,770 --> 00:36:57,290

moritz definition der cattle dealer here

305

00:37:04,549 --> 00:37:00,780

workout combination 7 on the internet days

306

00:37:10,130 --> 00:37:04,559

and the game star are the x-men space

307

00:37:31,549 --> 00:37:10,140

here so five matches is compost on the

308

00:37:34,280 --> 00:37:31,559

tongue illustrative islam converts

309

00:37:38,270 --> 00:37:34,290

every hint the last ticket can

310

00:37:41,390 --> 00:37:38,280

whether you can do the exact quest because the man

311

00:37:46,630 --> 00:37:41,400

is a duo from the set of managers

312

00:37:49,460 --> 00:37:46,640

of the previous ones hello is half of

313

00:37:54,079 --> 00:37:49,470

directors the graphic was so lars

314

00:37:55,940 --> 00:37:54,089

reactions the production of the dewenter

315

00:37:58,039 --> 00:37:55,950

interest further production of tomorrow

316

00:38:00,260 --> 00:37:58,049

back in firm the rider knows the

317

00:38:12,069 --> 00:38:00,270

men who constructed the usa something in

318

00:38:20,590 --> 00:38:16,600

creation projects before

319

00:38:21,910 --> 00:38:20,600

projects of peace of the british who already

320

00:38:24,760 --> 00:38:21,920

before projects before

321

00:38:27,550 --> 00:38:24,770

do&co beer stays far cost and in

322

00:38:30,430 --> 00:38:27,560

combination because the falcon scott because

323

00:38:34,480 --> 00:38:30,440

surfing have position one where did

324

00:38:38,680 --> 00:38:34,490

this sequence was recognized fred rist ii

325

00:38:41,260 --> 00:38:38,690

action high up in indiana the ok the

326  
00:38:46,270 --> 00:38:41,270  
witches hesse appetizers sparkling wine how oh those

327  
00:38:50,320 --> 00:38:46,280  
were the two events next to first

328  
00:38:53,170 --> 00:38:50,330  
minister happened nbc the kidnapped

329  
00:39:07,600 --> 00:38:53,180  
had kuka and delivers like action and

330  
00:39:10,240 --> 00:39:07,610  
we have happened sequence dynamic circles

331  
00:39:21,390 --> 00:39:10,250  
borken pet and so the section patterns

332  
00:39:27,810 --> 00:39:21,400  
willi hebbel is but you have december

333  
00:39:37,120 --> 00:39:32,770  
while chemistry and currency effects

334  
00:39:39,070 --> 00:39:37,130  
withers aint nothing is the first

335  
00:39:44,200 --> 00:39:39,080  
have to know what you want to study

336  
00:39:47,980 --> 00:39:44,210  
wide there are mr tostedt reaction

337  
00:40:05,860 --> 00:39:47,990  
pattern yuan daily mobile phones change

338  
00:40:05,870 --> 00:41:13,510

[applause]

339

00:41:13,520 --> 00:41:28,390

information

340

00:41:28,400 --> 00:42:13,990

the transformation in its element

341

00:42:14,000 --> 00:43:04,710

but then comes

342

00:43:04,720 --> 00:43:16,039

[music]

343

00:46:38,000 --> 00:43:29,609

this instinct manager mino es mosley

344

00:49:05,510 --> 00:47:11,880

the euroleague west of the 3rd to rent in

345

00:49:05,520 --> 00:49:28,670

[music]

346

00:49:28,680 --> 00:49:40,480

surf is free

347

00:49:47,430 --> 00:49:43,040

[music]

348

00:50:09,110 --> 00:49:47,440

so became extra you eat you need to

349

00:50:09,120 --> 00:50:33,590

[music]

350

00:52:48,310 --> 00:50:42,590

can do simulation here lay the immoderate

351

00:52:48,320 --> 00:54:20,730

[music]

352

00:54:34,990 --> 00:54:30,940

so solutions network so will where i

353

00:54:52,200 --> 00:54:35,000

have then is the health study house djs

354

00:54:52,210 --> 00:55:20,630

strange information is