



Processor Verification – Twitter Chat October 28, 2013 #SoC

Introduction

Transcript from Twitter Chat conducted at 12 Noon EST on October 28, 2013. Hash tag is #SoC.

Participants

@DevOps, @NielsEngelen, @erocksindia, @Teraptor, @muralibulusu, @vasanth_vaidya, @GopiBulusu

Twitter Transcript

The Twitter chat was hosted by @vasanth_vaidya with @GopiBulusu as the main guest.

Vasanth Vaidyanathan @vasanth_vaidya
All questions are denoted by Qn and corresponding answers are indicated by An #soc @GopiBulusu

Vasanth Vaidyanathan @vasanth_vaidya
@GopiBulusu Q1: What is an #SoC? #processor #verification #agile
Gopi Bulusu @GopiBulusu

@vasanth_vaidya A1: A system on chip or an #SoC is a very large scale integrated circuit chip that contains all functions of a system #SoC

Vasanth Vaidyanathan @vasanth_vaidya
@GopiBulusu Now, let us go to Q2: What is #ASDM #SoC Would you be able to explain this?
Gopi Bulusu @GopiBulusu

@teraptor a2: #ASDM brings twin benefits of agile development process and System Design Automation #SDA to #SoC development

Gopi Bulusu @GopiBulusu
@vasanth_vaidya a2: #SoC design starts with market demand for systems (consumer electronics) #Agile System Development with Models #ASDM

Vasanth Vaidyanathan @vasanth_vaidya
@GopiBulusu Q3: Why are #MAS skills important ? #SoC #agile #processor #sda #eda #system #design

#[embedded](#) #ASDM

Gopi Bulusu @GopiBulusu

A31: #[MAS](#) or Modelling Abstraction and Synthesis skills are essential for developing complex systems in general and #[SoC](#) with #[SDA](#) and #ASDM

Vasanth Vaidyanathan @vasanth_vaidya

@[GopiBulusu](#) Q4: Curious, how is SoC different from a Processor #[SoC](#) ? Could you explain? #[agile](#) #[processor](#) #[verification](#) #[design](#) #[eda](#) #[sda](#)

Gopi Bulusu @GopiBulusu

A4: An #[SoC](#) may include application, audio, video processors - communication peripherals, memory subsystem in a network #[NoC](#)

Vasanth Vaidyanathan @vasanth_vaidya

@[GopiBulusu](#) Q5: What is the challenge in verifying a processor? #[SoC](#) #[ProcessorVerification](#) #[agile](#) #[ASDM](#) #[MAS](#) #[eda](#) #[sda](#)Vasanth Vaidyanathan @vasanth_vaidya

Gopi Bulusu @GopiBulusu

A5: A 5-stage pipeline 32 bit processor can take $2^{32} \times 5$ different inputs and states a very large number to test ! #[SoC](#) #[SDA](#) #ASDM

Vasanth Vaidyanathan @vasanth_vaidya

@[GopiBulusu](#) Q6: How does constrained random testing help #[SoC](#) #[ProcessorVerification](#) #[agile](#) #[sda](#) #[eda](#) #[design](#)

Gopi Bulusu @GopiBulusu

A6: constraints allow the overall test space to be brought down to manageable size, randomness gives uniformity in test space coverage #[SoC](#)

Vasanth Vaidyanathan @vasanth_vaidya

@[GopiBulusu](#) Q7: What is Test Synthesis #[SoC](#) #[ProcessorVerification](#) #[design](#) #[eda](#) @[sda](#) #[embedded](#) #[asdm](#) #[modeling](#)

Gopi Bulusu @GopiBulusu

A7: an #[SMDL](#) processor model can be used to synthesise tests and results using Teraptor Explorer for processor verification #[SoC](#)

Vasanth Vaidyanathan @vasanth_vaidya

@[GopiBulusu](#) Q8: How do I learn more about #[ProcessorVerification](#)? #[SoC](#) #[agile](#) #[embedded](#) #[sda](#) #[eda](#)
Gopi Bulusu @GopiBulusu

@A8: Checkout <http://www.sankhya.com/info/products/teraptor/verify.html#page=page-7...> ; or attend an

upcoming #ASDM event http://www.hamara.in/asdm_tutorial/oct2013/index.html ... #SoC
#ProcessorVerification

Vasanth Vaidyanathan @vasanth_vaidya
@GopiBulusu Super! Thank you so much for taking the time to chat. #SoC #agile #embedded #system #design
#processor #verification

Gopi Bulusu @GopiBulusu
@vasanth_vaidya @teraptor it was cool, thanks for hosting - look forward to future #SoC chats

For more information

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