AS0: actor, CQ0: irrelevant actors (t3)

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| 0:10:55.2  PERSON 1 | Maybe developers | **[4 actor (AS0)]** Development team is an actor |
| 0:11:00.8  PERSON 2 | Development team, I don’t know. Because that’s- in this context it looks like she’s gonna make the software | **[5 critical question CQ0 for 4]** Is actor "development team" relevant?  **[6 answer to 5]** No, it looks like the professor will develop the software. |

AS1: resources (t3), AS8: resource contributes to task

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| 0:19:08.6  PERSON 3 | Should have a link with an outsource program for the statistical distribution [inaudible] | **[21 resource (AS1)]** Actor System has resource "Statistics library" |
| 0:35:27.4  PERSON 3 | Maybe before traffic simulation view you can- the outsource package that makes the map | **[38 contribution (AS8)]** Resource "Statistics library" contributes to task "Display traffic simulation" |
| 0:35:45.8  PERSON 3 | But here it’s going to make the [inaudible] come, like for example, if three cars come from here at speed of three times, three cars per minute |  |
| 0:35:54.9  PERSON 3 | And then, so this, another package is gonna make the count, and show on the green [inaudible] |  |

AS2, CQ2, CQ: useful/redundant (t1)

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| 0:15:11.2  PERSON 1 | And then, we have a set of actions. Save map, open map, add and remove intersection, roads | **[20 task (AS2)]** Student has tasks "save map", "open map", "add intersection", "add road", "add traffic light", "remove intersection" |
| 0:15:34.7  PERSON 2 | Yeah, road. Intersection, add traffic lights |  |
| 0:15:42.3  PERSON 1 | Well, all intersection should have traffic lights so it’s | **[21 critical question CQ?? for 20]** "Is the task "Add traffic light" useful/redundant?  **[22 answer to 22]** Not useful, because according to the specification all intersections have traffic lights.  **[22a remove task]** Add traffic light |

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| 0:15:52.3  PERSON 1 | An intersection there is always gonna be a traffic light because it’s a constraint of the system. Alright. And on the technical side it’s gonna be a real pain to remove one intersection you’re gonna have to remove a lot more because there are only four-ways allowed and if you remove one intersection then- | **[23 critical question CQ2 for 20]** Is the task "Remove intersection" possible?  **[24 answer to 22]** It is going to be very difficult to implement.  **[24a remove task]** Remove intersection |

AS2, CQ: specify/clarification (t1)

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| 0:23:20.4  PERSON 1 | So, sets, yeah, car influx | **[32 task (AS2)]** Student has task "car influx" |
| 0:23:41.2  PERSON 2 | (..) If you can only control the set amount of influx from any side of this sort of random distribution, I think that is going to be less interesting than when you can say something like, this road is frequently traveled. we kind of want to keep this simple but I think if you make it completely random then it’s too simple, not useful. So setting it per road, I think is something we want | **[33 critical question CQ?? on 36]** Is the task description specific/clear enough?  **[34 answer to 37]** No, it is not clear where the influx is changing. Change to "control car influx per road" |

AS3 (goal), AS5 (contribution) (t2)

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| 0:39:51.0  PERSON 3 | And, it would display it. Start the simulation and then it should display it in real-time | **[47 task (AS2)]** Simulator has task "Display simulation in GUI"  **[48 goal (AS3)]** Simulator has goal "Provide real-time feedback"  [49 contribution (AS5)] task "display simulation in GUI" contributes to "provide real-time feedback" |

AS4 (softgoal), AS6 (contribution) (t2)

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| 0:13:30.7  PERSON 3 | Because this is a particular challenging subject for the student |  |
| 0:13:32.9  PERSON 1 | For practice | [**10 softgoal (AS4)]** Student has softgoal "Learn queuing theory from practice"  **[11 contribution (AS6)]** Task "use simulator" contributes to softgoal "learn queing theory from practice" |
| 0:13:33.9  PERSON 3 | Yeah. It’s just for their purpose, so I think environment is just, UCI course, whatever. |  |

AS7 (t3)

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| 0:14:31.2  PERSON 1 | Let’s see- she uses the system in her course to explain her lectures about traffic problem thing | **[11 softgoal (AS4)]** "Explain lectures traffic theory" is a softgoal of Professor  **[12 goal (AS5)]** Professor has goal "Use traffic light system in course"  **[13 contribution (AS7)]** Goal "use traffic light system in course" contributes postively to softgoal "explain lectures traffic theory" |
| 0:14:40.8  PERSON 2 | Oh, so it’s additional to her lecture too. Explain the topic better. Oh yeah, that’s true because the topic was too abstract or something |  |

AS2, AS: task decomposition (t2)

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| 0:29:59.5  PERSON 3 | Ok so traffic light behavior you would specify it- it is up to you to determine what the exact interaction will be, but a variety of sequences and timing schemes should be allowed. So, you would have- we would have traffic light behavior gives you, I guess two options then. | **[42 task (AS2)]** Student has task "set sequence scheme"  **[43 task (AS2)]** Student has task "set timing scheme"  **[44 decomposition (AS??)]** Task "set traffic light behavior" XOR-decomposes into "set sequence scheme" and "set timing scheme" |
| 0:30:23.6  PERSON 1 | Sequences and timing schemes |
| 0:30:25.0  PERSON 3 | Sequences and timing schemes. So you can either go for, yeah, sequences- |
| 0:30:30.9  PERSON 1 | Or timing schemes |

AS9 (t3)

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| 0:41:41.9  PERSON 3 | I think it’s a module that’s going to be activated after you’ve designed the map. For example, you design the map and now you’re in the simulation process. It’s before the simulation process. | **[40 dependency (AS?)]** "Provide initial input" depends on "Checking light behavior" |
| 0:41:57.6  PERSON 3 | Ok, we forgot to create these dependencies |
| 0:41:57.0  PERSON 1 | Ok |
| 0:41:57.6  PERSON 3 | Ok, we forgot to create these dependencies |

AS11: negative contribution (t1)

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| 0:06:29.3  PERSON 2 | So, is that a trade-off. I think so. |  |
| 0:06:36.0  PERSON 1 | Yeah, performance versus, I don’t know, functionality. Like, what you say, cars come out at the end of the map side [are generated randomly] is performance wise and, I don’t know, easier to make but it is less functional. Because you can’t see traffic flows that easy because, well there’s fixed amount of cars so there’s not really gonna be jams [the simulation is less dynamic]. Is there around Utrecht always the same amount of cars? | [10 negative contribution (AS11)] task "generate cars randomly" contributes negatively to softgoal "dynamic simulation" |

AS\*: general topic (t1)

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| 0:00:10.2  PERSON 1 | So, yeah [pause] I would start with something about the context. That we have to determine who the users of the system are gonna be, stakeholders. | **[1 issue]** What are the actors? |

CQ: task decomposition (t2)

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| 0:49:05.3  PERSON 3 | So, density, speed and, is there anything else. | **[68 critical question for 63c]** Does "set road characteristics" decompose into any other tasks?  **[69 anwer to 68]** Yes, type of cars.  **[69a task (AS2)]** Student has task "set type of cars"  **[69b decomposition (AS??)]** Task "set road characteristics" decomposes into "set type of cars" |
| 0:49:09.7  PERSON 1 | No, speed, density |
| 0:49:20.1  PERSON 3 | Maybe type of cars |
| 0:49:21.5  PERSON 1 | Yeah |
| 0:49:22.0  PERSON 3 | Type of cars, because you could have trucks, you could have personal cars. That would be good because- |

CQ: decompostion correct? (t3)

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| 0:30:10.3  PERSON 1 | Yeah. But this is- is this an OR or an AND | **[26 critical question CQ? for 20]** Are tasks "Static simulation" and "Dynamic Simulation" incompatible?  **[27 answer to 26]** No, it should be an AND because the system can do both.  **[27a decomposition (AS?)]** Goal "simulate" AND-decomposes into "Static simulation" and "dynamic simulation" |
| 0:30:12.6  PERSON 2 | That’s and OR |
| 0:30:14.3  PERSON 3 | I think it’s an OR |
| 0:30:15.4  PERSON 1 | It’s for the data, it’s an OR |
| 0:30:18.1  PERSON 3 | Yep |
| 0:30:18.4  PERSON 1 | And for the system it’s an AND |
| 0:30:20.8  PERSON 2 | Ok |
| 0:30:22.0  PERSON 1 | I think |
| 0:30:22.5  PERSON 2 | Yeah? |
| 0:30:23.2  PERSON 1 | Yeah, because you have some input, and then that’s- |
| 0:30:29.3  PERSON 2 | Yeah, but didn’t |
| 0:30:29.5  PERSON 1 | Static manner or dynamic. But the system can do both |

CQ: Generic counterargument

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| 0:10:55.2  PERSON 1 | Maybe developers or | **[4 actor (AS0)]** Development team is an actor |
| 0:11:00.8  PERSON 2 | Development team, I don’t know. Because that’s- in this context it looks like she’s gonna make the software | **[5 critical question CQ0 for 4]** Is actor "development team" relevant?  **[6 answer to 5]** No, it looks like the professor will develop the softgoal. |
| .. | .. | **..** |
| 0:18:13.4  PERSON 2 | I think we can still do developers here. To the system | **[16 counter argument for 6]** According to the specification the professor doesn't actually develop the software. |
| 0:18:22.9  PERSON 1 | Yeah, when the system gets stuck they also have to be [inaudible] ok. So development team |