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|  | **Timespan** | **Content** |
| 1 | 0:00.0 - 0:10.4 | P1: Male, P2: Male, P3: Male  ================================================  P2: this is recording of group 12. |
| 2 | 0:10.4 - 0:51.7 | P1: lets start, lets start talking about the context stuff of the  P2: context view point,  P1: the context view point the relations.  P3: yes  P1: so we have different lets first talk about stake holder I think,  P3: yeah.  P1: what I already thought is the lecturer,  P2: yes. professor E,  P1: students who need to use it and the development team who need who's gonna developing.  P3: yes. |
| 3 | 0:51.7 - 1:08.6 | P2: I don't think the development team is really a stakeholder in the context of the system.  P1: for the context view point.  P2: no.  P1: yeah but lest first talk about the context and then we go to the context viewpoint.  P2: yes alright |
| 4 | 1:08.6 - 1:14.3 | P1: so this is just more over all global thing. |
| 5 | 1:14.3 - 2:10.9 | P1: okay. so we have those,  P3: any more I think not mentioned at least in the text.  P2: no, I don't think there are anymore stakeholders.  P1: me neither. I think that different views should be for different stakeholders,  P2: yeah.  P1: so do we want to discuss now which view for which stakeholders to,  P2: yeah we can do that. okay. I do think that professor E is the client I'm not sure whether the client are really em. the students should be address in the one of the views. perhaps the user interface if we make user interface view or something like that and we can address the students. |
| 6 | 2:10.9 - 2:19.8 | P2: in agile way, so we can interactly flee the develop the user interface,  P1: okay |
| 7 | 2:19.8 - 2:33.8 | P1: I think most of the thing are for the developers, functional definitely, functional, yeah, context and the information is all the three we gonna. |
| 8 | 2:33.8 - 2:40.8 | P2: so if we look at the context view point what views should be develop there |
| 9 | 2:40.8 - 2:57.9 | P3: context diagram.  P2: yes,  P3: or also maybe context. informal context diagram and there also interaction scenarios, which we can make |
| 10 | 2:57.9 - 3:13.4 | P2: yeah. okay. so lets make context diagram and then interaction,  P3: yes  P2: what does it called .  P3: yeah. interaction scenario.  P2: yeah right.  P3: or sequence diagram I believe |
| 11 | 3:13.4 - 3:24.2 | P2: okay, so lets start with context diagram, should we include the cards as well  P3: I think so, at least.  P1: yeah we can.  P2: so then I play the context card. |
| 12 | 3:24.2 - 3:49.6 | P1: should we now look at the.  P2: yes at three minutes thirty and Person 1 played context card. if we just say at loud we can also, wait I thought we could re listen the recording .  P1: that's a lot of work lets not do that. |
| 13 | 3:49.6 - 4:28.5 | P2: so . the context.  (reading).  P2: I'm not really clear what's we should talk about now with the cards being played.  P3: there is more roles increment in the context of the design. so there are couple requirements,  P1: what's the context, what's are the system in which it working with.  P3: yeah.  P1: and the user is the context. everything that cooperate with this system. |
| 14 | 4:28.5 - 4:37.5 | P3: so I think we could start with making the box which we presents the system and then start drawing some lines.  P2: yes of course.  P3: beginning with the . |
| 15 | 4:37.6 - 4:52.9 | P2: so we called TSA traffic simulation assignment, so . all that still cover TSA. |
| 16 | 4:52.9 - 5:07.5 | P2: so in the traffic simulator we have.  P3: students of course.  P2: students. |
| 17 | 5:07.5 - 5:40.9 | P3: and then you have your internal and external systems.  P2: lets we start with professor.  P1: we need to make an assumption that is in the Netherlands, because traffic always every where different  P3: play your assumption card then.  P1: we could do that. I don't know how this works.  P2: very well.  P1: I make assumption. Lody play the assumption card five minute thirty. |
| 18 | 5:40.9 - 5:58.3 | P2: so the assumption that it will be, the traffic simulator will be target that in Netherland. and the Dutch traffic system. so we can put that in the context diagram as well I think. some how.  P1: yeah. |
| 19 | 5:58.3 - 6:18.9 | P2: I'm not sure how yet but.  P1: context are rules. traffic rules are context. so we can make like a cloud thing with the business rules like you have business rules that can be dynamically you can make traffic rules. country dependent. |
| 20 | 6:18.9 - 6:39.4 | P3: because if you make the assumption that which is based in Holland then is also a constraint because your limit your self to the Dutch driving laws.  P1: yeah. that's a constraint in rules.  P3: yes okay. |
| 21 | 6:39.4 - 7:05.4 | P2: yes so. there's a trade off there. because you can either chose to make it generic and make the rule set for region pop able so you can do region for Germany and for Holland and for many other regions. or you can chose to just limit your self to the Netherlands and that's it. |
| 22 | 7:05.4 - 7:10.7 | P2: so the trade off being that make it modulear will be more expensive |
| 23 | 7:10.7 - 7:50.5 | (writing).  P2: so what we chose here.  P3: I think we only make it for Holland because the professor give it to students as being .  P2: if we read the assignment is said that UCI so I think.  P3: Utrecht school.  P2: no I think that's a . I don't know. I think it's American university.  P3: ah okay.  P2: so I think we should. |
| 24 | 7:50.5 - 8:21.0 | P2: it's the university of California Irvine. so I think we should deliver our self in to the united states then.  P1: yeah okay.  P3: good one  P1: fair enough  P2: being a primarily for a course at UCI, in the first version I think is efficient to make it specific for the united states .  P3: yes.  P2: and then later version you can always make it pop able. |
| 25 | 8:21.0 - 8:32.8 | P1: I already think about it. that it could be program it that the rules should be loosely the coupled.  P2: yeah we can take that into account.  P3: okay |
| 26 | 8:32.8 - 8:48.2 | P2: okay. so we can remove some cards from table now I think. because we have resolved this assumption, and constraint and .  P1: all of them I think at the same time.  P2: yes  P1: I think eight forty five. |
| 27 | 8:48.2 - 9:01.4 | P2: okay. so are there any other assumption we're making. |
| 28 | 9:01.4 - 9:34.9 | (reading)  P1: language of the. user language is also the same like for the traffic rules it's will be American English.  P2: yeah lets just stick with American English and no localization here yet.  P1: yeah |
| 29 | 9:34.9 - 10:09.6 | P2: also I think that. I have something in mind. alright. the . how the application will be deployed. we can make some assumption about that. so we can either make desktop application that you have to install with that perhaps some old fashion and very problematic if some people have mac and some people have windows. then you have to go through all problem do java application.  P3: so this a problem?.  P1: like web application |
| 30 | 10:09.6 - 10:27.7 | P2: so I think we should make web application. because in app you have same problem with different platforms. so lets make the assumption that we will make our solution I think.  P1: I think it's the solution.  P3: solution to a problem. |
| 31 | 10:27.7 - 10:36.7 | P1: so did Person 1 play the solution cards.  P2: yes I played the problem and solution card.  P1: oh wait solution is. and problem both at the same time . |
| 32 | 10:36.7 - 10:42.4 | P3: first we have the problem.  P1: you stated the problem and the solution in one sentences. |
| 33 | 10:42.4 - 11:01.8 | P2: I first stated the problem which platform should be use and then the solution was to use the web application because the most.  P1: at ten minute Person 1 played the solution card then minute thirty seconds he stated the solution |
| 34 | 11:01.3 - 11:16.4 | P2: so in the context diagram we should include something like a web application thing or webserver.  P1: webserver or just what I don’t now how is.  P3: yeah |
| 35 | 11:16.4 - 12:10.1 | P1: so it's on the a webserver. It's  P2: in browsers  P1: or browsers.  P2: I am not sure whether you should included in the context diagram that.  P1: what that no any different?  P3: maybe.  P2: yeah it's deployment unit.  P1: but this web browser is something the context.  P2: yeah any way one of this. ok do we have anymore.  P1: do you want the teacher that also to let it see whether the students maybe is not for a teacher that he can see which student who use it and lets serious for accept applicant long in. |
| 36 | 12:05.1 - 12:48.5 | P3: yeah I was thinking about it we can.  P1: so he can see what the students did in the application or not.  P2: yeah we can do that and however in the assignment nothing is mentioned about these things.  P1: so I would be in the.  P2: there would be an extra teacher and the teacher will be very nice I think and I think it would also work if we would not implemented it.  P1: what what do you say?  P2: I think that application just will work if you don't make log in system  P1: so we don’t like.  P2: I well I vote for no. what Rolland would say.  P3: yeah ok with that.  P2: Lody is you okay with that  P3: lets first focus on the main future the system that.  P1: yeah ok.  P3: it was a good one.  P2:do you agree with that Lody or do you still prefer to include that?  P1: I really hate card games. confusing all that. I want play the joker |
| 37 | 13:18.3 - 14:52.5 | P2: so where are we in the.  P3: context view.  P1: ok this is the context diagram and the information.  P2: we should address the question later as well. and perhaps we did that in the (inaudible) but we haven't record any risk I think yet. so if we look back at the assumptions make and the constraint can we relate any risk to those.  P1: yeah but that's quite general but if you make the implement wrong the rules the risk is that the whole application does not.  P3: useless.  P3: is useless because.  P2: we what?  P1: if we implement the wrong business rules it will be avoid a traffic response for how the traffic rules are we are and then the whole application is useless and this is I think the biggest risk.  P2: ya.  P1: there is possible  P2: so wrong business rules of traffic light rules  P3: yeah.  P1: so I played the context cards together with the risk cards at fourteen minutes and thirty seconds. |
| 38 | 14:52.4 - 15:44.3 | P2: what wait can cause that design problem.  P1: well design problem  P2: I think we should make those rules very modulear so you can easily swap without other rules and that there not entangle in the rest of system so if you make a mistake you can easily fix it.  P3: yes.  P2: so that's very  P1: so we loose coupled  P2: yeah we mentioned that before.  P1: what do you do we want like a lecturer can change this or the developers can change who should be the authority and the context that can change this. |
| 39 | 15:44.3 - 16:22.5 | P2: Ideally you make the system somewhere that professor can make rules himself that I think it might be very  P1: can add rules, like make the base  P3: base where you can  P2: so we should look into that if that possible if you can make the rules set dynamic and so professor can make it at his own rules and constraints to the traffic light simulator. so we have to looking into that in the functional view.  P1: in someway also the students need. no the students don’t change the rules of the traffic ok yeah. |
| 40 | 16:22.5 - 16:35.0 | P2: okay. so solution for this problem would be to make the traffic rules dynamic and editable by end user being the professor. |
| 41 | 16:39.4 - 16:58.9 | P2: ok. we are at fifteen minutes past fifteen minutes by the way. so perhaps we should reflect on the card we play.  P1: yeah. |
| 42 | 16:58.8 - 17:17.8 | P1: officially only the risk card now at the table.  P2: no. you're right.  P1: the context cards and which we are discussing maybe solution for. |
| 43 | 17:17.8 - 19:03.8 | P2: where we should reflect on our design decisions. so what design decisions that we make.  P1: we start with context and card.  P2: yes so with assumption that.  P1: we make constraints and the t stand for trade off. the constraint is region country was it and the trade off would be well there is.  P3: that is it possible to use for other country as well.  P2: yeah  P1: yeah and but it a lope to implement so we chose to not do it. then Person 1 play the problem card and immediately followed up the solution the problem was that if you make it that desktop application that would be a different thing which student can use like a MacBook or windows platform. so he said as a solution at ten forty five to make a web application and then we start with the context card again and we I saw a risk and the risk was.  P2: the business rules being wrong.  P1: yeah.  P3: wrong implement and then the system was useless. yes  P1: that's the biggest risk. |
| 44 | 19:03.8 - 19:20.6 | P3: ok. so about the context diagram.  P1: I think that's it for the context diagram. or should  P3: are there any internal system.  P2: we have the business rules perhaps that we can. oh wait that's right here.  P3: and that's an internal system on the top I think. |
| 45 | 19:20.5 - 19:49.9 | P3: this business rules on this case traffic rules.  P1: there are something external.  P2: so we can draw a line from the professor to the traffic rules so that he can edit.  P3: edit  P2: but that's inside the system that is not external so that should not be  P1: yeah you have two different things. we have the traffic rules which are the environment of the real  P2: yeah right  P1: and you have it in the system.  P2: there is no line. yeah. |
| 46 | 19:49.8 - 20:38.6 | P2: ok.  P3: ok. and then we also have the database right?  P2: well it depends.  P3: because it was a web application right?  P2: well do we need the database?  P3: database. what  P2: do we need a database?  P3: I don't know how do you model that.  P1: that depends whether we didn't want to implement things that is look about student use it or something so if there doesn't I don't think database  P2: you can also store a lot of thing in the browser. so like when the user draws map and he changes the traffic light parameters. can. we can store that in web. browser.  P3: yeah  P2: for example |
| 47 | 20:38.5 - 21:01.3 | P1: like some sort of cookies you mean.  P2: yeah it's a local storage. but the rules need to come from somewhere.  P1: yeah those can be should be changed. those can be in an external data.  P3: yeah that was what I meant so those whole system has to be runned from.  P2: so we have an external database.  P3: external database. like that. |
| 48 | 21:01.3 - 22:38.0 | P2: we would not need that if we don't make the business rules configurable.  P1: is that so. so it's professor want?  P2: we can hardcode that in the code and developer can change them.  P3: but the program itself was to be run from somewhere, right?  P2: yeah that's the web server.  P3: yeah the webserver ok and do we need external system like a I don't know java or something.  P2: well it depends on what platform we will choose. but I think that is outside the scope of the context diagram.  P3: ok.  P1: but one last thing. the external database this are for all rules are stored  P2: yeah  P1: or using it. but if imagine that lecturer wants to change at some rules and he has his own little profile as he can saves his own rules. should he do in the database also or is that the thing you want to. because all the students who or students who want to use the system from different occasions also need to use those rules from this lecture so they should be used in external database. so I think the lecturer should have a connection.  P2: external database is something only the application use this. and every operation that should we done on the data which manipulates some pieces information that is in the database. is handled by the application. so every interaction the professor does to manipulate data goes to the TSA so. |
| 49 | 22:37.9 - 23:02.5 | P3: so basically we are making the trade off. about the configurability and maintainability maybe and I think that's a constraint we need to think about because how often is she gonna change the rules because if it's once a year. all the extra work of making such does it say anything on that in the assignment? |
| 50 | 23:02.5 - 23:24.8 | P2: no, doesn't say anything about that. but what trade off are you exactly.  P3: well the trade off being that the professor itself can make the changes quite easy or that if it doesn't has to be done often. maybe we don't have to consider it at all. |
| 51 | 23:24.7 - 24:28.7 | P2: right. so the question is. do we want to make them figurable or not  P3: yes. or not. that's a trade off  P1: I would suggest yes. because the chance that you do that we implement something wrong is quite big in the first time and then we need the version with feedback from the lecture to make it to maintain it and if you do this way if this way you need so much less maintain that almost.  P3: so. you make an assumption that we don't implement. right. that's.  P1: you know what I.  P2: I know what you mean. I am not sure if I agree. the question is how much work is it to make it configurable up front and those it out weight that cost of updating the rules based on the feedback from the teacher afterwards  P3: yes there was. |
| 52 | 24:28.6 - 25:20.8 | P2: and I think the amount of complexity that's you add to the application to make everything configurable.  P1: which is your expertise.  P2: yeah perhaps  P3: and it's stays of course in how do say it. it's application for  P2: for students  P3: for students for them to see how it's work. I think it's not that we actually implementing a real traffic system so.  P2: I think we can add such a layer on top of it. later on.  P1: okay  P2: so I think we should take into account that later on we would make an editor for such business rules and take into account in the way we structure our code and then. |
| 53 | 25:20.8 - 25:52.5 | P3: ok so lets move on.  P1: so we know close the context diagram.  P3: I think so yes.  P2: so I draw rectangle  P1: and then we have this scenario or what this one.  P3: we can make.  P1: this how you used but it is really.  P3: necessary.  P1: no what appropriate to do make one?  P2: I think we can make it very rough sketch from interaction diagram. it's very simple.  P1: ok  P3: yeah. |
| 54 | 25:52.5 - 26:11.4 | P2: and so (inaudible).  P3: it's basically not stated here in the book I'm not within concrete example but maybe chapter 10. here it this right. action sequence diagram. I think I believe. |
| 55 | 26:11.3 - 26:48.1 | P2: yeah.  P1: yeah we make UML.  P3: then we should focus on interesting scenario.  P1: the student I think he needs to he opens the application to the students.  P3: yeah. but what are we gonna.  P2: I think we just sketching a very rough a flow to user to the application.  P3: but what is he gonna do to the user what is his activity.  P2: yeah exactly. that's we gonna explore.  P3: ok |
| 56 | 26:48.1 - 27:54.8 | P2: so he opens the application and then. well.  P3: does he have to log in or not?  P1: no. we chose to not do that, right?  P2: I think he should be able to create a map of the area.  P3: yes it's true.  P2: and that's consist to various steps.  P3: yap so.  P1: and then he can apply also one that is created I should I think you also mean it's not only the map of the roads but also the map of the traffic. different traffic lights which we are in it.  P2: yap.  P1: and then he can adjust the  P3: speed  P1: no. all the rules of traffic and the traffic lights. yeah you have parameter in more general traffic parameters and traffic light parameters.  P2: ya.  P1: so those are two main things which the students.  P2: the traffic parameters are part of this simulation I think we will consider that later on.  P1: that's a real life, right  P2: that's simulation  P1: or that's real time. |
| 57 | 27:54.7 - 28:20.3 | P2: ya. so the map that consists of  P3: road.  P2: or first creating road  P3: intersection. creating roads of varying length.  P2: and then.  P3: and then intersection.  P2: yes intersection. |
| 58 | 28:20.2 - 29:04.0 | P3: user creates a map. set traffic timing schemes. use traffic simulations ok basic.  P2: so has to place the traffic light from the map I think.  P3: students must be able to create visual map of an area and the result to map need not to be complex allowing roads of varying length and different arrangement of intersection to be created and accommodate at least six interactions of intersection, right? |
| 59 | 29:03.9 - 29:49.7 | P2: yes. intersection so lets more or less some kind templates.  P1: you also need to design if whether each intersection has the sensor or not.  P2: but I think it just property of traffic lights.  P3: yeah.  P2: it design time but that property of the traffic light I guess. but that's perhaps a bit do the details and lets first capture global steps.  P1: and this close any at ok this one traffic light.  P2: so you open application and create a map that consists of placing roads of intersection and placing traffic lights and configuring traffic lights.  P3: yeah |
| 60 | 29:49.7 - 29:57.8 | P1: with the standard rules or what do you mean by figuring? |
| 61 | 29:57.8 - 31:22.0 | P2: well whether that the traffic light has a an optic sensor or not what are the timing scheme is or the.  P1: but do we want that to be possible to change. the first step is she opens it and it's creation of the map and of that you can have run the run. you can run the map and you can also say ok while running I want to changes also the parameter or traffic light which also all the sensor but also time and traffic distribution.  P2: so you mean whether the student should be able to figure the traffic light himself or whether we have predefine traffic lights that we place.  P1: when he is creating on the map those do you want to change parameters of traffic light in the run time or in the creation of the map.  P2: in the creation of the map.  P1: but then if the goal of the application is to simulated it. it will be nice if he can change in the run time or you want to run it every time.  P2: you should look at point four in the description and that part is about the simulation I think.  (reading) |
| 62 | 31:21.9 - 32:36.6 | P3: students should be able to observe any problems with their map timing scheme alter it or  (reading)  P3: problem is not meant to be exact scientific.  P2: so your question is whether we should also in cooperate the possibility to change it at current time?  P1: yeah. it doesn't say something about you can alter it and run it again or you can alter it while it's running.  P3: do we need to know that.  P2: I think we should be able to figure it at design time of the map at in case.  P1: yeah but does like a default. yeah okay. but it will be nice imagine you are simulating it and you have like old car coming and you see. this is going pretty well well lets just add a few more (factors) to this traffic light while it's running and then you see maybe see the result of it I think it's more. this teaches the student more when he has to run the simulation so I think this is fourth thing do it to have the functionality in both.  P2: yeah I agree. |
| 63 | 32:36.6 - 32:46.6 | P2: are there more steps in hold of creating the map? |
| 64 | 32:46.6 - 33:13.7 | P1: you can maybe save or load the map or export it to as a pdf or something like that the student goods.  P2: ya so after opening the application you can edit creating new map or load existing map and then after creating map you can. export  P1: ya export it we will talk about it. the functionality. |
| 65 | 33:13.6 - 33:24.5 | P1: and we can also run we should run that application run the simulation.  P2: run the simulation. yeah |
| 66 | 33:24.5 - 33:46.4 | P2: I think they should only capture the high level of flow a user through the application I think it's in context viewpoint yeah so  P1: and then exit the application or something.  P2: yeah |
| 67 | 33:46.4 - 34:11.5 | P2: alright so that all interaction scenario.  P1: then I think we did the context part of this system.  P3: context part. how many minutes are we?  P2: thirty four minutes.  P3: thirty four about ten minutes don't we have to.  P2: yeah |
| 68 | 34:11.5 - 35:21.2 | P2: right on.  P1: ok. ya that's just first brainstorm a little about what functions that should hold.  P2: yeah I agree. obviously a map editor.  P3: traffic editor or that was in map editor  P2: all the traffic and parameters.  P3: yes the busyness  P1: you have traffic parameters and you have traffic light parameters. those should be two different things and I think those all the only things the student can changes after creating the map.  P2: yeah.  P1: so those are the parameters. traffic lights and traffic rules or traffic light and traffic distribution or something.  P2: so this is more less the simulation parameters.  P3: yeah.  P2: to make it more clear. |
| 69 | 35:21.2 - 35:45.7 | P2: traffic lights parameter is a part of map editor I think.  P1: that doesn't really matter because we have them both you can say it is in default and then you are saying develop default parameter but then you can change it in running time.  P2: yeah |
| 70 | 35:45.7 - 36:05.1 | P2: right do we have.  P1: lets say everything we just say in the map parameter.  P2: import export. ok. |
| 71 | 36:05.1 - 36:22.4 | P1: run it .  (writing/drawing)  P2: you're right.  P1: we want have something like this play it as functionality or how do we.  P2: do you mean this play functionality |
| 72 | 36:22.3 - 36:40.1 | P1: yeah the user  P2: yes a part of user interface so I would put it here as user interface. |
| 73 | 36:40.0 - 38:06.2 | P2: so I am not entirely sure in the description and or was what it again. it mentioned that your approach should really accommodate at least six intersections if not more. it's from first page.  P1: yeah that was one of the vague things I read in the.  P2: yeah I'm not entirely sure what it's meant by that so lets make intersection.  P1: do they think a route about is intersection of kind of intersection.  P3: no but it said that every intersection had traffic lights I believe  P2: all intersections will be four away so there's no run a bus and there are no T intersection or one way road.  P1: or four way round about but that doesn't really matter. but the traffic light. I don't know  P3: you’re making an assumption right now.  P1: no I just want to know what is what kind of six  P3: six intersections  P1: or just only. P3: your approach  P1: where was it?  P3: point one. on the last sentence. |
| 74 | 38:06.3 - 39:36.4 | P1: yes six intersections on the map. on the. that's what application should do.  P2: you first readily accommodate at least six intersections.  P3: they can simulate with six intersections or something like that.  P1: what does mean by readily that is already there by default or  P2: yeah. I'm not sure.  P1: so should make an assumption.  P3: yeah I think so  P2: ideally we should go to professor E and asking. yeah. but professor E is not around so lets make the assumption and that's application support six intersections.  P3: at least six not even more at least six if not more.  P1: but then we just wan to know how much does it support.  P2: yeah right performance way or scalable  P1: yeah where should we put this in. this is not functionality this is.  P2: this performance or this is perspective  P1: yeah it is quality. its more and |
| 75 | 39:36.4 - 40:01.4 | P3: ok lets see.  P2: that's ignore that requirement for now. here we that's too vague  P1: yeah  P2: we will come back to that later. |
| 76 | 40:01.4 - 41:03.2 | P1: it's saying like all intersections will be four way that's ok but we don't need to map in our global functionality.  P2: no. you’re right.  P3: what kind of functional diagram are we  P2: we just brainstorming the.  P3: brainstorming okay  P2: various functionalities. so until now we have a map editor. we have an editor for the traffic light parameters. we have simulation parameters. we have the simulator itself we have some import and export functionality. and we have the user interface.  P3: I suggest to draw a component diagram  P2: yes  P3: from this.  P2: I agree.  P1: component?  P3: component diagram  P1: which one was that.  P2: not really component but just some boxes with the  P1: modulee  P2: modulees  P1: functional architect the Faf from Sjaak.  P2: yes  P1: don't we want that. it's just in the boxes  P2: it's better.  P3: ok. alright |
| 77 | 41:03.2 - 41:25.5 | P1: it was the functional architecture framework or something.  P2: functional architecture framework. ok so that.  P3: are we how many more minutes. almost one. |
| 78 | 41:25.5 - 43:07.5 | P1: do we have forty five minutes after the two hour to make this in the  P3: yeah  P1: so that's nice.  P3: forty five minutes to document.  P1: so we should now a little bit. so if it is possible to import. ok. you can do the very basic you can also add fun element into the functionality if you import them of. it could store high scores in the most fluent way of traffic to make incentive to the student.  P2: right  P1: that will be really fun I think. that's nice thing to have in it. but it is obvious an extra thing to do.  P2: we just require some way to identify the user so then we will require a log in system.  P3: yeah it is any feature to see what exactly works because you can make many maps and then you see many cars moving around or something like that. that not leave how or you gonna know that something indeed is better than something.  P1: that's why I said to import a specific map from like the lecturer and on that map you can high score because it's quite if you only have one road. that's a lot of complicated stuff to implement. |
| 79 | 43:07.5 - 44:21.3 | P2: ya perhaps. I think the incentive thing is very nice. that doesn't have be high score for say if you can also implement something that analyze the amount of delay and then gives feedback to the user based on how well you perform in that moment. so that would be an extra.  P3: so that at least give some statistic about how do you perform.  P1: also have a function which analysis it or which calculates the.  P3: how long the average wait time was  P1: everything. that calculates everything. what's the. that's also a functionality like the running of the simulation.  P2: yeah the run simulation is for part and not sure how we should decomposed it yet. but  P1: no.  P2: I think we coming to that later  P1: or not this is general.  P2: so I will just put another functionality with the question mark  P1: incentive  P2: incentive |
| 80 | 44:20.6 - 44:57.1 | P2: right. for the. we decide to do a functional architecture model or FAF. right.  P1: yeah  P3: FAM  P2: perhaps we can.  P1: we can also make a scenario over I think with the arrow over it if around this.  P2: I think we can organize it in the like design time and run time components with the supporting modulees beneath.  P1: that would look nice  P3: design time and run time.  P2: so we have a map editor. |
| 81 | 44:57.0 - 45:36.5 | P2: and we have an import modulee.  (writing)  P3: export.  P2: yeah I'm not sure we should put import and export modulee into different modulees or so should we be put it into.  P3: one modulee.  P1: just put them next to each other and we can make a modulee also.  P2: so we have a.  P1: problem.  P2: lets play a card. problem.  P3: yeah. I'm not sure if it's problem or risk or whatever. |
| 82 | 45:36.5 - 46:54.5 | P2: is trade off problem or something?  P3: should the problem is do we modulee the import export features in one  P2: modulee  P3: modulee or into  P2: yeah  P3: and what is specific trade of we do one or the other.  P1: yeah what the advantages in the whole design.  P2: yeah I think those would be very technical those trade off.  P1: can you make a module of a map management or something like that and thought in that module there are is the import module and the export module. so you just throw a box around that so we know to same category. but how do we say it is just import and export and those are.  P2: in another module.  P3: yeah.  P2: yeah  P1: so you draw a box around it.  P2: yeah this is all the map editing and related management functionality. |
| 83 | 46:54.5 - 47:14.3 | P3: ok so.  P1: map editor. import export. what we do more.  P3: draw the road .intersections or.  P1: those are all in the map.  P3: in the map editor or.  P1: yes if you zoom in.  P3: yeah.  P2: I think that the traffic light parameters. we want it to edit them at run time as well. |
| 84 | 47:14.3 - 47:28.0 | P1: make them in the middle or overlay of like those are two boxes that the one is connecting them like this.  P2: I know what you mean yeah.  P1: yeah ok that's one. |
| 85 | 47:28.0 - 47:51.2 | P3: do we have to.  P2: oh yes we should reflect on the cards or we haven't played a lot cards yet. so perhaps we should reflect on the design decisions we made.  P3: so far.  P2: respect to the cards. |
| 86 | 47:51.2 - 49:11.5 | P1: so reflect about design decision the concerning functionality because context we  P2: we've already discuss.  P1: ya.  P2: so the design decision we made was.  P1: we've run time and the creation time. the maps and run time simulation.  P2: it's called design time and run time.  P1: yeah. design time and run time. those all are the two  P2: main  P1: modules for the. well within the design time there is the functionality for the map editor. the import and the export of the maps and.  P2: and well semi traffic light (inaudible).  P1: yes and for the simulation time that's the time where all the functionality is for  P2: running the simulation.  P1: running simulation.  P2: yeah. |
| 87 | 49:11.5 - 49:43.2 | P2: so basically run time is the simulator and we should dive into the simulator to see what aspect we should model there and then we have list the user interface as a functionality I'm not sure if that's  P1: I think we should  P2: the cross cutting concern that.  P1: that's not important  P2: that's not really functionality. right. and the incentives that something that could be added to the run time part of the application. |
| 88 | 49:43.2 - 50:19.6 | P1: yes it is analyze in the run time. but it could be it could be stored in the map like this the high score of the map or something like that and then is you can also export it if you can add that map if you can  P3: (tweaked) more  P1: (tweaked) so it is better.  P3: yeah.  P1: so maybe it is a cross.  P3: that is a good one.  P2: so it just like traffic light parameters it's module in the middle.  P1: yeah. |
| 89 | 50:19.6 - 51:10.2 | P2: TOP stands for traffic light parameter by the way. alright.  P3: and run time components, right?  P2: yes.  P1: it's quite fun to do this actually to design things.  P2: the architecture or card game.  P1: the architecture.  P2: yes.  P1: the card game as well Lody said this.  P3: yes definitely a risk.  P2: but we haven't played the cards during this reflection.  P1: yes it is a bit. |
| 90 | 51:10.2 - 51:33.7 | P2: so. we should perhaps we should.  P3: we also lost some cards I think.  P2: there are on the middle now. so the person who has all the cards at the end has won the game.  P3: yes. won the game yeah.  P2: so we made some assumption probably  P3: yeah, and trade off |
| 91 | 51:33.7 - 51:45.6 | P1: a lot of assumption. well it's not really assumption. if we.  P3: constraints  P2: we infer from the descriptions so.  P1: yeah. |
| 92 | 51:45.6 - 52:32.2 | P: well the assumption is this is these are functionality at least should hold.  P2: ya. with regard the functionality we have made the assumption that it would be too work for to make very broad rule editor so we have left out the rule.  P1: there was a trade off which.  P2: that's a trade off we made. so we have. I think did play the cards for that or not. do we list it in the table.  P3: not exactly  P1: but this is not what we need to do  P2: I'm not sure. |
| 93 | 52:32.2 - 53:37.0 | P2: we should discuss. and I think we should fill out this table form.  P1: yeah well ok. we now taking all the cards away. and this was context. so we had a problem what are all the functionalities. no this is we talk about. we're brainstorming. so it's quite general. so we didn't really put the cards in yet. until we made the real design out of it  P2: alright  P1: and then. we  P2: we would start playing the cards again.  P1: yeah  P2: alright  P1: and which we are now doing this we made trade off (inaudible) at I think fifteen minutes forty five minutes for this.  P2: fifteen minutes yeah. |
| 94 | 53:37.0 - 53:53.7 | P2: is it a constraint or wait it's trade off. it's context or problem or solution. |
| 95 | 53:53.7 - 54:34.6 | P2: I think. it's a problem or was it trade off . for the.  P1: there was a problem?  P2: for the rule editor. the problem was should we include the rule editor or not. and the solution was we will make the design. we will prepare the design for a future rule editor. but we would not implemented it right now  P1: yeah let's put that in this criteria but the problem and we fix this in fifteen minutes. |
| 96 | 54:34.6 - 55:07.9 | P1: ok.  P2: so we can continue with our functional architecture model  P3: FAM  P2: so we have map editor. import module. export module. the traffic lights. parameterization module. the incentive module and the simulator. I think. perhaps we can specified the simulator further?  P1: yeah |
| 97 | 55:07.9 - 55:57.1 | P1: so we can have that and the two things like traffic light and.  P3: business of the traffic.  P1: yeah traffic parameters.  P3: traffic parameters.  P1: traffic light parameters. and different thing with in the running time.  P2: it's should be adjust of.  P3: yeah. I believe it is.  P2: yeah.  P3: amount of cars riding on track. and timing and then.  P2: the traffic editor.  P3: traffic light editor.  P2: the traffic lights we have already listed that here in the middle. so for the traffic .  P1: distribution?  P2: what is called in the description.  P3: traffic density.  P2: yes. |
| 98 | 55:57.1 - 56:43.5 | P3: ok. is there anything we need to think about means that we intersection itself or not.  P2: or we need some short of calculation engine I think. that calculate who that keep track of which vehicle are on the map and where they are go or something.  P1: and the whole simulation.  P2: yes whole stimulation yes. and so there's prep just simulator? |
| 99 | 56:43.5 - 57:04.2 | P2: and that takes input the various.  P1: output parameter.  P2: yes. output  P1: but also the. it also takes input the map editor I think.  P2: yeah.  P1: thingy |
| 100 | 57:04.2 - 57:32.2 | P1: so. whether that. in makes explanation and should we elaborate on the functionality of those things like map editor to.  P2: yeah. but first I have the feeling we should specify the simulator perhaps more but I'm not sure how to do that yet. |
| 101 | 57:32.2 - 57:38.0 | P1: well what should it. what could you |
| 102 | 57:38.0 - 58:15.6 | P1: we also have simulation parameters like speed up the simulation slow down or that traffic. yeah that's more like if you make the traffic go faster advise.  P2: yeah.  P1: no that's the density with make it go the whole simulation go faster which you also see often this simulation. so if it always slow and thin you is really annoying that it should be an extra.  P2: that's a good one. although not entirely what I meant because that's more adding more features to the.  P1: yeah. I know but the exact thing which is not in the simulator. but it's other follow. |
| 103 | 58:15.6 - 58:38.3 | P2: very well.  P1: what's should be in this simulator.  P2: yeah.  P1: yeah that's the whole algorithm for the calculation.  P3: they also said something about that I believe. |
| 104 | 58:38.3 - 59:09.8 | P2: so it should keep track of a traffic lights  P1: cars. traffic  P2: and those already going into the information viewpoint a little bit. but lets. traffic lights |
| 105 | 59:09.8 - 59:20.0 | P1: after one minutes it is five it's one hour should we take a little five minutes break?  P2: yes |
| 106 | 59:20.0 - 59:31.0 | P2: so basically it should keep track of the state of traffic lights and the vehicles where it's vehicle is.  P1: yeah. each unit. if you only want do vehicle. do we want to only to have vehicle or also pedestrians, bikers.  P2: well doesn't matter. because it's just.  P1: it's different rules.  P2: no not different rules I think. |
| 107 | 59:52.2 - 1:00:15.5 | P3: but I think those are also extra features. coz mainly focus on the traffic lights and the.  P1: let's we start with.  P2: traffic participants. can make more generic.  P1: yeah it is traffic unit or something. okay |
| 108 | 1:00:15.5 - 1:01:04.2 | P2: are there more a things the simulator should keep track of?  P1: no what they tracking are those two things but the context parameters are.  P2: it's input for the how they. how it should changes it.  P1: how they should behave.  P2: yeah. it's not only tracking it's. he is. yeah what is tracking you mean that he is steering it.  P2: ya he keeps track of and what the status of everything is.  P1: but he also make state of everything.  P2: and he also update so perhaps we can make a distinction there. so we have the keeping track of stuff and we have the thing that update state. so how does stuff get up dated. |
| 109 | 1:01:12.9 - 1:01:30.9 | P1: you have a like time make time interval something like.  P2: yes so we updated every one hundred mille seconds or something.  P1: yes like that and I don't know what reasonable in this thing but.  P2: right I'm not traffic simulation engineers so I wouldn't now either. that's. |
| 110 | 1:01:30.9 - 1:01:57.5 | P1: I don't think it needs much as much as frame per seconds a game like all they do or something.  P2: yes it's like a.  P1: to be simple and it's a web application and so don't make it too.  P2: high fidelity  P1: no.  P3: only more storage and stuff like that. you also want to present.  P2: yeah that's would be a nice thing for our cards. |
| 111 | 1:01:57.5 - 1:02:42.4 | P1: it is a trade off or constraint.  P2: it is trade of and the. problem is what should the frequent be of update. the trade off being that it shouldn't. it doesn't have to be very high define.  P3: the assumption that you making.  P2: assumption indeed that is not very.  P3: doesn't need to be one hundred mille seconds or something like that. not should be thirty frame per seconds and that would be fine.  P2: yeah . |
| 112 | 1:02:42.4 - 1:03:15.0 | P1: ok.so I can take them from the table.  P2: yeah it can be even less if the performance is not very good because well it's just a simulator it doesn't have to be high.  P1: yeah that's also what I said.  P2: that's right. that's in the description as well. ok so lets take five minutes break.  P3: ok. pause. |
| 113 | 1:03:15.0 - 1:03:58.4 | P2: alright we're back. back in business.  P3: ok.  P2: so. we were at the functional architecture module and lets see. is it complete now? and we were working on the simulator. or talking about the update frequency etc. but I think that's well we discuss enough.  P1: just is anything about put it in below here that functionality for mean.  P2: that's within the simulator.  P1: yeah.  P2: so within the simulator. |
| 114 | 1:03:58.4 - 1:04:11.8 | P1: a feature view. feature view of what simulation. simulator does. |
| 115 | 1:04:11.8 - 1:04:44.2 | P2: so the simulator keeps track of traffic lights and the traffic participants.  P1: this where they all come together. keeps track of all parameters and the current state of the simulation and it also calculates the feature steps.  P2: yeah |
| 116 | 1:04:44.2 - 1:05:04.8 | P2: so it calculate the state of each of the traffic lights and the  P1: state of the model.  P2: yeah. |
| 117 | 1:05:04.8 - 1:05:26.2 | P2: so. I think called them models state calculator or something like that. make it more specific calculated and this is all part of the simulation.  P1: ya. |
| 118 | 1:05:26.2 - 1:05:43.5 | P2: ok. do we miss any functionality. lets reach through the description very quickly |
| 119 | 1:05:43.5 - 1:06:31.0 | P1: or you don't have any functionality for the rules. the business rules or the traffic rules.  P2: alright. we said we would decouple that.  P1: yeah but this something different and.  P2: so what would it effect would make it.  P1: what would it?  P2: what would effect if we make them if we want plug in and new set of rules which of the elements will be effected.  P1: well.  P2: the most state calculator of course.  P1: it is also. this only use in the parameters and the models state but it also the simulator also use the rules of the business of the business the traffic rules. |
| 120 | 1:06:31.0 - 1:06:42.2 | P2: yes. so additional property here.  P1: yeah. |
| 121 | 1:06:42.2 - 1:07:10.4 | P2: lets what kind of rules would that be.  P3: well I think combinations of individuals this things listed here. for example that no signal light will visual the crashes or every intersection in the map must have traffic lights. such rules. |
| 122 | 1:07:10.4 - 1:07:47.4 | P2: but this aren't really related to the region.  P3: no. simulation.  P1: actually the cars driving on the right side and everything. so this also can not crash car can not crash ok that's not really related. but you can have it on the traffic rules. region specific rule set and a general rule set. like they can not crash is the general rule set. but like they should drive on the right side on the left side is a region specific. |
| 123 | 1:07:47.4 - 1:08:12.9 | P2: yes.  P1: so if you want to spread out that traffic rule set you can say general rules and region specific rules. |
| 124 | 1:08:12.9 - 1:09:19.8 | P2: that's more like you have rules like someone drives on the right side or left side. and you have constraints. coz this constraints  P1: yeah I always see constraints is a sub set of rules  P2: for example, the combination of individual signal that would result in crashes should not be allowed. that's something that belongs in the design time. is not really applicable to the simulator.  P1: yeah.  P2: so this kind of rules or constraints. perhaps we've been distinguish within design time rules and simulation rules. perhaps it's maybe better fit.  P1: ok |
| 125 | 1:09:19.8 - 1:10:04.7 | P2: but that's the part of the map editor so perhaps we should also elaborating the map editor. functionality wise. so if you look at the map editor. what kind of functionalities |
| 126 | 1:10:04.7 - 1:10:29.1 | P2: to the map editor have  P1: create a way. move a way  P2: yes  P1: create intersections. place traffic lights. set traffic lights.  P2: so some kind of placement  P1: elements. |
| 127 | 1:10:29.1 - 1:11:27.0 | P2: I'm not sure how we should call this . but for now is placement of elements. yeah basically does everything.  P1: no. I think the rules of the traffic lights.  P3: but there was all where we (inaudible) or not.  P1: oh yeah  P2: but it should. they should integrate with the map editor because this is about elements on the map. so not sure if the. I think this is part of the map editor. in original design we made a split between design time and run time that can easy make so many elements on the map editor. available during the run time.  P1: ok |
| 128 | 1:11:27.0 - 1:11:35.8 | P2: so next to place into elements we have element parameters |
| 129 | 1:11:35.8 - 1:12:25.2 | P2: do we have more elements.  P1: do we also want. no they can not added any to those elements, right? they are predefine so if intersection it just waste of the upside down the U-turn maybe or corner how we say it. |
| 130 | 1:12:25.2 - 1:13:35.3 | P2: I just have roads and intersections and all intersections are four way. we didn't have one way roads was on the description. so. that's we have roads and traffic lights.  P1: ok now you join them the map. ok  P2: or at least.  (reading)  P2: you mean corners, right? you can make them with.  P1: it is right road yes.  P2: right roads and once you place roads in certain way  P1: it's just part of a away.  P2: yeah. but if you place roads in certain way. and intersection automatically being made because.  P3: you overlay two roads.  P1: no that's not true. if you have like one corner going up you do not need intersection here. like this can only up like this corner. corner of the map or something you don't want like this or you want turn lets cars return or something you don't need all you only have intersection in straight ways. that's what you suggesting. |
| 131 | 1:13:35.3 - 1:13:52.1 | P2: yeah I thought the description mention something like that or at least it's very simple.  P1: yes it is not to complicated to implement this I think. |
| 132 | 1:13:52.1 - 1:14:45.7 | P1: that doesn't really matter for functionality.  P2: no I think so. just have road and traffic lights.  P1: both traffic light intersections.  P3: and where do we handle the state of the traffic lights. how those are being  P1: that's in simulator  P3: also in the simulator.  P1: start with the default value which we set then it simulated.  P3: ok.  P2: yeah. well default value it's just the property of the map and when you run it you can adjust the property of the parameter of the map and then so. |
| 133 | 1:14:45.7 - 1:16:17.6 | P1: ok.  P2: alright so that's the function architecture model or we can place some overlay here now I think? so the user. well that describe the scenario where the user import an existing map and make some changes, you run simulator and you does some adjustment to the parameters and then you satisfy so you export module. export the map. so we would have one. that the user importing.  P3: yeah.  P2: and goes to map editor. to make some adjustment to the map and should we replace this TUP or.  P1: ok  P3: could the  P2: so we can dive into the map editor now. so and we place some extra elements. lets say one two step three then step four we adjust some element parameters. yeah |
| 134 | 1:16:17.6 - 1:16:49.2 | P2: and then we start the simulation.  P1: yeah.  P3: well do all the simulation is count two. wait this step from import module to map editor was step two and then step three is placing of the elements to the element parameters editor and then from that simulation step four. |
| 135 | 1:16:49.2 - 1:17:17.8 | P2: so we have step four to the simulator. yes this diagram seem very clear. ok so.  P1: yeah. get away in what during simulator it's quick little bit.  P2: the simulation parameter  P1: yes  P2: or should be said simulation parameters before we start simulating or they just set with sensible defaults. |
| 136 | 1:17:17.8 - 1:17:55.9 | P1: there are set in default tweak it and that's what learning processes is all about for student.  P2: yeah.  P3: to see what those changes.  P2: the changes the traffic density. changes the simulation parameters. there could be happen simultaneously. or some like yeah doesn't matter which one.  P1: yeah but that's the different (inaudible) doesn't really matter for now but we can make it different. |
| 137 | 1:17:55.9 - 1:18:22.8 | P1: this could whole be different. so don’t bother too much we do it on the computer or we make it different on it. ok and then he says he like it so he stop it and export it.  P3: yeah.  P2: yeah we didn't mention incentive.  P1: yeah |
| 138 | 1:18:22.8 - 1:19:30.9 | P1: did could be for later.  P3: yeah.  P1: that's the thing we can.  P2: that's not really. something that user uses is always there.  P1: yes. so make it find now we're done.  P3: now we're done.  P1: one possible scenario.  P2: scenario. was the main scenario.  P1: yeah.  P2: ok so.  P1: I thought about in this thing last thing in about functionality maybe, there is help function or a introduction to how it work or introduction movie or do we want to include this?  P2: where were you included?  P1: I don't have no idea. yeah it is in design time or in run time. their both have a little bit of support.  P2: so in the map editor we can add some  P1: support  P2: support module.  P1: and same in run time. |
| 139 | 1:19:30.9 - 1:20:57.4 | P1: yeah ok. just support we can put it.  P3: do we have to think about user can not make like intersection that aren't how to say this  P2: yeah. the things that are listed here like the combination.  P3: yeah if he does something wrong how would does the system react to that.  P1: it's just simulator.  P2: no.  P1: what do we mean by does something wrong.  P2: combinations of individual signals that would be something crashes should not be allowed. so I think that when you change something in the map that caused such a situation.  P1: oh. show error  P2: you show an error and you can link to the support module which we say like.  P3: yeah ok.  P2: like you can solve this in and this.  P3: so we have a problem.  P2: ya perhaps.  P1: what do you mean by this.  P2: this show road  P1: is it constraint or problem  P3: well. we first have a constraint and then we have we  P1: it could be a problem card and could constraint. and could be both by the way  P2: yeah.  P1: I though one minute twenty. one hour and twenty.  P2: so how long she mention the problem that. well the problem how we should implement the constraint. |
| 140 | 1:20:57.4 - 1:21:35.8 | P1: but there was solution for it. one hour twenty two.  P3: nice  P1: and it would be that what Person 1 said and that there is there will be link to the support.  P2: yeah so the map editor have no switch constraint are in effect and when such constraint violated then the support module is trigger that |
| 141 | 1:21:35.8 - 1:23:02.1 | P2: alright. so I think we cover the functionality then.  P1: yeah. it makes the last part.  P3: okay  P2: so what kind of information. I think we have  P1: all static parameters. or I don't know  P2: lets be specific.  P1: what. that's specific?  P2: not  P3: that was too broad  P2: settings is a bit broad. what kind of setting do we have?  P3: traffic lights.  P2: yes traffic lights.  P3: so and that meant how fast it is switch from green to red or yellow?  P2: yes.  P3: you also have the setting for sensor or not I believe.  P2: yes. so there basically the timing slash  P3: timing  P2: what was the sequence.  P3: light sequence.  P2: yes or the sensor.  P3: yeah  P1: traffic rules or the.  P2: traffic rules you mean traffic density or do you mean the business rules.  P1: yeah. the original traffic rules of course . regional traffic rules and general traffic rules and then you also have traffic settings which is different. |
| 142 | 1:23:02.1 - 1:23:17.2 | P3: that's the density and the speed.  P1: yeah we call those setting because you can set them configure them and then you also have the rules which also information.  P3: can be set are there by default |
| 143 | 1:23:11.6 - 1:23:34.5 | P1: yes. those are rules like. that they can not do this because that collides or . they have to drive on the right side or  P2: yeah. |
| 144 | 1:23:34.5 - 1:24:12.7 | P: so we have a map. that's something that contains a lot of information about the world that simulated. and the map.  P1: how you wanna store that.  P2: the map has some roads and  P3: some intersections  P1: the elements from it yeah those are roads, traffic lights and traffic practice happens. that how Person 1 would like to called it. |
| 145 | 1:24:12.7 - 1:24:20.6 | P2: intersections of course.  P1: they also have the .  P3: so we dealing now with the context right.  P2: right. |
| 146 | 1:24:20.6 - 1:24:36.5 | P1: is that so.  P2: no  P1: is not really context. we're just thought is not one of this.  P3: ok.  P2: we're just (selluding).  P1: (selluding). |
| 147 | 1:24:36.4 - 1:25:00.5 | P1: about to export or.  P2: that's not really in the information view I think.  P1: no I don't also. |
| 148 | 1:25:00.5 - 1:25:33.8 | P2: lets look at the diagrams we make. so when the simulator is running. the state of the participant for example and the traffic light. I think should be separate from the static traffic light information.  P1: yeah.  P2: because you have  P1: you mean you have have the static part and the fluid or continuous part.  P2: yeah design time or run time part.  P1: yeah. |
| 149 | 1:25:33.8 - 1:25:59.6 | P2: so traffic light settings and traffic density settings basically all the settings or the design time.  P1: I don't know how you do it or what are models for the information just like this that you place them next to each and connect them or how is this just boxes with arrows.  P2: I'm just listening all the stuff right now and we can draw diagram.  P1: yeah we already think about it. okay. |
| 150 | 1:25:59.6 - 1:26:46.6 | P3: I think data flow will most straight forward.  P1: if we have incentives. we have information about that too.  P2:yeah.  P1: is in the map or do we want to store it. well what do when we export about which information is in there. is of course is about  P2: all the placement  P1: other placement.  P2: all settings.  P1: settings. and the score maybe the high score or the perfect best score .  P2: we could do that. |
| 151 | 1:26:46.6 - 1:27:39.0 | P1: lets see if you can improve it with some settings.  P2: yeah. we can just list the simulations that are we run in the map you can export them. so a simulation is some of these information as well. and part of simulation could be like how well it perform so what the average waiting time was. or different point time.  P1: you want like finish simulation you mean.  P2: yeah when you stopped it finished but you can record everything and you can store it in simulation.  P1: okay. and that's also. no that's not the thing which will be export.  P2: and the incentives are based on this information. |
| 152 | 1:27:39.0 - 1:28:20.4 | P1: I think those are the most important part, we have the server what in server. should we also not place information in. things like that.  P2: well it depend on the. we draw an external database what is exactly stored in the database.  P3: well the program it self as a whole or there is web server.  P2:yeah there just the package application.  P3: yeah.  P1: the rules.  P2: and the rules we . I think we decide to hard code them and make them later on configurable. |
| 153 | 1:28:20.4 - 1:28:46.2 | P1: sure then you can put it in the web application you right.  P2: you can put it in application you need. Don’t need the external database.  P1: so we can delete the database.  P2: I think so I'm looking at this proportionality I think that should be editable or should be stored in database so where that context diagram.  P3: move it to web server. |
| 154 | 1:28:46.2 - 1:30:15.4 | P2: ok. I think we are now just pretty much for the information.  P1: lets make it focus arrow diagram.  P3: so you can make an entity relational diagram.  P1: oh yeah.  P2: that is particularly suit for the database.  P3: yes ok class model  P2: so we can make class model?  P3: we can make class model or star schema entity relation diagram?  P1: maybe class model is nice because we also.  P3: lets think about cultures.  P1: we deliver.  P3: I think (inaudible) viewer or something like that.  P1: I don’t know you should design the basic appearance of the program did we do that?  P3: no not yet.  P2: I think that's part of the functional stuff so can make some easy quicklier sketches. |
| 155 | 1:30:15.4 - 1:30:49.2 | P1: we can just sketch it, right?  P2: yes so basically this is your map editor so I picture it a little bit like Photoshop or Visio where you have drawing area with some tools.  P1: yeah to me it really doesn't matter if you put the tools in the left or right.  P2: no.  P3: on top maybe you can have your material to build or something on the left side or something and then your parameters on the right or something like that to set different features.  P1: yeah and then we talk like export import.  P3: export import yeah of course. |
| 156 | 1:30:49.2 - 1:31:40.9 | P2: so you mean like traditional menu on top or something like that.  P3: yeah. export import run.  P2: import. export. run. simulation  P3: and the help is also right there, because if you are in design then you can click on help and then it will show you.  P2: yes. properties.  P3: and then you can pick from the left side which tools you want to use so place traffic light.  P1: so when you click on something then the property you can adjust the property of that thing.  P3: yes, select and then you can see. maybe you can move it over and over and that can see what the properties are. you can click on it and the you can. |
| 157 | 1:31:40.9 - 1:31:52.0 | P2: I making some very interesting .  P1: yeah. don't make it into the sketch because we gonna make it on the desktop like this |
| 158 | 1:31:52.0 - 1:32:07.5 | P1: ok that's how work and that's cars and traffic lights within.  P2: I miss the traffic light.  P1: just do lolly pop thing with.  P2: this is one. this is two.  P3: nice.  (drawing) |
| 159 | 1:32:07.5 - 1:32:43.2 | P1: okay. I would put them next to the road. and done playing bad.  P2: zoom.  P1: zoom function oh wouldn't we make. should we make that kind of functionality.  P3: let see  (reading)  P3: must design interaction students with the system. you should design the basic appearance of the program okay we did that. as well as the means but which the user create a map, set traffic timing scheme, and use traffic simulation. we have that right.  P2: yeah. |
| 160 | 1:32:43.2 - 1:33:05.4 | P1: you must design the basic structure of the code that will be used to implement the system, you should focus on the important design decision that form the foundation of the implementation and work those out to the depth you believe is needed. or you have time for.  P2: okay. |
| 161 | 1:33:05.4 - 1:33:22.6 | P3: okay well.  P1: but first finish the information thing. shall we do that then we done with notes  P3: and work it out. so we design on making the class model.  P2: yeah.  P3: alright. |
| 162 | 1:33:22.6 - 1:33:57.8 | P2: lets start with some high level module where we took class within.  P1: okay well traffic light.  P3: first we start with the run time.  P1: yeah indeed. top level.  P2: I'm not sure that's a good separation anymore.  P1: I'm not so good in class oh. in general.  P2: yeah and particularly now because we will be join some classes that should be in both I think. it's a bit problem we saw with traffic light parameters. |
| 163 | 1:33:57.8 - 1:34:39.1 | P3: okay. should we take a card maybe to sort this out ot not.  P2: yes.  P3: because I think.  P1: yeah a problem.  P3: almost is time to. so we have a problem. and the problem is that some features are used in both feature.  P2: you were saying.  P3: so we have some components which are used in both features. right.  P2: yes.  P3: and that's the problem we are having right now so.  P1: what?.  P2: yeah some class could be either in design time and run time.  P3: yes  P2: or both at the same time. |
| 164 | 1:34:39.1 - 1:35:35.2 | P1: yeah. but if we sketch the problem like this. it's not like. okay, you can use both a lot of thing indeed both at the same time. what you only cannot do is create a road and intersections.  P2: perhaps we should not make high level distinction between design time or run time. but focus on modules and then later on we can always move specific classes.  P1: okay.  P2: so I think the thing that we have. we have a map. map has relationship with roads. a road placement I think.  P1: but lets first state all the elements which are in.  P2: yeah we have them here |
| 165 | 1:35:35.2 - 1:36:07.1 | P1: a map it has roads, traffic lights, intersections, participants.  P2: the participants.  P1: are not on the map actually it interact with .  P2: yeah.  P1: okay then there is traffic light, intersections, and roads.  P2: so I begin with roads, it is a class.  P3: do we have also to specify the attributes |
| 166 | 1:36:07.1 - 1:37:06.4 | P1: no. that's too general because we have more general because we don’t have so much time.  P3: yeah ok that's true that's true. yes.  P1: traffic lights, intersection.  (drawing)  P2: ok.  P1: then we have rules. a different kind of rules. oh no that's too much. we have a lot of settings.  P2: yes. so we have the general traffic rules you mention and.  P1: yes two of them like regional and general. which probably separate classes  P3: yes  P1: inherited by (inaudible) |
| 167 | 1:37:06.4 - 1:37:28.2 | P1: it's only that we did it once that I wrote this more general rules and.  P3: distinction so super class rules.  P1: in the future if you want to make it. lose the couple easy to adjust we should make general rules and regional rules.  P3: yeah |
| 168 | 1:37:28.2 - 1:37:56.5 | P2: the traffic rules are those part of the map or just general things in the application.  P1: things which the simulation used but not spending (inaudible) more that.  P2: so we have the simulation and the simulation references certain map. |
| 169 | 1:37:56.5 - 1:39:46.1 | P2: and the traffic rules are also reference or. taking into an account  P1: is also the setting thing maybe you should put it also  P2: yes  P1: in the class with.  P2: the traffic density settings or.  P1: all kinds of setting you have. density setting light traffic lights setting. those two.  P2: yes. so I have a problem what if someone changes the traffic light settings while a simulation is running. we want to keep track of the state I think or do we want to keep track of this state of the map or doesn't it matter and just. so to be clear someone starts simulation and changes some traffic light settings then the simulation will try at will change and because we have model it currently as reference from the simulation to the map. the traffic light setting will always change. you can't restore the original traffic light setting.  P1: ok.  P2: so and also do we have a undo button for example of a map. and when you drawing a map and you place one it but which you don't want it there. do we offer an undo button. I think that's really should be there. so then the map editor has some kind of elemented major version of the map. |
| 170 | 1:39:46.1 - 1:40:36.6 | P1: yeah so that's information.  P2: map version is copy of the map. so a map version or.  P1: action and lock or something like that.  P3: version control.  P2: or many ways we solve the version you could also indeed record all actions and then undo action.  P1: that's how most generalize don’t.  P2: I know. it could be. |
| 171 | 1:40:36.6 - 1:41:54.2 | P3: ok we also.  P2: so we would record all actions that are in font of map  P1: yeah.  P2: and then we model.  P1: is it in the map editor or in the simulator where is this functionality recording?  P2: maybe in the map editor which can access the map editor from the simulation when you're making adjustment to the traffic light I think for example.  P1: okay so put it in the map editor .data time element thing. should we put data element already but we should put also the functionality of map editor.  P2: map action.  P1: so in the future we'll put it.  P3: this feature in the future.  P2: so in redo. and then we keep track of all the action that are performance on the map. and then this is all the information of the that is stored and so we have the map action |
| 172 | 1:41:54.2 - 1:42:50.1 | P2: ok. at traffic density setting. yes it's with you? will be cover everything  P1: no.  P2: participants  P1: where is traffic lights setting. oh there are on the rest.  P2: it's right here.  P1: ok. and participant are at simulation.  P2: their are not here yet  P1: should make a class which also simulation uses.  P2: yes. right here |
| 173 | 1:42:50.1 - 1:43:50.7 | P2: I think that's about it for now ok.  P3: we should reflect maybe.  P2: yes.  P1: then we're done for now and then we should back to restart.  P2: we have one information view currently. so how the information flows to the application that.  P3: data flow model.  P2: that's some possibility and. probably most appropriate in this case. what would be the end. I think the problem I just mention about the map action.  P1: did we need the static one and a fluid one. does it really matter which one this is static.  P2: this is static. so you can something with the map action perhaps. or you can do something with the simulation perhaps better |
| 174 | 1:43:50.7 - 1:44:37.5 | P1: so we would not do the one which we which is align with the view we did with import export and then (inaudible).  P2: which you do you mean actually.  P1: overlay of functional scenario of this architecture.  P2: this one.  P1: yeah this one. so we can just make something of information boxes and arrow and a little bit like this but then which information we use.  P2: yeah. |
| 175 | 1:44:37.5 - 1:45:16.2 | P2: so perhaps we should add information about export import or map package or something that relevant everything.  P1: yeah. is that non map?  P2: yeah that's map perhaps. yeah ok.  P1: but where is the import and export thing where are the import and export from. if it is in the program. yeah it is not make it too difficult. |
| 176 | 1:45:16.2 - 1:46:23.3 | P2: so should we draw it as overlay again on this one.  P1: no. I think we should just list this and then just arrow this from this thing which is used.  P2: just numeric list  P3: top down  P1: sequence  P2: perhaps she wants to draw.  P1: ok we start what's the first step?  P2: import map.  P1: ok so we go from map. lets say you make the occur now but this is the action. import and then squares are what information this is map we go to the next this one next action to. we what's here.  P2: we are going to the map editor. |
| 177 | 1:46:23.3 - 1:47:12.4 | P1: we want also to edit it is also in this scenario and then we edit it or only we.  P2: no we just edit templates to some element on the map.  P1: adjust map.  P2: we yeah we adjust the map at least. we place a road.  P1: and place road. I do it place road. so yeah. map and roads.  P2: yes. replacing intersection for example.  P1: that's it .ok then |
| 178 | 1:47:12.4 - 1:51:34.0 | P2: and then we run simulation so.  P1: give me a sec. ok and then simulation. what do we need for a simulation. we have a map or.  P2: create a new simulation first of all.  P1: create simulation or.  P2: yeah run the simulation for a new simulation is. record it  P2: I'll say simulation  P2: and the simulation reference to the map that's doesn't change the map. so we use it. this doesn't operate or something  P1: uses map and.  P2: and then we tweak some traffic density setting.  (drawing)  P1: which is also used by the simulation. ok so also used by the simulation that moment so simulating and then.  P2: we also do some simulations perhaps.  (drawing)  P2: and then we export.  P1: where is this traffic setting . no. participant simulation setting.  P2: yeah. it's not there. well the density settings and simulation parameters are not here with this traffic density basically. and what you do before. it's was also traffic density.  P1: oh what. yeah. the simulation settings and participant is something difference we used also check this. delete it. ok and then we just run we just no it's already.  P2: it's running so it has have you mentioned the participants in the.  P1: no that was I was.  P2: this assuming this simulation started .participant response on the map I think.  P1: is so it also uses.  P2: yeah participants  P1: and for traffic rules also thing is using.is this one  P2: yeah.  P1: and then we create this last action in five.  P2: yes. you mean exit or the export.  P1: exit export.  P2: we export the map and that's basically it and exit the user close the map.  P1: and then you have map.  P2: yeah.  P1: but also (inaudible).  P2: and yes.  P1: which are in  P2: in simulation. so the export is a map and the simulation.  P1: ok add it.  P2: ok.  P1: I think we now should  P2: start with the implementation  P1: typing and the making the documentation rationale.  P2: yeah.  P1: ok. that was it I hope you enjoy it. |