Software Project Management Plan

Chair for Applied Software Engineering, TUM

Table of Contents

1 Project organization

Sections:

- Project Participants
- Organizational structure

1.1. Project Participants

User: Bakr Albatran

User: Dimitri Alexeev

User: Daniel Angermeier

User: Oliver Salah Arafat

User: Jan Birke

User: Bernd Bruegge

User: Eva Fenzl

User: Jason Franklin

User: Catinca Golesteanu

User: Nick Heuser

User: Christian Hoerwick

User: Volker Iden

User: Christian Kern

User: Michael Knapp

User: Peter Lachenmaier

User: Karim Morsy

User: Martin Ott

User: Florian Schneider

User: Christian Schroeder

User: Harald Stangl

User: Christoph Teschner

User: Federico Tessmann

User: Leon von Tippelskirch

User: Periklis Tsirakidis

User: Timo Wolf

User: Diego Wyllie

Open Action Items	Description
Audio-Frameworks der Firma zplane	Schreibe in VSO-announce über die Möglichkeit des Einsatzes des Audio-Frameworks der Firma zplane

User: Vera Yordanova

1.2. Organizational structure

Group: Architecture Team

The architecture team is a cross-functional team that consists of one API engineer from each team.

The main tasks of the architecture team include:

- Modelling VSO as a set of services
- Ensure that each subsystem follows the architecture design principles
- Provide middleware support

Group: Audio Team

The audio team provide services for

- playing multiple music files
- changing the music tempo and volume
- mapping music streams to a surround sound system

Group: Demo Team

The demo team is responsible for:

- Testing the VSO system
- Configuration of the VSO system
- Providing and executing demos of the VSO system

Group: Innovation Team

The innovation team provides technical support and tutorials to all other teams.

Group: Orchestra Team

The orchestra team provide services for

- configuring the orchestra, consisting of instrument groups and instruments
- mapping instruments to 3D coordinates
- interface to audio and video subsystems

Group: Project Management

The Project Management Team pursues two goals:

The evaluation of project-based organization in general and the application of IT-management tools for distributed team management in a project-based organization.

In particular, we experiment with the following technologies:

- Tools for workflow management
- Sysiphus for distributed system modelling and issue-based modelling
- Procedures for distributed demos, e.g., video conference

- Procedures for distributed meetings, e.g., Voice Over IP, Skype, CampusTV

Group: Review Rationale Team

Group: Tracking Team

The tracking team provide services for

- tracking the baton of the conductor
- analyzing gestures (1/2, 3/3, 4/4 measures)
- controling the VSO system

Group: User Interface Team

The user interface team provides a graphical user interface for

- administering the VSO system
- visualizing monitoring and control information about the VSO system

Group: Video Team

The video team provide services for

- playing multiple video files
- changing the video frame rate
- merging and overlapping of multiple video streams

2 Action Items

Sections:

- All Action Items
- Development Team Action Items
- Cross-Functional Team Action Items

2.1. All Action Items

Action Item: 4705-01 Videoplayer

Team	Video
Development Activities	---

Bis Donnerstag einen kleinen Videoplayer zum Vorführen bauen

Action Item: 4705-03 Videomaterial bearbeiten

Team	Video
Development Activities	---

Bis nächsten Dienstag das Videomaterial digitalisieren, sichten und schonmal versuchen zu keyen

Action Item: 4705-04 Audiotrack identifizieren

Team	Video
Development Activities	---

klären, welche Audiospur online gestellt wurde (erste freie Aufnahme, oder die geklickte?)

Comments	Description
Hi ist die erste freie version	Die 4 spuren mit klick werden noch bearbeitet und sollten am montag fertig sein
erste version	die erste version "VSO Quartet zusammen.aif" wurde ohne Klick eingespielt und ist somit nicht zur Syncronisation mit den Videofiles geeignet.
geklickte version	hi, die geklickte version ist auf filebruegge online
geklickte version	hi, die geklickte version ist auf filebruegge online

Action Item: 4705-05 Belegliste

Team	Video
Development Activities	---

anfragen, dass die Belegliste für das Multimedia-Labor wieder eingeführt wird

Action Item: 4705-06 Video Constraints

Team	Video
Development Activities	---

die Constraints für die Videoaufnahmen in sysiphus hinterlegen

Action Item: 4905-01 Finalize the video analysis model.

Team	Video
Development Activities	Analysis

Finalize the video analysis model. It must be presented on Thursday, 8 December.

Annotated Elements	Description
Video.Solution.Model	Video Subsystem Solution Model
Video.Solution.Model	Video Subsystem Solution Model

Action Item: 4905-02 Videos mit den Musikdateien syncronisieren

Team	Video
Development Activities	---

Video und Audiodateien syncronisieren, so das sie zur selben Zeit anfangen. Evtl. die Videos croppen um Platz zu sparen.

Action Item: 4905-03 Testvideos mit verschiedenen Codecs erstellen

Team	Video
Development Activities	---

Ziel ist die verschiedenen Codecs vergleichen zu können:

Dateigröße,

Bildqualität,

CPU- Last bei Dekomprimierung

Action Item: Add all identified design goals to the Design goals section

Team	---
Development Activities	System Design

Please add all design goals of the presentation to Sysiphus.

Annotated Elements	Description
1.2. Design goals	
1.2. Design goals	

Action Item: Add Issues and Action Items from System Design Review into Sysiphus

Team	Review and Rationale
Development Activities	System Design

Please add the identified issues and action items of the system design review into Sysiphus.

Action Item: Add missing objects into object model

Team	Tracking
Development Activities	Analysis

Action Item: Add missing scenarios

Team	Tracking
Development Activities	Requirements Elicitation

Action Item: Add missing use cases

Team	Tracking
Development Activities	Requirements Elicitation

Action Item: Add missing user tasks

Team	Tracking
Development Activities	Requirements Elicitation

Action Item: add new model of gesture to analysis object model

Team	Tracking
Development Activities	Analysis

Action Item: Add nonfuncational requirement item: Avoid of video dropouts

Team	Review and Rationale

Development Activities	---

Annotated Elements	**Description**
4.3. System Design Review	During system design, we identify design goals, decompose the system into subsystems, and refine subsystem decomposition until all design goals are addressed. The goal of the system design review is to verify that the design goals are met by the system design model. We need to ensure that the VSO system design model is correct, complete, consistent, realistic, and readable. Questions to determine if the system design is correct: - Can every subsystem be traced back to a use case or a nonfunctional requierement? - Can every use case be mapped to a set of subsystems? - Can every design goal be traced back to a nonfunctional requirement? Questions to determine if the system design is complete: - Have the boundary conditions been handled? - Was there a walkthrough of the use cases to identify missing functionality in the system design? - Have all use cases been examined and assigned a control object? - Have all aspects of system design been addressed? - Do all subsystems have definitions? Questions to determine if the system design is consistent: - Are conflicting design goals prioritized? - Does any design goal violate a nonfunctional requirement? - Are there multiple subsystems or classes with the same name? - Are collections of objects exchanged among subsystems in a consistent manner? Questions to determine if the system design is realistic: - Was the appropriateness or robustness of included technologies or componentes evaluated? - Have performance and reliability requirements been reviewed in the context of subsystem decomposition? - Have concurrency issues (e.g. contention, deadlocks) been addressed? Questions to determine if the system design is readable: - Are subsystems names understandable? - Do entities with similar names denote similar concepts? - Are all entities described at the same level of detail?

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Action Item: Add photo to VSO portal site

Team	---
Development Activities	---

Each VSO member must upload a photo to the VSO portal.

Action Item: Allen sagen, dass sie keine binärdateien in das SVN einchecken sollen

Team	Architecture
Development Activities	---

Action Item: analyze exported data from our gesture-analysis-session

Team	Tracking
Development Activities	---

Action Item: Ask Client wether musical pieces with different instrument tempi exist?

Team	Tracking
Development Activities	Requirements Elicitation

Annotated Elements	Description
Is this functionality really desirable?	Changing the tempo (BPM) of several musical tracks and than rendering all them simultaneously would lead in most cases to a quite unpleasant sound. (State of the art audio sequencers like ableton live, cubase, logic? etc do not provide such functionality)
Is this functionality really desirable?	Changing the tempo (BPM) of several musical tracks and than rendering all them simultaneously would lead in most cases to a quite unpleasant sound. (State of the art audio sequencers like ableton live, cubase, logic? etc do not provide such functionality)

Action Item: Ask For Copyright Issues

Team	Audio
Development Activities	---

Ist das Online-Stellen von Aufnahmen in rechtlicher Hinsicht bedenklos, oder können dabei Urheberrechte verletzt werden?

Comments	Description
Zwischenlösung	Solange die Urheberrecht-Problemmatik ungeklärt bleibt, soll das Tonmaterial ausschliesslich intern auf dem filebruegge-Server verfügbar sein.
Herr Märkl gibt grünes Licht	die Benutzung unserer Aufnahme fürs Internet ist von unserer Seite kein Problem und ich denke, daß da keine rechtlichen Schwierigkeiten auftreten werden. Viele Grüsse Key Märkl

Action Item: ask friend (who can conduct) if he/she is available for our gesture-analysis-session

Team	Tracking
Development Activities	---

Action Item: Associate the audio classes to the related components

Team	Audio
Development Activities	System Design

Map the classes or packages of audio subsystem to the related audio components. The 'Components' field of the classes or the 'Object Model Elements' field of the components can be used to create the mapping.

Annotated Elements	Description
Audio	Audio Subsystem
Audio	Audio Subsystem

Action Item: Associate the orchestra classes to the related components

Team	Orchestra
Development Activities	System Design

Map the classes or packages of orchestra subsystem to the related orchestra components. The 'Components' field of the classes or the 'Object Model Elements' field of the components can be used to create the mapping.

Annotated Elements	Description
Orchestra	
Orchestra	

Action Item: Associate the tracking classes to the related components

Team	Tracking
Development Activities	System Design

Map the classes or packages of tracking subsystem to the related tracking components. The 'Components' field of the classes or the 'Object Model Elements' field of the components can be used to create the mapping.

Annotated Elements	Description
Tracking	
Tracking	

Action Item: Associate the user interface classes to the related components

Team	User Interface
Development Activities	System Design

Map the classes or packages of user interface subsystem to the related user interface components. The 'Components' field of the classes or the 'Object Model Elements' field of the components can be used to create the mapping.

Annotated Elements	Description
UserInterface	
UserInterface	

Action Item: Associate the video classes to the related components

Team	Video
Development Activities	System Design

Map the classes or packages of video subsystem to the related video components. The 'Components' field of the classes or the 'Object Model Elements' field of the components can be used to create the mapping.

Annotated Elements	Description
Video.Application.Model	Video Subsystem Application Model
Video.Application.Model	Video Subsystem Application Model
Video.Solution.Model	Video Subsystem Solution Model

Action Item: Audio-Frameworks der Firma zplane

Team	---
Development Activities	---

Schreibe in VSO-announce über die Möglichkeit des Einsatzes des Audio-Frameworks der Firma zplane

Annotated Elements	Description
Diego Wyllie	
Diego Wyllie	

Action Item: Besprechen von Problemen bei OpenGL und Objective C

Team	User Interface
Development Activities	---

Action Item: Change Component dependencies

Team	Audio
Development Activities	System Design

According to the resolved issue, the component dependencies of the Audio component needs to be changed.

Annotated Elements	Description
Does the AudioController really need to use the VideoController?	
Does the AudioController really need to use the VideoController?	

Action Item: Change meeting time in webcal

Team	Tracking
Development Activities	---

our meeting time changed, make it public

Action Item: Coach Handbuch lesen

Team	Project Management
Development Activities	---

s. http://www.globalse.org/coach

Action Item: Coach Handbuch verfügbar machen

Team	Project Management
Development Activities	---

The coach handbook can be found under this URL

http://www.globalse.org/coach/

Action Item: Complete the team-homepage

Team	Demo
Development Activities	---

The team-homepage must be complited with photos.

Action Item: Contact client for feedback about recorded audio files

Team	Demo
Development Activities	---

Action Item: Create a new Action Item

Team	---
Development Activities	---

Each project participant has to create a new action item within sysiphus.

Action Item: Create a new nonfunctional requirement item in Sysiphus: Robustness (Tracking algorithmus)

Team	---
Development Activities	---

Annotated Elements	Description
4.3. System Design Review	During system design, we identify design goals, decompose the system into subsystems, and refine subsystem decomposition until all design goals are addressed. The goal of the system design review is to verify that the design goals are met by the system design model. We need to ensure that the VSO system design model is correct, complete, consistent, realistic, and readable. Questions to determine if the system design is correct: - Can every subsystem be traced back to a use case or a nonfunctional requierement? - Can every use case be mapped to a set of subsystems? - Can every design goal be traced back to a nonfunctional requirement? Questions to determine if the system design is complete: - Have the boundary conditions been handled? - Was there a walkthrough of the use cases to identify missing functionality in the system design? - Have all use cases been examined and assigned a control object? - Have all aspects of system design been addressed? - Do all subsystems have definitions? Questions to determine if the system design is consistent: - Are conflicting design goals prioritized? - Does any design goal violate a nonfunctional requirement? - Are there multiple subsystems or classes with the same name? - Are collections of objects exchanged among subsystems in a consistent manner? Questions to determine if the system design is realistic: - Was the appropriateness or robustness of included technologies or componentes evaluated? - Have performance and reliability requirements been reviewed in the context of subsystem decomposition? - Have concurrency issues (e.g. contention, deadlocks) been addressed? Questions to determine if the system design is readable: - Are subsystems names understandable? - Do entities with similar names denote similar concepts? - Are all entities described at the same level of detail?

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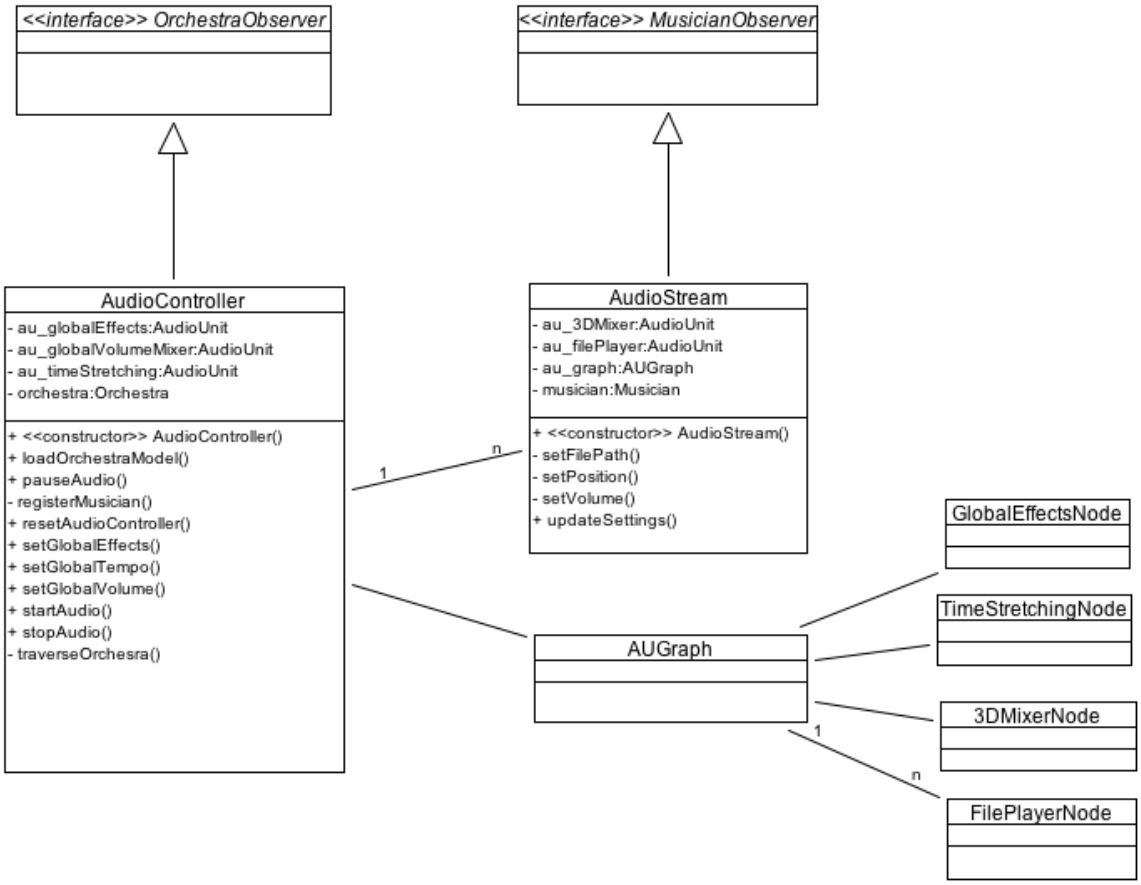
Action Item: Create the analysis model for the audio subsystem

Team	Audio
Development Activities	Analysis

The analysis model for the audio subsystem is still missing. Create the model until thursday, 8 December.



Annotated Elements	Description
vso	
vso	

Action Item: Create the VSO requirements

Team	---
Development Activities	Requirements Elicitation

Each project participant has to create or revise

- actor instances
- scenarios
- actors
- user tasks

- use cases

- nonfunctional requirements

The objects should be consistent and linked together.

Action Item: Das Aurarium wieder in einen benutzbaren Zustand bringen

Team	---
Development Activities	---

Action Item: das Buch "The launch decision" zur Sammlung der verfügbaren Bücher hinzufügen

Team	Project Management
Development Activities	---

Action Item: Decide what kind of classical music encyclopedia should be implemented

Team	Orchestra
Development Activities	System Design

Annotated Elements	Description
4.3. System Design Review	During system design, we identify design goals, decompose the system into subsystems, and refine subsystem decomposition until all design goals are addressed. The goal of the system design review is to verify that the design goals are met by the system design model. We need to ensure that the VSO system design model is correct, complete, consistent, realistic, and readable. Questions to determine if the system design is correct: - Can every subsystem be traced back to a use case or a nonfunctional requierement? - Can every use case be mapped to a set of subsystems? - Can every design goal be traced back to a nonfunctional requirement? Questions to determine if the system design is complete: - Have the boundary conditions been handled? - Was there a walkthrough of the use cases to identify missing functionality in the system design? - Have all use cases been examined and assigned a control object? - Have all aspects of system design been addressed? - Do all subsystems have definitions? Questions to determine if the system design is consistent: - Are conflicting design goals prioritized? - Does any design goal violate a nonfunctional requirement? - Are there multiple subsystems or classes with the same name? - Are collections of objects exchanged among subsystems in a consistent manner? Questions to determine if the system design is realistic: - Was the appropriateness or robustness of included technologies or componentes evaluated? - Have performance and reliability requirements been reviewed in the context of subsystem decomposition? - Have concurrency issues (e.g. contention, deadlocks) been addressed? Questions to determine if the system design is readable: - Are subsystems names understandable? - Do entities with similar names denote similar concepts? - Are all entities described at the same level of detail?

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Action Item: delete this action item

Team	---
Development Activities	---

This action item has only been created to conform to Timos request.

Action Item: Demo des Videoplayers vorbereiten

Team	Video
Development Activities	---

Action Item: Die Constrains festlegen

Team	Audio
Development Activities	---

Diese Aufnahmen und unsere Erfahrungen sollten auch in Punkto erweiterung auf ein gesamtes Orchester betrachtet werden. So zum Beispiel: Background Elimination vs. Bluescreening. Wie würde die Aufnahme ablaufen wenn ca 50 Musiker aufgenommen werden sollen?

Action Item: Discuss software and recording material with audioteam

Team	---
Development Activities	---

discuss what software we should use to synchronize video and audio properly.

Action Item: Ein paar gute Bücher zum Thema TQM zur Bibliothek hinzufügen

Team	Project Management
Development Activities	---

Action Item: Einführung Sysiphus

Team	Tracking
Development Activities	---

prepare introduction to Sysiphus

Action Item: Einweisung der Teams in First Draft of HelloVSO und Basis Implemetation auf Reuse trimmen

Team	---
Development Activities	---

Action Item: Elaborate a clear and non-ambiguous description of the system architecture

Team	---
Development Activities	System Design

Annotated Elements	**Description**
4.3. System Design Review	During system design, we identify design goals, decompose the system into subsystems, and refine subsystem decomposition until all design goals are addressed. The goal of the system design review is to verify that the design goals are met by the system design model. We need to ensure that the VSO system design model is correct, complete, consistent, realistic, and readable. Questions to determine if the system design is correct: - Can every subsystem be traced back to a use case or a nonfunctional requierement? - Can every use case be mapped to a set of subsystems? - Can every design goal be traced back to a nonfunctional requirement? Questions to determine if the system design is complete: - Have the boundary conditions been handled? - Was there a walkthrough of the use cases to identify missing functionality in the system design? - Have all use cases been examined and assigned a control object? - Have all aspects of system design been addressed? - Do all subsystems have definitions? Questions to determine if the system design is consistent: - Are conflicting design goals prioritized? - Does any design goal violate a nonfunctional requirement? - Are there multiple subsystems or classes with the same name? - Are collections of objects exchanged among subsystems in a consistent manner? Questions to determine if the system design is realistic: - Was the appropriateness or robustness of included technologies or componentes evaluated? - Have performance and reliability requirements been reviewed in the context of subsystem decomposition? - Have concurrency issues (e.g. contention, deadlocks) been addressed? Questions to determine if the system design is readable: - Are subsystems names understandable? - Do entities with similar names denote similar concepts? - Are all entities described at the same level of detail?

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Action Item: Erklären, was ein Icebreaker ist

Team	Project Management
Development Activities	---

Action Item: Estimating the sense of merging the project management tasks with the developers tasks

Team	Project Management
Development Activities	---

Action Item: Exchange audio material

Team	---
Development Activities	---

Exchange audio recordings within audio team for backup reasons

Action Item: finalize our part of the system design document

Team	Tracking
Development Activities	System Design

Action Item: Finalize the orchestra analysis model.

Team	Orchestra
Development Activities	Analysis

Finalize the orchestra analysis model. It must be presented on Thursday, 8 December.

Annotated Elements	Description
Orchestra	
Orchestra	

Action Item: Finalize the tracking analysis model.

Team	Tracking
Development Activities	Analysis

Finalize the tracking analysis model. It must be presented on Thursday, 8 December.

Annotated Elements	Description
Tracking	
Tracking	

Action Item: Finalize the user interface analysis model.

Team	User Interface
Development Activities	Analysis

Finalize the user interface analysis model. It must be presented on Thursday, 8 December.

Annotated Elements	Description
UserInterface	
UserInterface	

Action Item: find new proposals for the team description at our vso-portal site

Team	Tracking
Development Activities	---

Action Item: Find out how to get bitmap data out of a CIImage object

Team	Tracking
Development Activities	Implementation

As we can not operate on the pixels of a CIImage object directly, we need a way to convert the CIImage so we can operate on pixels.

Action Item: Get the dv-recorder from the rbg

Team	---
Development Activities	---

go to the rbg and get the dv-recorder.

Action Item: hand out our actual demo to Prof. Bruegge and Demo Team

Team	Tracking
Development Activities	---

Action Item: Implement a CIFilter with the kernel you already finished

Team	Tracking
Development Activities	Implementation

Action Item: implement data export from iTracker to file for our gesture-analysis-session

Team	Tracking
Development Activities	---

Action Item: Import action items

Team	Tracking
Development Activities	---

Import all open action items from last minutes into Sysiphus.

Action Item: Inform the project members about the possibility of using zplane's audio frameworks

Team	Review and Rationale
Development Activities	---

Annotated Elements	Description
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Action Item: Inform the project members about the problems converting video data between PAL-N and NTSC

Team	---
Development Activities	---

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Action Item: Inform the project members about the usage of design patterns in XCode

Team	---
Development Activities	---

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Action Item: Inform your team members about doxygen and its application during the object design phase

Team	Project Management
Development Activities	Object Design

Annotated Elements	Description
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Action Item: Informationen ueber spaeteres Aussehen des Auraiums heraufinden

Team	---
Development Activities	---

Action Item: Infrastruktur zur Aufgabenverteilung bei Präsentationen installieren

Team	Project Management
Development Activities	---

-Infrastruktur zur Aufgabenverteilung bei Präsentationen installieren

-Neue Issues eröffnen, vorhandene ActionItems löschen

-8 Agendas erstellen, Daten aus TWiki Site übernehmen

Action Item: integrate audio subsystem in VSO System

Team	Audio
Development Activities	---

Action Item: iTracker Code von Periklis testen

Team	---
Development Activities	---

Periklis' iTracker-Code anschauen und die Verwendung für unsere Zwecke austesten.

Action Item: Load the demos into the portal

Team	Demo
Development Activities	System Design

Annotated Elements	Description
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Action Item: mail an Prof. Brügge wg. Weitwinkel (Anfrage bei RBG)

Team	Project Management
Development Activities	---

Action Item: Make the CruiseControl scripts available to the developement teams

Team	Demo
Development Activities	---

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Action Item: neue Mailingliste erstellen: Vso-discuss

Team	Project Management
Development Activities	---

Action Item: Passwortschutz für APM-Portal einrichten

Team	Project Management
Development Activities	---

Action Item: pickup-Gerät für die Geige testen oder an Key Märkl weitergeben

Team	Project Management
Development Activities	---

Action Item: post a proposal for an action item table

Team	Project Management
Development Activities	---

Action Item: Post object model of the conductor on mailinglist (application domain)

Team	Tracking
Development Activities	Analysis

Post the parts of the object model you noted down after our modeling discussion.

Action Item: Posting the agenda for the first team meeting

Team	Project Management
Development Activities	---

Action Item: Praktikumsteilnehmer beim nächsten Meeting auf die Dokumente vom Project Management hinweisen

Team	Project Management
Development Activities	---

Action Item: Prepare a demo to show UI functionality like switching view modes, etc.

Team	User Interface
Development Activities	---

Annotated Elements	Description
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Action Item: Prepare a demo using many computers and screens

Team	Video
Development Activities	---

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Action Item: Prepare a DVD with demos that can be presented to the client

Team	Demo
Development Activities	System Design

Annotated Elements	Description
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Action Item: Prepare presentation of the tracking analysis model

Team	Tracking
Development Activities	Analysis

Action Item: Prepare Presentation Phase 3

Team	Video
Development Activities	---

Action Item: Present 3-5 min. Making-Of Material

Team	Orchestra
Development Activities	---

Action Item: Present the Hello VSO application

Team	---
Development Activities	---

Action Item: Present the VSO actor instances and scenarios

Team	---
Development Activities	Requirements Elicitation

Action Item: Present the VSO actors and use cases

Team	---
Development Activities	Requirements Elicitation

Action Item: Present the VSO nonfunctional requirements

Team	---
Development Activities	Requirements Elicitation

Action Item: Provide initial audio recordings on filebruegge

Team	Audio
Development Activities	---

Comments	Description
material ist auf filebruegge verfügbar	eine erste aufnahme ist verfügbar. Die getrennten Aufnahemen mit klick werden noch bearbeitet und sollten dann anfang nächster woche fertig sein.

Action Item: Provide initial video recordings on filebruegge

Team	Video
Development Activities	---

Action Item: Quartz Composer Sample

Team	Tracking
Development Activities	---

Check in the Quartz Composer Sample of the Color Filter

Annotated Elements	Description
Tracking Team	The tracking team provide services for - tracking the baton of the conductor - analyzing gestures (1/2, 3/3, 4/4 measures) - controling the VSO system
Tracking Team	The tracking team provide services for - tracking the baton of the conductor - analyzing gestures (1/2, 3/3, 4/4 measures) - controling the VSO system

Action Item: Reading and evaluating the books offered by Prof. Brügge, which can be found in Monika Markl's office

Team	Project Management
Development Activities	---

Action Item: Rename the videos on the Video Team page so they end on .mov

Team	Video
Development Activities	---

Currently the video files have no extension, so they will be considered textfiles if you download them.

Action Item: rewrite color correction CIFilter to apply to OpenCV data

Team	Tracking
Development Activities	Implementation

Action Item: Scalability Testing

Team	Audio
Development Activities	---

Test how many audio stream can be processed in parallel on which machine?

Comments	Description
Test successful	The iMacs used support up to 24 audio streams if dedicated to that. The testing code provides easy testing of other systems.

Action Item: send JTracker implementation to Peter

Team	Tracking
Development Activities	---

Action Item: send opencvman_old.pdf to tracking-team-mailinglist

Team	Tracking
Development Activities	---

Action Item: Set up a FAQ-Section in Sysiphus

Team	---
Development Activities	---

The FAQ-Section will contain questions and answers regarding modeling and implementation.

Action Item: Set up an action item list regarding xcode settings in twiki

Team	Architecture
Development Activities	---

One of the biggest problems of the project have been the correct XCode settings. They are not known to all members of the course. This list shall help them to configure these settings.

Action Item: Setup the VSO Portal

Team	Project Management
Development Activities	---

The VSO project portal must be created. Each Team should also get a portal page containing team members, agendas, and minutes.

Action Item: Sony 1000 Kamera mitbringen, inkl. Weitwinkel

Team	Project Management
Development Activities	---

Action Item: Specify the audio format, bit depth, encoding type, sample rate, etc, which the system should support

Team	Audio
Development Activities	System Design

s. "3.2.1 Audio"

Annotated Elements	Description
4.3. System Design Review	During system design, we identify design goals, decompose the system into subsystems, and refine subsystem decomposition until all design goals are addressed. The goal of the system design review is to verify that the design goals are met by the system design model. We need to ensure that the VSO system design model is correct, complete, consistent, realistic, and readable. Questions to determine if the system design is correct: - Can every subsystem be traced back to a use case or a nonfunctional requierement? - Can every use case be mapped to a set of subsystems? - Can every design goal be traced back to a nonfunctional requirement? Questions to determine if the system design is complete: - Have the boundary conditions been handled? - Was there a walkthrough of the use cases to identify missing functionality in the system design? - Have all use cases been examined and assigned a control object? - Have all aspects of system design been addressed? - Do all subsystems have definitions? Questions to determine if the system design is consistent: - Are conflicting design goals prioritized? - Does any design goal violate a nonfunctional requirement? - Are there multiple subsystems or classes with the same name? - Are collections of objects exchanged among subsystems in a consistent manner? Questions to determine if the system design is realistic: - Was the appropriateness or robustness of included technologies or componentes evaluated? - Have performance and reliability requirements been reviewed in the context of subsystem decomposition? - Have concurrency issues (e.g. contention, deadlocks) been addressed? Questions to determine if the system design is readable: - Are subsystems names understandable? - Do entities with similar names denote similar concepts? - Are all entities described at the same level of detail?

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Action Item: Stop using CIImage

Team	Tracking
Development Activities	---

Stop using CIImage!(Dead-Lock) and start considering alternatives.

Annotated Elements	Description
2.2.5. Tracking Team Action Items	
2.2.5. Tracking Team Action Items	

Action Item: Sysiphus tutorial slides

Team	---
Development Activities	---

Please publish slides for Sysiphus tutorial meeting at VSO Portal under

http://wwwbruegge.in.tum.de/view/VSO/VSOSchedule

Action Item: Teambeschreibung für APM-Team auf Portalseite posten

Team	Project Management
Development Activities	---

Action Item: test surround environment

Team	Audio
Development Activities	---

test surround sound with external audio card in aurarium.

Action Item: Test your implementations with 10, 20, 80 tracks being played simultaneously

Team	Audio
Development Activities	---

Annotated Elements	Description
4.3. System Design Review	During system design, we identify design goals, decompose the system into subsystems, and refine subsystem decomposition until all design goals are addressed. The goal of the system design review is to verify that the design goals are met by the system design model. We need to ensure that the VSO system design model is correct, complete, consistent, realistic, and readable. Questions to determine if the system design is correct: - Can every subsystem be traced back to a use case or a nonfunctional requierement? - Can every use case be mapped to a set of subsystems? - Can every design goal be traced back to a nonfunctional requirement? Questions to determine if the system design is complete: - Have the boundary conditions been handled? - Was there a walkthrough of the use cases to identify missing functionality in the system design? - Have all use cases been examined and assigned a control object? - Have all aspects of system design been addressed? - Do all subsystems have definitions? Questions to determine if the system design is consistent: - Are conflicting design goals prioritized? - Does any design goal violate a nonfunctional requirement? - Are there multiple subsystems or classes with the same name? - Are collections of objects exchanged among subsystems in a consistent manner? Questions to determine if the system design is realistic: - Was the appropriateness or robustness of included technologies or componentes evaluated? - Have performance and reliability requirements been reviewed in the context of subsystem decomposition? - Have concurrency issues (e.g. contention, deadlocks) been addressed? Questions to determine if the system design is readable: - Are subsystems names understandable? - Do entities with similar names denote similar concepts? - Are all entities described at the same level of detail?

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Comments	Description
successful!	

Action Item: Testing the benefit of acustic dividers

Team	Project Management
Development Activities	---

Action Item: Tracking Team Demo auf Demo Portal Seite

Team	Demo

Development Activities	Testing

Ich habe gehoert, es gibt eine beeindruckende Demo vom Tracking Team.

Bitte diese Demo bis 12.12, Montag abend, auf die Demo Portalseite einstellen.

Action Item: Tutorial in Objective-C und OpenGL

Team	User Interface
Development Activities	---

Durchfuehren zweier kurzen Tutorials in Objective-C und OpenGL

Action Item: Twiki Bild einfuegen

Team	---
Development Activities	---

Action Item: TWiki Bild einfügen

Team	---
Development Activities	---

Action Item: Update the diagram accrding to the review feedback.

Team	---
Development Activities	System Design

Please update the diagram according to the feedback you got during the System Design Review.

Annotated Elements	Description
DistributedAudio	
DistributedAudio	

Action Item: Upload Design Goals presentation to Wiki

Team	---
Development Activities	System Design

Please upload your presentation to the Wiki Review page

http://wwwbruegge.informatik.tu-muenchen.de/view/VSO/VSOReview

Action Item: upload image to apm portal site

Team	Project Management
Development Activities	---

DigiCam available at chair. Maybe we can make a photo-session at the next APM-Meeting? ;-)

Action Item: Upload picture

Team	Tracking
Development Activities	---

Upload the picture on VSO portal.

Action Item: Upload the Hello VSO application to the VSO portal

Team	---
Development Activities	---

Action Item: Upload the Software Control Presentation to the Portal.

Team	---
Development Activities	System Design

Please upload your presentation to the Review Portal page.

http://wwwbruegge.informatik.tu-muenchen.de/view/VSO/VSOReview

Action Item: Upload your photo to the VSO Address Book

Team	Demo
Development Activities	---

Action Item: Use Case Diagram einfügen

Team	---
Development Activities	---

Das Use Case Diagram von Vera in Rat einfügen.

Action Item: Use Case Diagram in Sysiphus stellen

Team	User Interface
Development Activities	---

Action Item: Verbesserung des erstellten Use Case Models

Team	User Interface
Development Activities	Requirements Elicitation

Beim naechsten Teamtreffen wird gemeinschaftlich (die erste Version) des Use Case Model fertiggestellt.

Action Item: Veränderung des Raumklangs im Aurarium durch Molton in Aufnahme-Planung berücksichtigen

Team	Project Management
Development Activities	---

Action Item: Videoplayer in SVN einchecken

Team	Video
Development Activities	---

Action Item: work on object tracking in OpenCV

Team	Tracking
Development Activities	---

find out position of the baton

Action Item: Write the section content of 'Persistent data management'

Team	---
Development Activities	System Design

Please write down the results of the data management review into the section 'Persistent data management'

Annotated Elements	Description
3.2. Persistent data management	Persistent data management describes the persistent data stored by the system and the data management infrastructure required for it. This section includes the description of data schemes, the selection of a database, and the description of the encapsulation of the database.
3.2. Persistent data management	Persistent data management describes the persistent data stored by the system and the data management infrastructure required for it. This section includes the description of data schemes, the selection of a database, and the description of the encapsulation of the database.

Action Item: Übersetzung der VSO-Projekt-Beschreibung finalisieren

Team	---
Development Activities	---

Action Item: Übersetzung der VSO-Projekt-Beschreibung vom Deutschen ins Englische

Team	---
Development Activities	---

Open Issues	Description
mono vs. stereo sources for 3d	What is preferred in terms of performance and output quality: audio or mono? Are there any constraints in the 3d mixer audio unit?

2.2. Development Team Action Items

Sections:

- Video Team Action Items
- Audio Team Action Items
- Orchestra Team Action Action Items
- User Interface Action Items
- Tracking Team Action Items

2.2.1. Video Team Action Items

Action Item: 4705-01 Videoplayer

Team	Video
Development Activities	---

Bis Donnerstag einen kleinen Videoplayer zum Vorführen bauen

Action Item: 4705-03 Videomaterial bearbeiten

Team	Video
Development Activities	---

Bis nächsten Dienstag das Videomaterial digitalisieren, sichten und schonmal versuchen zu keyen

Action Item: 4705-04 Audiotrack identifizieren

Team	Video
Development Activities	---

klären, welche Audiospur online gestellt wurde (erste freie Aufnahme, oder die geklickte?)

Comments	Description
Hi ist die erste freie version	Die 4 spuren mit klick werden noch bearbeitet und sollten am montag fertig sein
erste version	die erste version "VSO Quartet zusammen.aif" wurde ohne Klick eingespielt und ist somit nicht zur Syncronisation mit den Videofiles geeignet.
geklickte version	hi, die geklickte version ist auf filebruegge online
geklickte version	hi, die geklickte version ist auf filebruegge online

Action Item: 4705-05 Belegliste

Team	Video
Development Activities	---

anfragen, dass die Belegliste für das Multimedia-Labor wieder eingeführt wird

Action Item: 4705-06 Video Constraints

Team	Video
Development Activities	---

die Constraints für die Videoaufnahmen in sysiphus hinterlegen

Action Item: 4905-01 Finalize the video analysis model.

Team	Video
Development Activities	Analysis

Finalize the video analysis model. It must be presented on Thursday, 8 December.

Annotated Elements	Description
Video.Solution.Model	Video Subsystem Solution Model
Video.Solution.Model	Video Subsystem Solution Model

Action Item: 4905-02 Videos mit den Musikdateien syncronisieren

Team	Video
Development Activities	---

Video und Audiodateien syncronisieren, so das sie zur selben Zeit anfangen. Evtl. die Videos croppen um Platz zu sparen.

Action Item: 4905-03 Testvideos mit verschiedenen Codecs erstellen

Team	Video
Development Activities	---

Ziel ist die verschiedenen Codecs vergleichen zu können:

Dateigröße,

Bildqualität,

CPU- Last bei Dekomprimierung

Action Item: Associate the video classes to the related components

Team	Video
Development Activities	System Design

Map the classes or packages of video subsystem to the related video components. The 'Components' field of the classes or the 'Object Model Elements' field of the components can be used to create the mapping.

Annotated Elements	Description
Video.Application.Model	Video Subsystem Application Model
Video.Application.Model	Video Subsystem Application Model

Annotated Elements	Description
Video.Solution.Model	Video Subsystem Solution Model

Action Item: Demo des Videoplayers vorbereiten

Team	Video
Development Activities	---

Action Item: Prepare a demo using many computers and screens

Team	Video
Development Activities	---

Annotated Elements	Description
4.3. System Design Review	During system design, we identify design goals, decompose the system into subsystems, and refine subsystem decomposition until all design goals are addressed. The goal of the system design review is to verify that the design goals are met by the system design model. We need to ensure that the VSO system design model is correct, complete, consistent, realistic, and readable. Questions to determine if the system design is correct: - Can every subsystem be traced back to a use case or a nonfunctional requierement? - Can every use case be mapped to a set of subsystems? - Can every design goal be traced back to a nonfunctional requirement? Questions to determine if the system design is complete: - Have the boundary conditions been handled? - Was there a walkthrough of the use cases to identify missing functionality in the system design? - Have all use cases been examined and assigned a control object? - Have all aspects of system design been addressed? - Do all subsystems have definitions? Questions to determine if the system design is consistent: - Are conflicting design goals prioritized? - Does any design goal violate a nonfunctional requirement? - Are there multiple subsystems or classes with the same name? - Are collections of objects exchanged among subsystems in a consistent manner? Questions to determine if the system design is realistic: - Was the appropriateness or robustness of included technologies or componentes evaluated? - Have performance and reliability requirements been reviewed in the context of subsystem decomposition? - Have concurrency issues (e.g. contention, deadlocks) been addressed? Questions to determine if the system design is readable: - Are subsystems names understandable? - Do entities with similar names denote similar concepts? - Are all entities described at the same level of detail?

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Action Item: Prepare Presentation Phase 3

Team	Video
Development Activities	---

Action Item: Provide initial video recordings on filebruegge

Team	Video
Development Activities	---

Action Item: Rename the videos on the Video Team page so they end on .mov

Team	Video
Development Activities	---

Currently the video files have no extension, so they will be considered textfiles if you download them.

Action Item: Videoplayer in SVN einchecken

Team	Video
Development Activities	---

2.2.2. Audio Team Action Items

Action Item: Ask For Copyright Issues

Team	Audio
Development Activities	---

Ist das Online-Stellen von Aufnahmen in rechtlicher Hinsicht bedenklos, oder können dabei Urheberrechte verletzt werden?

Comments	Description
Zwischenlösung	Solange die Urheberrecht-Problemmatik ungeklärt bleibt, soll das Tonmaterial ausschliesslich intern auf dem filebruegge-Server verfügbar sein.
Herr Märkl gibt grünes Licht	die Benutzung unserer Aufnahme fürs Internet ist von unserer Seite kein Problem und ich denke, daß da keine rechtlichen Schwierigkeiten auftreten werden. Viele Grüsse Key Märkl

Action Item: Associate the audio classes to the related components

Team	Audio
Development Activities	System Design

Map the classes or packages of audio subsystem to the related audio components. The 'Components'

field of the classes or the 'Object Model Elements' field of the components can be used to create the mapping.

Annotated Elements	Description
Audio	Audio Subsystem
Audio	Audio Subsystem

Action Item: Change Component dependencies

Team	Audio
Development Activities	System Design

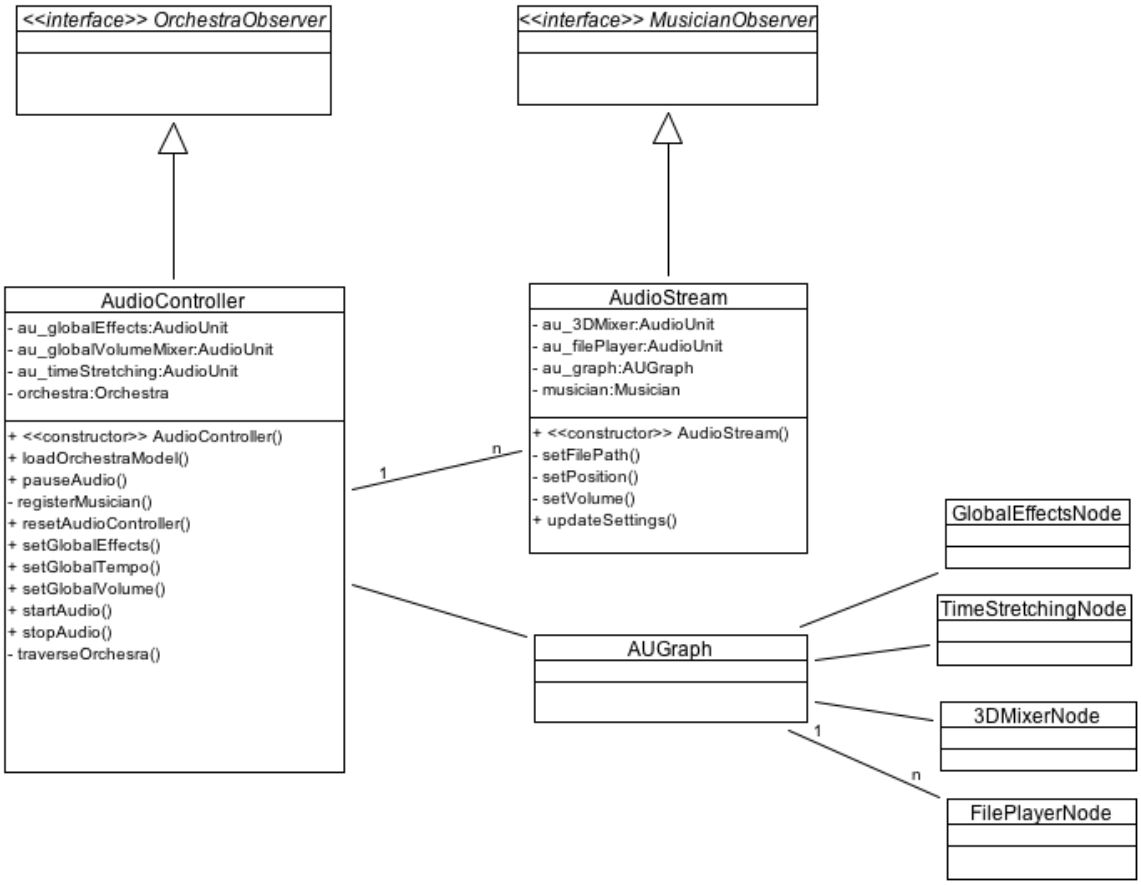
According to the resolved issue, the component dependencies of the Audio component needs to be changed.

Annotated Elements	Description
Does the AudioController really need to use the VideoController?	
Does the AudioController really need to use the VideoController?	

Action Item: Create the analysis model for the audio subsystem

Team	Audio
Development Activities	Analysis

The analysis model for the audio subsystem is still missing. Create the model until thursday, 8 December.



Annotated Elements	Description
vso	
vso	

Action Item: Die Constrains festlegen

Team	Audio
Development Activities	---

Diese Aufnahmen und unsere Erfahrungen sollten auch in Punkto erweiterung auf ein gesamtes Orchester betrachtet werden. So zum Beispiel: Background Elimination vs. Bluescreening. Wie würde die Aufnahme ablaufen wenn ca 50 Musiker aufgenommen werden sollen?

Action Item: integrate audio subsystem in VSO System

Team	Audio
Development Activities	---

Action Item: Provide initial audio recordings on filebruegge

Team	Audio
Development Activities	---

Comments	Description
material ist auf filebruegge verfügbar	eine erste aufnahme ist verfügbar. Die getrennten Aufnahemen mit klick werden noch bearbeitet und sollten dann anfang nächster woche fertig sein.

Action Item: Scalability Testing

Team	Audio
Development Activities	---

Test how many audio stream can be processed in parallel on which machine?

Comments	Description
Test successful	The iMacs used support up to 24 audio streams if dedicated to that. The testing code provides easy testing of other systems.

Action Item: Specify the audio format, bit depth, encoding type, sample rate, etc, which the system should support

Team	Audio
Development Activities	System Design

s. "3.2.1 Audio"

Annotated Elements	Description
4.3. System Design Review	During system design, we identify design goals, decompose the system into subsystems, and refine subsystem decomposition until all design goals are addressed. The goal of the system design review is to verify that the design goals are met by the system design model. We need to ensure that the VSO system design model is correct, complete, consistent, realistic, and readable. Questions to determine if the system design is correct: - Can every subsystem be traced back to a use case or a nonfunctional requierement? - Can every use case be mapped to a set of subsystems? - Can every design goal be traced back to a nonfunctional requirement? Questions to determine if the system design is complete: - Have the boundary conditions been handled? - Was there a walkthrough of the use cases to identify missing functionality in the system design? - Have all use cases been examined and assigned a control object? - Have all aspects of system design been addressed? - Do all subsystems have definitions? Questions to determine if the system design is consistent: - Are conflicting design goals prioritized? - Does any design goal violate a nonfunctional requirement? - Are there multiple subsystems or classes with the same name? - Are collections of objects exchanged among subsystems in a consistent manner? Questions to determine if the system design is realistic: - Was the appropriateness or robustness of included technologies or componentes evaluated? - Have performance and reliability requirements been reviewed in the context of subsystem decomposition? - Have concurrency issues (e.g. contention, deadlocks) been addressed? Questions to determine if the system design is readable: - Are subsystems names understandable? - Do entities with similar names denote similar concepts? - Are all entities described at the same level of detail?

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Action Item: test surround environment

Team	Audio
Development Activities	---

test surround sound with external audio card in aurarium.

Action Item: Test your implementations with 10, 20, 80 tracks being played simultaneously

Team	Audio
Development Activities	---

Annotated Elements	Description
4.3. System Design Review	During system design, we identify design goals, decompose the system into subsystems, and refine subsystem decomposition until all design goals are addressed. The goal of the system design review is to verify that the design goals are met by the system design model. We need to ensure that the VSO system design model is correct, complete, consistent, realistic, and readable. Questions to determine if the system design is correct: - Can every subsystem be traced back to a use case or a nonfunctional requierement? - Can every use case be mapped to a set of subsystems? - Can every design goal be traced back to a nonfunctional requirement? Questions to determine if the system design is complete: - Have the boundary conditions been handled? - Was there a walkthrough of the use cases to identify missing functionality in the system design? - Have all use cases been examined and assigned a control object? - Have all aspects of system design been addressed? - Do all subsystems have definitions? Questions to determine if the system design is consistent: - Are conflicting design goals prioritized? - Does any design goal violate a nonfunctional requirement? - Are there multiple subsystems or classes with the same name? - Are collections of objects exchanged among subsystems in a consistent manner? Questions to determine if the system design is realistic: - Was the appropriateness or robustness of included technologies or componentes evaluated? - Have performance and reliability requirements been reviewed in the context of subsystem decomposition? - Have concurrency issues (e.g. contention, deadlocks) been addressed? Questions to determine if the system design is readable: - Are subsystems names understandable? - Do entities with similar names denote similar concepts? - Are all entities described at the same level of detail?

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Comments	Description
successful!	

2.2.3. Orchestra Team Action Action Items

Action Item: Associate the orchestra classes to the related components

Team	Orchestra
Development Activities	System Design

Map the classes or packages of orchestra subsystem to the related orchestra components. The 'Components' field of the classes or the 'Object Model Elements' field of the components can be used to create the mapping.

Annotated Elements	Description
Orchestra	
Orchestra	

Action Item: Decide what kind of classical music encyclopedia should be implemented

Team	Orchestra
Development Activities	System Design

Annotated Elements	Description
4.3. System Design Review	During system design, we identify design goals, decompose the system into subsystems, and refine subsystem decomposition until all design goals are addressed. The goal of the system design review is to verify that the design goals are met by the system design model. We need to ensure that the VSO system design model is correct, complete, consistent, realistic, and readable. Questions to determine if the system design is correct: - Can every subsystem be traced back to a use case or a nonfunctional requierement? - Can every use case be mapped to a set of subsystems? - Can every design goal be traced back to a nonfunctional requirement? Questions to determine if the system design is complete: - Have the boundary conditions been handled? - Was there a walkthrough of the use cases to identify missing functionality in the system design? - Have all use cases been examined and assigned a control object? - Have all aspects of system design been addressed? - Do all subsystems have definitions? Questions to determine if the system design is consistent: - Are conflicting design goals prioritized? - Does any design goal violate a nonfunctional requirement? - Are there multiple subsystems or classes with the same name? - Are collections of objects exchanged among subsystems in a consistent manner? Questions to determine if the system design is realistic: - Was the appropriateness or robustness of included technologies or componentes evaluated? - Have performance and reliability requirements been reviewed in the context of subsystem decomposition? - Have concurrency issues (e.g. contention, deadlocks) been addressed? Questions to determine if the system design is readable: - Are subsystems names understandable? - Do entities with similar names denote similar concepts? - Are all entities described at the same level of detail?

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Action Item: Finalize the orchestra analysis model.

Team	Orchestra
Development Activities	Analysis

Finalize the orchestra analysis model. It must be presented on Thursday, 8 December.

Annotated Elements	Description
Orchestra	
Orchestra	

Action Item: Present 3-5 min. Making-Of Material

Team	Orchestra
Development Activities	---

2.2.4. User Interface Action Items

Action Item: Associate the user interface classes to the related components

Team	User Interface
Development Activities	System Design

Map the classes or packages of user interface subsystem to the related user interface components. The 'Components' field of the classes or the 'Object Model Elements' field of the components can be used to create the mapping.

Annotated Elements	Description
UserInterface	
UserInterface	

Action Item: Besprechen von Problemen bei OpenGL und Objective C

Team	User Interface
Development Activities	---

Action Item: Finalize the user interface analysis model.

Team	User Interface
Development Activities	Analysis

Finalize the user interface analysis model. It must be presented on Thursday, 8 December.

Annotated Elements	Description
UserInterface	

Annotated Elements	Description
UserInterface	

Action Item: Prepare a demo to show UI functionality like switching view modes, etc.

Team	User Interface
Development Activities	---

Annotated Elements	Description
4.3. System Design Review	During system design, we identify design goals, decompose the system into subsystems, and refine subsystem decomposition until all design goals are addressed. The goal of the system design review is to verify that the design goals are met by the system design model. We need to ensure that the VSO system design model is correct, complete, consistent, realistic, and readable. Questions to determine if the system design is correct: - Can every subsystem be traced back to a use case or a nonfunctional requierement? - Can every use case be mapped to a set of subsystems? - Can every design goal be traced back to a nonfunctional requirement? Questions to determine if the system design is complete: - Have the boundary conditions been handled? - Was there a walkthrough of the use cases to identify missing functionality in the system design? - Have all use cases been examined and assigned a control object? - Have all aspects of system design been addressed? - Do all subsystems have definitions? Questions to determine if the system design is consistent: - Are conflicting design goals prioritized? - Does any design goal violate a nonfunctional requirement? - Are there multiple subsystems or classes with the same name? - Are collections of objects exchanged among subsystems in a consistent manner? Questions to determine if the system design is realistic: - Was the appropriateness or robustness of included technologies or componentes evaluated? - Have performance and reliability requirements been reviewed in the context of subsystem decomposition? - Have concurrency issues (e.g. contention, deadlocks) been addressed? Questions to determine if the system design is readable: - Are subsystems names understandable? - Do entities with similar names denote similar concepts? - Are all entities described at the same level of detail?

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Action Item: Tutorial in Objective-C und OpenGL

Team	User Interface
Development Activities	---

Durchfuehren zweier kurzen Tutorials in Objective-C und OpenGL

Action Item: Use Case Diagram in Sysiphus stellen

Team	User Interface
Development Activities	---

Action Item: Verbesserung des erstellten Use Case Models

Team	User Interface
Development Activities	Requirements Elicitation

Beim naechsten Teamtreffen wird gemeinschaftlich (die erste Version) des Use Case Model fertiggestellt.

2.2.5. Tracking Team Action Items

Action Item: Add missing objects into object model

Team	Tracking
Development Activities	Analysis

Action Item: Add missing scenarios

Team	Tracking
Development Activities	Requirements Elicitation

Action Item: Add missing use cases

Team	Tracking
Development Activities	Requirements Elicitation

Action Item: Add missing user tasks

Team	Tracking
Development Activities	Requirements Elicitation

Action Item: add new model of gesture to analysis object model

Team	Tracking
Development Activities	Analysis

Action Item: analyze exported data from our gesture-analysis-session

Team	Tracking
Development Activities	---

Action Item: Ask Client wether musical pieces with different instrument tempi exist?

Team	Tracking
Development Activities	Requirements Elicitation

Annotated Elements	**Description**
Is this functionality really desirable?	Changing the tempo (BPM) of several musical tracks and than rendering all them simultaneously would lead in most cases to a quite unpleasant sound. (State of the art audio sequencers like ableton live, cubase, logic? etc do not provide such functionality)
Is this functionality really desirable?	Changing the tempo (BPM) of several musical tracks and than rendering all them simultaneously would lead in most cases to a quite unpleasant sound. (State of the art audio sequencers like ableton live, cubase, logic? etc do not provide such functionality)

Action Item: ask friend (who can conduct) if he/she is available for our gesture-analysis-session

Team	Tracking
Development Activities	---

Action Item: Associate the tracking classes to the related components

Team	Tracking

Development Activities	System Design

Map the classes or packages of tracking subsystem to the related tracking components. The 'Components' field of the classes or the 'Object Model Elements' field of the components can be used to create the mapping.

Annotated Elements	Description
Tracking	
Tracking	

Action Item: Change meeting time in webcal

Team	Tracking
Development Activities	---

our meeting time changed, make it public

Action Item: Einführung Sysiphus

Team	Tracking
Development Activities	---

prepare introduction to Sysiphus

Action Item: finalize our part of the system design document

Team	Tracking
Development Activities	System Design

Action Item: Finalize the tracking analysis model.

Team	Tracking
Development Activities	Analysis

Finalize the tracking analysis model. It must be presented on Thursday, 8 December.

Annotated Elements	Description
Tracking	
Tracking	

Action Item: find new proposals for the team description at our vso-portal site

Team	Tracking
Development Activities	---

Action Item: Find out how to get bitmap data out of a CIImage object

Team	Tracking
Development Activities	Implementation

As we can not operate on the pixels of a CIImage object directly, we need a way to convert the CIImage so we can operate on pixels.

Action Item: hand out our actual demo to Prof. Bruegge and Demo Team

Team	Tracking
Development Activities	---

Action Item: Implement a CIFilter with the kernel you already finished

Team	Tracking
Development Activities	Implementation

Action Item: implement data export from iTracker to file for our gesture-analysis-session

Team	Tracking
Development Activities	---

Action Item: Import action items

Team	Tracking
Development Activities	---

Import all open action items from last minutes into Sysiphus.

Action Item: Post object model of the conductor on mailinglist (application domain)

Team	Tracking
Development Activities	Analysis

Post the parts of the object model you noted down after our modeling discussion.

Action Item: Prepare presentation of the tracking analysis model

Team	Tracking
Development Activities	Analysis

Action Item: Quartz Composer Sample

Team	Tracking
Development Activities	---

Check in the Quartz Composer Sample of the Color Filter

Annotated Elements	Description
Tracking Team	The tracking team provide services for - tracking the baton of the conductor - analyzing gestures (1/2, 3/3, 4/4 measures) - controling the VSO system

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Action Item: rewrite color correction CIFilter to apply to OpenCV data

Team	Tracking
Development Activities	Implementation

Action Item: send JTracker implementation to Peter

Team	Tracking
Development Activities	---

Action Item: send opencvman_old.pdf to tracking-team-mailinglist

Team	Tracking
Development Activities	---

Action Item: Stop using CIImage

Team	Tracking
Development Activities	---

Stop using CIImage!(Dead-Lock) and start considering alternatives.

Annotated Elements	Description
2.2.5. Tracking Team Action Items	
2.2.5. Tracking Team Action Items	

Action Item: Upload picture

Team	Tracking
Development Activities	---

Upload the picture on VSO portal.

Action Item: work on object tracking in OpenCV

Team	Tracking
Development Activities	---

find out position of the baton

2.3. Cross-Functional Team Action Items

Sections:

- Architecture Team Action Items
- Innovation Team Action Items
- Project Management Action Items
- Demo Team Action Items
- Rationale Team Action Items

2.3.1. Architecture Team Action Items

Action Item: Allen sagen, dass sie keine binärdateien in das SVN einchecken sollen

Team	Architecture
Development Activities	---

Action Item: Set up an action item list regarding xcode settings in twiki

Team	Architecture
Development Activities	---

One of the biggest problems of the project have been the correct XCode settings. They are not known to all members of the course. This list shall help them to configure these settings.

2.3.2. Innovation Team Action Items

2.3.3. Project Management Action Items

Action Item: Coach Handbuch lesen

Team	Project Management
Development Activities	---

s. http://www.globalse.org/coach

Action Item: Coach Handbuch verfügbar machen

Team	Project Management
Development Activities	---

The coach handbook can be found under this URL

http://www.globalse.org/coach/

Action Item: das Buch "The launch decision" zur Sammlung der verfügbaren Bücher hinzufügen

Team	Project Management
Development Activities	---

Action Item: Ein paar gute Bücher zum Thema TQM zur Bibliothek hinzufügen

Team	Project Management
Development Activities	---

Action Item: Erklären, was ein Icebreaker ist

Team	Project Management
Development Activities	---

Action Item: Estimating the sense of merging the project management tasks with the developers tasks

Team	Project Management
Development Activities	---

Action Item: Inform your team members about doxygen and its application during the object design phase

Team	Project Management
Development Activities	Object Design

Annotated Elements	Description
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Action Item: Infrastruktur zur Aufgabenverteilung bei Präsentationen installieren

Team	Project Management
Development Activities	---

-Infrastruktur zur Aufgabenverteilung bei Präsentationen installieren

-Neue Issues eröffnen, vorhandene ActionItems löschen

-8 Agendas erstellen, Daten aus TWiki Site übernehmen

Action Item: mail an Prof. Brügge wg. Weitwinkel (Anfrage bei RBG)

Team	Project Management
Development Activities	---

Action Item: neue Mailingliste erstellen: Vso-discuss

Team	Project Management
Development Activities	---

Action Item: Passwortschutz für APM-Portal einrichten

Team	Project Management
Development Activities	---

Action Item: pickup-Gerät für die Geige testen oder an Key Märkl weitergeben

Team	Project Management
Development Activities	---

Action Item: post a proposal for an action item table

Team	Project Management
Development Activities	---

Action Item: Posting the agenda for the first team meeting

Team	Project Management
Development Activities	---

Action Item: Praktikumsteilnehmer beim nächsten Meeting auf die Dokumente vom Project Management hinweisen

Team	Project Management

Development Activities	---

Action Item: Reading and evaluating the books offered by Prof. Brügge, which can be found in Monika Markl's office

Team	Project Management
Development Activities	---

Action Item: Setup the VSO Portal

Team	Project Management
Development Activities	---

The VSO project portal must be created. Each Team should also get a portal page containing team members, agendas, and minutes.

Action Item: Sony 1000 Kamera mitbringen, inkl. Weitwinkel

Team	Project Management
Development Activities	---

Action Item: Teambeschreibung für APM-Team auf Portalseite posten

Team	Project Management
Development Activities	---

Action Item: Testing the benefit of acustic dividers

Team	Project Management
Development Activities	---

Action Item: upload image to apm portal site

Team	Project Management
Development Activities	---

DigiCam available at chair. Maybe we can make a photo-session at the next APM-Meeting? ;-)

Action Item: Veränderung des Raumklangs im Aurarium durch Molton in Aufnahme-Planung berücksichtigen

Team	Project Management
Development Activities	---

2.3.4. Demo Team Action Items

Action Item: Complete the team-homepage

Team	Demo
Development Activities	---

The team-homepage must be complited with photos.

Action Item: Contact client for feedback about recorded audio files

Team	Demo
Development Activities	---

Action Item: Load the demos into the portal

Team	Demo
Development Activities	System Design

Annotated Elements	Description
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Action Item: Make the CruiseControl scripts available to the developement teams

Team	Demo
Development Activities	---

Annotated Elements	Description
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Action Item: Prepare a DVD with demos that can be presented to the client

Team	Demo
Development Activities	System Design

Annotated Elements	Description
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Action Item: Tracking Team Demo auf Demo Portal Seite

Team	Demo
Development Activities	Testing

Ich habe gehoert, es gibt eine beeindruckende Demo vom Tracking Team.

Bitte diese Demo bis 12.12, Montag abend, auf die Demo Portalseite einstellen.

Action Item: Upload your photo to the VSO Address Book

Team	Demo
Development Activities	---

2.3.5. Rationale Team Action Items

Action Item: Add Issues and Action Items from System Design Review into Sysiphus

Team	Review and Rationale
Development Activities	System Design

Please add the identified issues and action items of the system design review into Sysiphus.

Action Item: Add nonfuncational requirement item: Avoid of video dropouts

Team	Review and Rationale
Development Activities	---

Annotated Elements	Description
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Action Item: Inform the project members about the possibility of using zplane's audio frameworks

Team	Review and Rationale
Development Activities	---

Annotated Elements	Description
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4.3. System Design Review	During system design, we identify design goals, decompose the system into subsystems, and refine subsystem decomposition until all design goals are addressed. The goal of the system design review is to verify that the design goals are met by the system design model. We need to ensure that the VSO system design model is correct, complete, consistent, realistic, and readable. Questions to determine if the system design is correct: - Can every subsystem be traced back to a use case or a nonfunctional requierement? - Can every use case be mapped to a set of subsystems? - Can every design goal be traced back to a nonfunctional requirement? Questions to determine if the system design is complete: - Have the boundary conditions been handled? - Was there a walkthrough of the use cases to identify missing functionality in the system design? - Have all use cases been examined and assigned a control object? - Have all aspects of system design been addressed? - Do all subsystems have definitions? Questions to determine if the system design is consistent: - Are conflicting design goals prioritized? - Does any design goal violate a nonfunctional requirement? - Are there multiple subsystems or classes with the same name? - Are collections of objects exchanged among subsystems in a consistent manner? Questions to determine if the system design is realistic: - Was the appropriateness or robustness of included technologies or componentes evaluated? - Have performance and reliability requirements been reviewed in the context of subsystem decomposition? - Have concurrency issues (e.g. contention, deadlocks) been addressed? Questions to determine if the system design is readable: - Are subsystems names understandable? - Do entities with similar names denote similar concepts? - Are all entities described at the same level of detail?

3 Issues

Sections:

- All Issues
- Development Team Issues
- Cross Function Team Issues

3.1. All Issues

Issue: Classnames should be in singular form

Issue Type	Correctness Issue
Team	---
Development Activities	Analysis

Resolution: *Resolved*

Classname is now singular

Proposals	Description
Resolved	Classname is now singular

Issue: Does the AudioController really need to use the VideoController?

Issue Type	Justification
Team	Audio
Development Activities	System Design

Resolution: *not necessary*

The AudioController does not need to use the VideoController. The only interaction between audio and video concerns synchronization, but the time stamps could be passed via the orchestra component.

Proposals	Description
not necessary	The AudioController does not need to use the VideoController. The only interaction between audio and video concerns synchronization, but the time stamps could be passed via the orchestra component.

Annotated Elements	Description
AudioController	
AudioController	

Open Action Items	Description
Change Component dependencies	According to the resolved issue, the component dependencies of the Audio component needs to be changed.

Issue: Find a better name for this Actor

Issue Type	Form Issue
Team	---
Development Activities	---

Actors and use cases are used to model the interaction between the users of a system and the system itself.

Therefore, System is a very bad name for an actor. In some cases, we use an actor to model independent behavior of a system. The name must be very clear for this case.

Resolution: ---

Proposals	Description
Teacher	The system actor seems to be a virtual teacher.
User Input Evaluation System	
Conducting Trainer	
Teacher	I like Timos Proposal. There should be a function in sysiphus to vote for proposals

Annotated Elements	Description
User Input Evaluation System	
User Input Evaluation System	

Issue: How great is the latency between the conducting gesture of the Conductor and the reaction of the virtual orchestra?

Issue Type	Question
Team	Tracking
Development Activities	Requirements Elicitation

Resolution: *static latency*

A predefined reaction time exists

Proposals	Description
The virtual orchestra instantaneously responds to the gestures of the conductor	
static latency	A predefined reaction time exists
latency depends on user skills	a professional user has a shorter latency setting than a novice user

Criterions	Description
Ease of Use	Every user older than 7 years of age should be able to conduct the orchestra.

Assessment	Ease of Use
The virtual orchestra instantaneously responds to the gestures of the conductor	
static latency	
latency depends on user skills	++

Issue: How many different conducting gestures should be available in the system?

Issue Type	Question
Team	Tracking
Development Activities	Requirements Elicitation

This issue affects conducting gestures representing measures: How many differen measures should be recognized by the system? (2/4,3/4,4/4,3/8,6/8.....)

Resolution: ---

Proposals	Description
only the measures x/4 are recognized	
the measures 2/4,3/4,4/4,3/8,6/8 are recognized	
The One, Two, Three and the Four-Pattern should be recognized	the Conductor makes the same movements for a 3/4 and 3/8 meassure: a Three-Pattern. In fact he can also do a One-Pattern for every kind of meassure, i. e. if the music is gone very fast

Criterions	Description
Ease of Use	Every user older than 7 years of age should be able to conduct the orchestra.

Assessment	Ease of Use
only the measures x/4 are recognized	++
the measures 2/4,3/4,4/4,3/8,6/8 are recognized	+
The One, Two, Three and the Four-Pattern should be recognized	

Annotated Elements	Description
High accuracy	95% of the different gestures should be recognized correctly
High accuracy	95% of the different gestures should be recognized correctly

Issue: How should the musicians be recorded?

Issue Type	Question
Team	Audio

Development Activities	---

How should the musicians be recorded to get one single audio track per musician.

Resolution: *Separate recording of each musician*

Each musician gets a metronome beat while he is being recorded (without the others).

Proposals	Description
Pickup	Each musician should use a pickup for recording his instrument.
Separate recording of each musician	Each musician gets a metronome beat while he is being recorded (without the others).
Use mobile Plexiglas walls between the musicians	Separating the musicians with sound walls could increase the audio quality.
Use paperboard funnel to make the microphones behave more like directional microphones	This proposal was made by our customer, Key Märkl.

Issue: How to include external resources to a Xcode framework project?

Issue Type	FAQ
Team	---
Development Activities	Implementation

When a framework project is used, all external used resources needs to be available within the project.

Resolution: ---

Issue: How to realize the training scenario?

Issue Type	Question
Team	---
Development Activities	Requirements Elicitation

Resolution: ---

Proposals	Description
If the conductor makes too many false gestures, the audio playback get distorted.	
If the conductor makes too many false gestures, the video gets distorted.	The Audio Team could supply a distortion filter that influences the audio playback if the gesture of the conductor diverges too much from what could be acceptet as a correct conducting gesture.
Learning by drawing	Es wäre möglich, da das dirigeriende Kind auch aufgenommen wird, sein im winde gezeichnete Muster auf einen zweiten Layer auf der Orchesta-Anzeige etwas transparenter zu zeichnen. Neben seiner Zeichnung wird noch vom system das perfekte Muster gezeichnet
While conducting the orchestra, the Conductor sees his own gestures in a seperate view (see the Learning by Drawing proposal)	
Separate training session	I actually think that the kid schould only be trained on how to performe a given gesture. So it would be the kid alone performing gestures to the system and simultaneosly the system would give a given pattern in orther for the kid to learn it. For example the 3/4 Takt.

Criterions	Description
Ease of Use	Every user older than 7 years of age should be able to conduct the orchestra.

Assessment	Ease of Use
If the conductor makes too many false gestures, the audio playback get distorted.	
If the conductor makes too many false gestures, the video gets distorted.	
Learning by drawing	
While conducting the orchestra, the Conductor sees his own gestures in a seperate view (see the Learning by Drawing proposal)	
Separate training session	

Annotated Elements	Description
Training	Wolle wants to train his skills in conducting. He starts VSO and selects the traning mode. After selecting a difficulty level the orchestra plays at a given speed and volume. The speed and volume of the orchestra changes during playback and the conductor has to adapt the speed. In lower diffcult levels an instant feedback is presented to Wolle, to show him the speed and volume he is conducting. After the song is finished or if Wolle wants to quit, an information panel is displayed, presenting information about accuracy and timing of the conductor.
Training	Wolle wants to train his skills in conducting. He starts VSO and selects the traning mode. After selecting a difficulty level the orchestra plays at a given speed and volume. The speed and volume of the orchestra changes during playback and the conductor has to adapt the speed. In lower diffcult levels an instant feedback is presented to Wolle, to show him the speed and volume he is conducting. After the song is finished or if Wolle wants to quit, an information panel is displayed, presenting information about accuracy and timing of the conductor.

Issue: Is an intervention by Heinz necessary?

Issue Type	Question
Team	---
Development Activities	Requirements Elicitation

Resolution: ---

Proposals	Description
Automatic Recording, Manual Burning	Every conducted piece could be recorded. We only need to record the data representing the input of the user. The conducted piece could afterwards, if the user wishes to burn it to cd, be recalculated. If we think of an exhibitional environment there could be some kind of an souvenir shop selling these cds.

Annotated Elements	Description
Conductor creates a recorded session	1. After a long practise session Wolle is very proud of his conducting skills and informs Heinz that he wants to record his version of the song. 2. Heinz logs into the admin section and starts the record funcion. Heinz presses start and the system confirms that record is started. 3. Wolle conducts until the song is finished. 4. Heinz stops recording. The system confirms that the recording session was successful. 5. Heinz burns a cd with the recorded files for Wolle.
Conductor creates a recorded session	1. After a long practise session Wolle is very proud of his conducting skills and informs Heinz that he wants to record his version of the song. 2. Heinz logs into the admin section and starts the record funcion. Heinz presses start and the system confirms that record is started. 3. Wolle conducts until the song is finished. 4. Heinz stops recording. The system confirms that the recording session was successful. 5. Heinz burns a cd with the recorded files for Wolle.

Issue: Is this functionality really desirable?

Issue Type	Question
Team	---
Development Activities	Requirements Elicitation

Changing the tempo (BPM) of several musical tracks and than rendering all them simultaneously would lead in most cases to a quite unpleasant sound.

(State of the art audio sequencers like ableton live, cubase, logic? etc do not provide such functionality)

Resolution: ---

Proposals	Description
No	
Yes	
Maybe	
Don't Know	

Annotated Elements	Description
Changing the tempo of a part of the orchestra (CM)	
Changing the tempo of a part of the orchestra (CM)	

Issue: mono vs. stereo sources for 3d

Issue Type	Question
Team	---
Development Activities	---

What is preferred in terms of performance and output quality: audio or mono? Are there any constraints in the 3d mixer audio unit?

Resolution: ---

Annotated Elements	Description
2.1. All Action Items	
2.1. All Action Items	

Issue: Should this function be available for the Conductor?

Issue Type	Question
Team	---
Development Activities	---

Resolution: ---

Issue: Should we specify Mac OS X 10.4 or later as target environmet?

Issue Type	Question
Team	---
Development Activities	---

CoreVideo and CoreAudio are components available since 10.4.x and better.

Resolution: ---

Annotated Elements	Description
Target Environment	The VSO system runs on MacOS X.

Annotated Elements	Description
Target Environment	The VSO system runs on MacOS X.

Issue: Should Wolle conduct while walking through the orchestra?

Issue Type	Question
Team	---
Development Activities	Requirements Elicitation

How shall it be possible to conduct the orchestra while walking through it?

How could Wolle control the walking direction if his hands and gestures are already in use for conducting?

Resolution: ---

Proposals	Description
Clearly not	For the tracking team would it be too difficult and it doesn´t make so much sense eather. The walking through scenario was only a thought for showing the capabilities of modern technology but not in orther to let the conductor take a walk while conducting.
Not Wolle but the Horatio should be able to walk.	Horatio the Listener should be able to walk through the orchestra while Wolle is conducting.

Annotated Elements	Description
Conductor walks through orchestra	1. Wolle decides to walk around the orchestra to get a better impression how the different instruments sound. He starts making gestures while conducting. 2. Wolle first visits the first violine for a while. Then he walks to the back and listens to the drummers. And in the end he has a closer look at cello.
Conductor walks through orchestra	1. Wolle decides to walk around the orchestra to get a better impression how the different instruments sound. He starts making gestures while conducting. 2. Wolle first visits the first violine for a while. Then he walks to the back and listens to the drummers. And in the end he has a closer look at cello.
Horatio (Listener)	A fan of classic music.

Issue: The definition of the word gesture

Issue Type	Ambiguity Issue
Team	---
Development Activities	Requirements Elicitation

There are many types of gestures that should be recognized by the system. How can we define a taxonomy of gestures that includes all gestures within our system?

- gestures representing measures

- gestures influencing volume and speed

- gestures that point at certain directions

Besides that, there is an ambiguity with the gestures the user actually makes and the abstract, ideal gestures that the user gesture should match.

Resolution: ---

Issue: Walking through the orchestra: is it possible?

Issue Type	Question
Team	Project Management
Development Activities	Requirements Elicitation

To walk through the orchestra, we need

- 3d-models of each musician and

- 3d-model of the concert-hall

But we can not render the musician-models from different points of view using standard video cameras. So what?

Resolution: ---

Proposals	Description
Delete this requiriment	looks too hard to be possible
Interactive 360 degree panorama video system	Special lens configurations enable video to be shot in 360 degrees. Software like Quicktime VR moves the photographic images BUT ALSO VIDEO STREAMS from the flat 2D world into the definitive immersive experience ? complete with 3D imagery and interactive components.

Annotated Elements	Description
Walk through musicians	The conductor walks through the virtual room while the musicans are playing. Video and Sound are changing according to his position. He controls the walk via gestures.
Walking through the orchestra	
Walking through the orchestra	

Issue: What does "Preparing the recording of the conductor" mean?

Issue Type	Question
Team	---
Development Activities	Requirements Elicitation

Resolution: ---

Proposals	Description
Adjusting the camera when installing the system	
Calibrating the camera for the tracking of the conducting baton.	

Annotated Elements	Description
Administrator	The Administrator sets the audio and video configurations: add or removes songs,sets the bass, the volume, prepares the recording of the conductor while conducting etc.
Administrator	The Administrator sets the audio and video configurations: add or removes songs,sets the bass, the volume, prepares the recording of the conductor while conducting etc.

Issue: What is the answer to life, the universe and everything?

Issue Type	Question
Team	Innovation
Development Activities	---

:-)

Resolution: ---

Annotated Elements	Description
BendVertex	
BendVertex	

Issue: What is the difference between a musician group and an ensemble?

Issue Type	Question
Team	---
Development Activities	Analysis

Wikipedia definition of musical ensemble:

"a group of three or more musicians who gather to perform music"

Is there any special reason for having this distinction here?

Resolution: *Explanation*

The term ensemle denotes the orchestra as a whole. However, we can further divide it into the categories strings, winds, etc.

This disticition allows it to modify all strings or winds of an orchestra in terms of volume, position, etc.

Proposals	Description
Explanation	The term ensemle denotes the orchestra as a whole. However, we can further divide it into the categories strings, winds, etc. This disticition allows it to modify all strings or winds of an orchestra in terms of volume, position, etc.

Annotated Elements	Description
MusicianGroup	
MusicianGroup	

Issue: What is the difference between MusicInstrument and Instrument?

Issue Type	Question

Team	---
Development Activities	Analysis

Asumming there is a design reason for having these two different classes. Why are both abstract?

What about just using the 1 to * aggregation, which is already defined in the model, without the composite association?

Resolution: ---

Annotated Elements	Description
MusicInstrument	
MusicInstrument	
Instrument	

Issue: What is the role of the virtual conductor?

Issue Type	Question
Team	---
Development Activities	Analysis

What does the virtual conductor do?

Resolution: ---

Annotated Elements	Description
VirtualConductor	The Conductor class holds information about the parameters of the virtual conductor, like position and viewing volume.
VirtualConductor	The Conductor class holds information about the parameters of the virtual conductor, like position and viewing volume.

Issue: What other languages should be used?

Issue Type	Question
Team	---
Development Activities	---

Resolution: *None*

None

Proposals	Description
None	None

Annotated Elements	Description
Implementation languages	The Implementation languages should be Objective-C, C and C++ as they can be mixed at will. Objective-C is the prefered language, C and C++ should only be used whenever it is necessary, for example when working with CoreAudio.
Implementation languages	The Implementation languages should be Objective-C, C and C++ as they can be mixed at will. Objective-C is the prefered language, C and C++ should only be used whenever it is necessary, for example when working with CoreAudio.

Comments	Description
Should read what languaguages besides C dialects (Obj-C, plain C, C++) should be used?	The C dialects should be used because of the frameworks provided by Apple: CoreImage (fast image processing) CoreVideo (high performance video, OpenGL interoperability) CoreAudio (very good time stretching algorithm) besides, speaking for the Tracking team, we might want to use OpenCV (image processing, object recognition, object tracking....), which is a C framework too.

Issue: What should be the right name for ConcreteInstrument?

Issue Type	Question
Team	---
Development Activities	---

There is no such thing as a ConcreteInstrument in music! (You are in analysis, think application domain, not solution domain

Hint: How would the musicians call this? I think they would call this Instrument, which means you have to find another name for the abstraction Instruments)

Also, ConcreteInstrument - of course I mean the new name - should be an abstract class (there are a lot of different instruments!)

Resolution: ---

Issue: Who will do the Concurrency and Hardware / Software Mapping Presentation?

Issue Type	Question
Team	---
Development Activities	---

Resolution: *Christian Kern*

Proposals	**Description**
Christian Kern	

Annotated Elements	**Description**
4.3. System Design Review	During system design, we identify design goals, decompose the system into subsystems, and refine subsystem decomposition until all design goals are addressed. The goal of the system design review is to verify that the design goals are met by the system design model. We need to ensure that the VSO system design model is correct, complete, consistent, realistic, and readable. Questions to determine if the system design is correct: - Can every subsystem be traced back to a use case or a nonfunctional requierement? - Can every use case be mapped to a set of subsystems? - Can every design goal be traced back to a nonfunctional requirement? Questions to determine if the system design is complete: - Have the boundary conditions been handled? - Was there a walkthrough of the use cases to identify missing functionality in the system design? - Have all use cases been examined and assigned a control object? - Have all aspects of system design been addressed? - Do all subsystems have definitions? Questions to determine if the system design is consistent: - Are conflicting design goals prioritized? - Does any design goal violate a nonfunctional requirement? - Are there multiple subsystems or classes with the same name? - Are collections of objects exchanged among subsystems in a consistent manner? Questions to determine if the system design is realistic: - Was the appropriateness or robustness of included technologies or componentes evaluated? - Have performance and reliability requirements been reviewed in the context of subsystem decomposition? - Have concurrency issues (e.g. contention, deadlocks) been addressed? Questions to determine if the system design is readable: - Are subsystems names understandable? - Do entities with similar names denote similar concepts? - Are all entities described at the same level of detail?

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Issue: Who will do the concurrency presentation?

Issue Type	Question
Team	---
Development Activities	System Design

Resolution: *Christian Kern*

Proposals	Description
Christian Kern	

Issue: Who will do the Design Goals and Subsystem Decomposition Presentation?

Issue Type	Question
Team	---
Development Activities	---

Resolution: *New Proposal*

Proposals	**Description**
Bakr Albatran	

Annotated Elements	**Description**
4.3. System Design Review	During system design, we identify design goals, decompose the system into subsystems, and refine subsystem decomposition until all design goals are addressed. The goal of the system design review is to verify that the design goals are met by the system design model. We need to ensure that the VSO system design model is correct, complete, consistent, realistic, and readable. Questions to determine if the system design is correct: - Can every subsystem be traced back to a use case or a nonfunctional requierement? - Can every use case be mapped to a set of subsystems? - Can every design goal be traced back to a nonfunctional requirement? Questions to determine if the system design is complete: - Have the boundary conditions been handled? - Was there a walkthrough of the use cases to identify missing functionality in the system design? - Have all use cases been examined and assigned a control object? - Have all aspects of system design been addressed? - Do all subsystems have definitions? Questions to determine if the system design is consistent: - Are conflicting design goals prioritized? - Does any design goal violate a nonfunctional requirement? - Are there multiple subsystems or classes with the same name? - Are collections of objects exchanged among subsystems in a consistent manner? Questions to determine if the system design is realistic: - Was the appropriateness or robustness of included technologies or componentes evaluated? - Have performance and reliability requirements been reviewed in the context of subsystem decomposition? - Have concurrency issues (e.g. contention, deadlocks) been addressed? Questions to determine if the system design is readable: - Are subsystems names understandable? - Do entities with similar names denote similar concepts? - Are all entities described at the same level of detail?

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Issue: Who will do the Hardware/Software mapping presentation?

Issue Type	Question
Team	---
Development Activities	System Design

Resolution: *Christian Kern*

Proposals	Description
Christian Kern	

Issue: Who will do the packages presentation?

Issue Type	Question
Team	---
Development Activities	Object Design

Resolution: ---

Annotated Elements	Description
4.4. Object Design Review	
4.4. Object Design Review	

Issue: Who will do the Persistent Data Management Presentation?

Issue Type	Question
Team	---
Development Activities	---

Resolution: *New Proposal*

I can do that (Daniel Angermeier)

Proposals	Description
New Proposal	I can do that (Daniel Angermeier)

Annotated Elements	Description
4.3. System Design Review	During system design, we identify design goals, decompose the system into subsystems, and refine subsystem decomposition until all design goals are addressed. The goal of the system design review is to verify that the design goals are met by the system design model. We need to ensure that the VSO system design model is correct, complete, consistent, realistic, and readable. Questions to determine if the system design is correct: - Can every subsystem be traced back to a use case or a nonfunctional requierement? - Can every use case be mapped to a set of subsystems? - Can every design goal be traced back to a nonfunctional requirement? Questions to determine if the system design is complete: - Have the boundary conditions been handled? - Was there a walkthrough of the use cases to identify missing functionality in the system design? - Have all use cases been examined and assigned a control object? - Have all aspects of system design been addressed? - Do all subsystems have definitions? Questions to determine if the system design is consistent: - Are conflicting design goals prioritized? - Does any design goal violate a nonfunctional requirement? - Are there multiple subsystems or classes with the same name? - Are collections of objects exchanged among subsystems in a consistent manner? Questions to determine if the system design is realistic: - Was the appropriateness or robustness of included technologies or componentes evaluated? - Have performance and reliability requirements been reviewed in the context of subsystem decomposition? - Have concurrency issues (e.g. contention, deadlocks) been addressed? Questions to determine if the system design is readable: - Are subsystems names understandable? - Do entities with similar names denote similar concepts? - Are all entities described at the same level of detail?

Annotated Elements	Description
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Issue: Who will do the Software Control Flow Presentation?

Issue Type	Question
Team	---
Development Activities	---

Resolution: *Christian Schröder*

Proposals	Description
Christian Schröder	

Annotated Elements	Description
4.3. System Design Review	During system design, we identify design goals, decompose the system into subsystems, and refine subsystem decomposition until all design goals are addressed. The goal of the system design review is to verify that the design goals are met by the system design model. We need to ensure that the VSO system design model is correct, complete, consistent, realistic, and readable. Questions to determine if the system design is correct: - Can every subsystem be traced back to a use case or a nonfunctional requierement? - Can every use case be mapped to a set of subsystems? - Can every design goal be traced back to a nonfunctional requirement? Questions to determine if the system design is complete: - Have the boundary conditions been handled? - Was there a walkthrough of the use cases to identify missing functionality in the system design? - Have all use cases been examined and assigned a control object? - Have all aspects of system design been addressed? - Do all subsystems have definitions? Questions to determine if the system design is consistent: - Are conflicting design goals prioritized? - Does any design goal violate a nonfunctional requirement? - Are there multiple subsystems or classes with the same name? - Are collections of objects exchanged among subsystems in a consistent manner? Questions to determine if the system design is realistic: - Was the appropriateness or robustness of included technologies or componentes evaluated? - Have performance and reliability requirements been reviewed in the context of subsystem decomposition? - Have concurrency issues (e.g. contention, deadlocks) been addressed? Questions to determine if the system design is readable: - Are subsystems names understandable? - Do entities with similar names denote similar concepts? - Are all entities described at the same level of detail?

Annotated Elements	Description
4.3. System Design Review	During system design, we identify design goals, decompose the system into subsystems, and refine subsystem decomposition until all design goals are addressed. The goal of the system design review is to verify that the design goals are met by the system design model. We need to ensure that the VSO system design model is correct, complete, consistent, realistic, and readable. Questions to determine if the system design is correct: - Can every subsystem be traced back to a use case or a nonfunctional requierement? - Can every use case be mapped to a set of subsystems? - Can every design goal be traced back to a nonfunctional requirement? Questions to determine if the system design is complete: - Have the boundary conditions been handled? - Was there a walkthrough of the use cases to identify missing functionality in the system design? - Have all use cases been examined and assigned a control object? - Have all aspects of system design been addressed? - Do all subsystems have definitions? Questions to determine if the system design is consistent: - Are conflicting design goals prioritized? - Does any design goal violate a nonfunctional requirement? - Are there multiple subsystems or classes with the same name? - Are collections of objects exchanged among subsystems in a consistent manner? Questions to determine if the system design is realistic: - Was the appropriateness or robustness of included technologies or componentes evaluated? - Have performance and reliability requirements been reviewed in the context of subsystem decomposition? - Have concurrency issues (e.g. contention, deadlocks) been addressed? Questions to determine if the system design is readable: - Are subsystems names understandable? - Do entities with similar names denote similar concepts? - Are all entities described at the same level of detail?

Issue: Who will do the software control presentation?

Issue Type	Question
Team	---
Development Activities	System Design

Resolution: *Christian Schröder*

Proposals	Description
Christian Schröder	

Issue: Who will do the system decomposition presentation?

Issue Type	Question
Team	---
Development Activities	System Design

Resolution: *Bakr Albatran*

Proposals	Description
Bakr Albatran	

Issue: Who will present the actor instances and scenarios?

Issue Type	Question
Team	---
Development Activities	Requirements Elicitation

Participants wishing to propose themselves should do it until 22 Nov 05

Resolution: *Christoph Teschner*

Proposals	Description
Christoph Teschner	

Annotated Elements	Description
4.1. Requirements Review	The requirements elicitation's goal is to describe the purpose of the system focusing only on the user?s view of it. The project participants have identifyed the problem area and defined a system that addresses the problem. A first draft of the Requirements Analysis Document (RAD) has been released using Sysiphus. In the requirements review meeting the main goal will be to analyse, discuss and verify the results obtained during the requirements elicitation process. Requirements Review Checklist - Is the model correct?; Does it represent the client's view of the system? - Is the model consistent? - Is it unambiguous? - Is it realistic? Syntactical check of the models - Check for consistent naming of classes, attributes, methods in different subsystems - Identify dangling associations (?pointing to nowhere?) - Identify double-defined classes - Identify missing classes (mentioned in one model but not defined anywhere) - Check for classes with the same name but different meanings

Annotated Elements	Description
4.1. Requirements Review	The requirements elicitation's goal is to describe the purpose of the system focusing only on the user?s view of it. The project participants have identifyed the problem area and defined a system that addresses the problem. A first draft of the Requirements Analysis Document (RAD) has been released using Sysiphus. In the requirements review meeting the main goal will be to analyse, discuss and verify the results obtained during the requirements elicitation process. Requirements Review Checklist - Is the model correct?; Does it represent the client's view of the system? - Is the model consistent? - Is it unambiguous? - Is it realistic? Syntactical check of the models - Check for consistent naming of classes, attributes, methods in different subsystems - Identify dangling associations (?pointing to nowhere?) - Identify double-defined classes - Identify missing classes (mentioned in one model but not defined anywhere) - Check for classes with the same name but different meanings

Issue: Who will present the actors and use cases?

Issue Type	Question
Team	---
Development Activities	Requirements Elicitation

Participants wishing to propose themselves should do it until 22 Nov 05

Resolution: *Christian Schröder*

Proposals	Description
Christian Schröder	

Annotated Elements	Description
4.1. Requirements Review	The requirements elicitation's goal is to describe the purpose of the system focusing only on the user?s view of it. The project participants have identifyed the problem area and defined a system that addresses the problem. A first draft of the Requirements Analysis Document (RAD) has been released using Sysiphus. In the requirements review meeting the main goal will be to analyse, discuss and verify the results obtained during the requirements elicitation process. Requirements Review Checklist - Is the model correct?; Does it represent the client's view of the system? - Is the model consistent? - Is it unambiguous? - Is it realistic? Syntactical check of the models - Check for consistent naming of classes, attributes, methods in different subsystems - Identify dangling associations (?pointing to nowhere?) - Identify double-defined classes - Identify missing classes (mentioned in one model but not defined anywhere) - Check for classes with the same name but different meanings
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Issue: Who will present the analysis model of the audio team?

Issue Type	Question
Team	Audio
Development Activities	Analysis

Each team has to present its analysis model. Who will do it for the audio team?

Resolution: *Dimitri Alexeev*

Ich kann's machen.

Proposals	Description
Dimitri Alexeev	Ich kann's machen.

Issue: Who will present the analysis model of the orchestra team?

Issue Type	Question
Team	Orchestra
Development Activities	Analysis

Each team has to present its analysis model. Who will do it for the orchestra team?

Resolution: *Presenter of the orchestra analysis model*

Oliver Arafat will present the analysis model of the orchestra team.

Proposals	Description
Presenter of the orchestra analysis model	Oliver Arafat will present the analysis model of the orchestra team.

Issue: Who will present the analysis model of the tracking team?

Issue Type	Question
Team	Tracking
Development Activities	Analysis

Each team has to present its analysis model. Who will do it for the tracking team?

Resolution: *Florian*

Proposals	Description
Florian	
Periklis	

Issue: Who will present the analysis model of the user interface team?

Issue Type	Question
Team	User Interface
Development Activities	Analysis

Each team has to present its analysis model. Who will do it for the user interface team?

Resolution: ---

Issue: Who will present the analysis model of the video team?

Issue Type	Question
Team	Video
Development Activities	Analysis

Each team has to present its analysis model. Who will do it for the video team?

Resolution: *Nick will present the analysis model of the video team.*

Proposals	Description
Nick will present the analysis model of the video team.	

Issue: Who will present the class interfaces?

Issue Type	Question
Team	---
Development Activities	Object Design

Resolution: ---

Annotated Elements	Description
4.4. Object Design Review	
4.4. Object Design Review	

Issue: Who will present the design goals?

Issue Type	Question
Team	---
Development Activities	---

Resolution: *New Proposal*

Issue: Who will present the nonfunctional requirements?

Issue Type	Question
Team	---
Development Activities	Requirements Elicitation

Participants wishing to propose themselves should do it until 22 Nov 05

Resolution: *Leon v. Tippelskirch*

Proposals	Description
Leon v. Tippelskirch	

Annotated Elements	Description
4.1. Requirements Review	The requirements elicitation's goal is to describe the purpose of the system focusing only on the user?s view of it. The project participants have identifyed the problem area and defined a system that addresses the problem. A first draft of the Requirements Analysis Document (RAD) has been released using Sysiphus. In the requirements review meeting the main goal will be to analyse, discuss and verify the results obtained during the requirements elicitation process. Requirements Review Checklist - Is the model correct?; Does it represent the client's view of the system? - Is the model consistent? - Is it unambiguous? - Is it realistic? Syntactical check of the models - Check for consistent naming of classes, attributes, methods in different subsystems - Identify dangling associations (?pointing to nowhere?) - Identify double-defined classes - Identify missing classes (mentioned in one model but not defined anywhere) - Check for classes with the same name but different meanings

Annotated Elements	Description
4.1. Requirements Review	The requirements elicitation's goal is to describe the purpose of the system focusing only on the user?s view of it. The project participants have identifyed the problem area and defined a system that addresses the problem. A first draft of the Requirements Analysis Document (RAD) has been released using Sysiphus. In the requirements review meeting the main goal will be to analyse, discuss and verify the results obtained during the requirements elicitation process. Requirements Review Checklist - Is the model correct?; Does it represent the client's view of the system? - Is the model consistent? - Is it unambiguous? - Is it realistic? Syntactical check of the models - Check for consistent naming of classes, attributes, methods in different subsystems - Identify dangling associations (?pointing to nowhere?) - Identify double-defined classes - Identify missing classes (mentioned in one model but not defined anywhere) - Check for classes with the same name but different meanings

Issue: Who will present the object design trade-offs?

Issue Type	Question
Team	---
Development Activities	Object Design

Resolution: ---

Annotated Elements	Description
4.4. Object Design Review	
4.4. Object Design Review	

3.2. Development Team Issues

Sections:

- Video Team Issues
- Audio Team Issues
- Orchestra Team Issues
- User Interface Issues
- Tracking Team Issues

3.2.1. Video Team Issues

Issue: Who will present the analysis model of the video team?

Issue Type	Question
Team	Video
Development Activities	Analysis

Each team has to present its analysis model. Who will do it for the video team?

Resolution: *Nick will present the analysis model of the video team.*

Proposals	Description
Nick will present the analysis model of the video team.	

3.2.2. Audio Team Issues

Issue: Does the AudioController really need to use the VideoController?

Issue Type	Justification
Team	Audio
Development Activities	System Design

Resolution: *not necessary*

The AudioController does not need to use the VideoController. The only interaction between audio and video concerns synchronization, but the time stamps could be passed via the orchestra component.

Proposals	Description
not necessary	The AudioController does not need to use the VideoController. The only interaction between audio and video concerns synchronization, but the time stamps could be passed via the orchestra component.

Annotated Elements	Description
AudioController	
AudioController	

Open Action Items	Description
Change Component dependencies	According to the resolved issue, the component dependencies of the Audio component needs to be changed.

Issue: How should the musicians be recorded?

Issue Type	Question
Team	Audio
Development Activities	---

How should the musicians be recorded to get one single audio track per musician.

Resolution: *Separate recording of each musician*

Each musician gets a metronome beat while he is being recorded (without the others).

Proposals	Description
Pickup	Each musician should use a pickup for recording his instrument.
Separate recording of each musician	Each musician gets a metronome beat while he is being recorded (without the others).
Use mobile Plexiglas walls between the musicians	Separating the musicians with sound walls could increase the audio quality.
Use paperboard funnel to make the microphones behave more like directional microphones	This proposal was made by our customer, Key Märkl.

Issue: Who will present the analysis model of the audio team?

Issue Type	Question
Team	Audio
Development Activities	Analysis

Each team has to present its analysis model. Who will do it for the audio team?

Resolution: *Dimitri Alexeev*

Ich kann's machen.

Proposals	Description
Dimitri Alexeev	Ich kann's machen.

3.2.3. Orchestra Team Issues

Issue: Who will present the analysis model of the orchestra team?

Issue Type	Question
Team	Orchestra
Development Activities	Analysis

Each team has to present its analysis model. Who will do it for the orchestra team?

Resolution: *Presenter of the orchestra analysis model*

Oliver Arafat will present the analysis model of the orchestra team.

Proposals	Description
Presenter of the orchestra analysis model	Oliver Arafat will present the analysis model of the orchestra team.

3.2.4. User Interface Issues

Issue: Who will present the analysis model of the user interface team?

Issue Type	Question
Team	User Interface
Development Activities	Analysis

Each team has to present its analysis model. Who will do it for the user interface team?

Resolution: ---

3.2.5. Tracking Team Issues

Issue: How great is the latency between the conducting gesture of the Conductor and the reaction of the virtual orchestra?

Issue Type	Question
Team	Tracking
Development Activities	Requirements Elicitation

Resolution: *static latency*

A predefined reaction time exists

Proposals	**Description**
The virtual orchestra instantaneously responds to the gestures of the conductor	
static latency	A predefined reaction time exists
latency depends on user skills	a professional user has a shorter latency setting than a novice user

Criterions	**Description**
Ease of Use	Every user older than 7 years of age should be able to conduct the orchestra.

Assessment	**Ease of Use**
The virtual orchestra instantaneously responds to the gestures of the conductor	
static latency	
latency depends on user skills	++

Issue: How many different conducting gestures should be available in the system?

Issue Type	Question
Team	Tracking
Development Activities	Requirements Elicitation

This issue affects conducting gestures representing measures: How many differen measures should be recognized by the system? (2/4,3/4,4/4,3/8,6/8.....)

Resolution: ---

Proposals	Description
only the measures x/4 are recognized	
the measures 2/4,3/4,4/4,3/8,6/8 are recognized	
The One, Two, Three and the Four-Pattern should be recognized	the Conductor makes the same movements for a 3/4 and 3/8 meassure: a Three-Pattern. In fact he can also do a One-Pattern for every kind of meassure, i. e. if the music is gone very fast

Criterions	Description
Ease of Use	Every user older than 7 years of age should be able to conduct the orchestra.

Assessment	Ease of Use
only the measures x/4 are recognized	++
the measures 2/4,3/4,4/4,3/8,6/8 are recognized	+
The One, Two, Three and the Four-Pattern should be recognized	

Annotated Elements	Description
High accuracy	95% of the different gestures should be recognized correctly
High accuracy	95% of the different gestures should be recognized correctly

Issue: Who will present the analysis model of the tracking team?

Issue Type	Question
Team	Tracking
Development Activities	Analysis

Each team has to present its analysis model. Who will do it for the tracking team?

Resolution: *Florian*

Proposals	Description
Florian	
Periklis	

3.3. Cross Function Team Issues

Sections:

- Architecture Team Issues
- Innovation Team Issues
- Project Management Team Issues
- Demo Team Issues
- Rationale Team Issues

3.3.1. Architecture Team Issues

3.3.2. Innovation Team Issues

Issue: What is the answer to life, the universe and everything?

Issue Type	Question
Team	Innovation
Development Activities	---

:-)

Resolution: ---

Annotated Elements	Description
BendVertex	
BendVertex	

3.3.3. Project Management Team Issues

Issue: Walking through the orchestra: is it possible?

Issue Type	Question
Team	Project Management
Development Activities	Requirements Elicitation

To walk through the orchestra, we need

- 3d-models of each musician and

- 3d-model of the concert-hall

But we can not render the musician-models from different points of view using standard video cameras. So what?

Resolution: ---

Proposals	Description
Delete this requiriment	looks too hard to be possible
Interactive 360 degree panorama video system	Special lens configurations enable video to be shot in 360 degrees. Software like Quicktime VR moves the photographic images BUT ALSO VIDEO STREAMS from the flat 2D world into the definitive immersive experience ? complete with 3D imagery and interactive components.

Annotated Elements	Description
Walk through musicians	The conductor walks through the virtual room while the musicans are playing. Video and Sound are changing according to his position. He controls the walk via gestures.
Walking through the orchestra	
Walking through the orchestra	

3.3.4. Demo Team Issues

3.3.5. Rationale Team Issues

4 Project Reviews

The goals of a project review are for the project management to assess status and for teams to review subsystems interfaces. Project reviews can also encourage the exchange of operational knowledge across teams, such as common problems encountered with tools or the system.

A project review will be conducted as a formal presentation and is preceded by the release of a document (e.g. RAD, SDD, etc.). At the close of the review, the developers may negotiate changes in the interfaces and changes in schedule.

Procedure

1. The deliverables being reviewed should be released as many days prior to review as possible, so that everybody have enough time to have a look at them before the meeting. All project participants have to contribute to the release of the documentation writing specifications, creating diagrams and scenarios or revising the work done by others, etc.

2. When a new developing phase starts a draft agenda for the review meeting listing presentation topics will be published in the reviews section of the VSO portal. At the same time new issues of the form 'who will present...?' will be created in Sysiphus. Project participants willing to present a topic sign in in form of a proposal to the issue. In case that no one or too many persons want to participate on the presentation the management team will determine the presenters. (Every project participant have to do at least one presentation).

3. Once the presenters have been determined they get an action item, which consists in:

a. modifying the draft agenda (allocated time, presenters, objectives, etc. should be specified)

b. refining the presentation topics,

c. uploading their slides into the VSO-Portal (at the latest one day before presentation) and

d. presenting a topic in the review meeting.

Sections:

- Requirements Review
- Analysis Review
- System Design Review
- Object Design Review

4.1. Requirements Review

The requirements elicitation's goal is to describe the purpose of the system focusing only on the user?s view of it. The project participants have identifyed the problem area and defined a system that addresses the problem. A first draft of the Requirements Analysis Document (RAD) has been released using Sysiphus.

In the requirements review meeting the main goal will be to analyse, discuss and verify the results obtained during the requirements elicitation process.

Requirements Review Checklist

- Is the model correct?; Does it represent the client's view of the system?

- Is the model consistent?

- Is it unambiguous?

- Is it realistic?

Syntactical check of the models

- Check for consistent naming of classes, attributes, methods in different subsystems

- Identify dangling associations (?pointing to nowhere?)

- Identify double-defined classes

- Identify missing classes (mentioned in one model but not defined anywhere)

- Check for classes with the same name but different meanings

4.2. Analysis Review

During the analysis developing phase the focus is on structuring and formalizing the requirements elicited from users. The goal of this review is to make sure that the requirements specification is correct, complete, consistent and unambigous. Moreover it should be reviewed if the requirements are realistic and verifiable.

The following questions should be asked to ensure that the model is correct:

- Do abstract classes correspond to user-level concepts?

- Are all descriptions in accordance with the users' definitions?

- Do all entity and boundary objects have meningful noun phrases as names?

- Do all use cases and conrol objects have meningful verb phrases as names?

The following questions should be asked to ensure that the model is complete:

-

The following questions should be asked to ensure that the model is consistent:

- Are there multiple classes or use cases with the same name?

- Do entities (e.g. use cases, classes, attributes) with similar names denote similar concepts?

- Are there objects with similar attributes and associations that are not in the same generalization hierarchy?

The following questions should be asked to ensure that the system discribed by the analysis model is realistic:

- Are there any novel features in the system? Were any studies or prototypes built to ensure their feasibility?

- Can the performance and reliability requirements be met?

4.3. System Design Review

During system design, we identify design goals, decompose the system into subsystems, and refine subsystem decomposition until all design goals are addressed. The goal of the system design review is to verify that the design goals are met by the system design model. We need to ensure that the VSO system design model is correct, complete, consistent, realistic, and readable.

Questions to determine if the system design is correct:

- Can every subsystem be traced back to a use case or a nonfunctional requierement?

- Can every use case be mapped to a set of subsystems?

- Can every design goal be traced back to a nonfunctional requirement?

Questions to determine if the system design is complete:

- Have the boundary conditions been handled?

- Was there a walkthrough of the use cases to identify missing functionality in the system design?

- Have all use cases been examined and assigned a control object?

- Have all aspects of system design been addressed?

- Do all subsystems have definitions?

Questions to determine if the system design is consistent:

- Are conflicting design goals prioritized?

- Does any design goal violate a nonfunctional requirement?

- Are there multiple subsystems or classes with the same name?

- Are collections of objects exchanged among subsystems in a consistent manner?

Questions to determine if the system design is realistic:

- Was the appropriateness or robustness of included technologies or componentes evaluated?

- Have performance and reliability requirements been reviewed in the context of subsystem decomposition?

- Have concurrency issues (e.g. contention, deadlocks) been addressed?

Questions to determine if the system design is readable:

- Are subsystems names understandable?

- Do entities with similar names denote similar concepts?

- Are all entities described at the same level of detail?

Open Action Items	Description
Decide what kind of classical music encyclopedia should be implemented	
Elaborate a clear and non-ambiguous description of the system architecture	

Open Action Items	Description
Create a new nonfunctional requirement item in Sysiphus: Robustness (Tracking algorithmus)	
Load the demos into the portal	
Prepare a DVD with demos that can be presented to the client	
Make the CruiseControl scripts available to the developement teams	
Inform your team members about doxygen and its application during the object design phase	
Inform the project members about the possibility of using zplane's audio frameworks	
Prepare a demo to show UI functionality like switching view modes, etc.	
Inform the project members about the usage of design patterns in XCode	
Prepare a demo using many computers and screens	
Add nonfuncational requirement item: Avoid of video dropouts	

4.4. Object Design Review

Open Issues	Description
Who will present the object design trade-offs?	
Who will do the packages presentation?	
Who will present the class interfaces?	

5 FAQs

Issue: How to include external resources to a Xcode framework project?

Issue Type	FAQ
Team	---
Development Activities	Implementation

When a framework project is used, all external used resources needs to be available within the project.

Resolution: ---