

# Automatic Mobile Video Director

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**Abstract**—The abstract goes here.

## I. INTRODUCTION

This demo file is intended to serve as a “starter file” for IEEE conference papers produced under L<sup>A</sup>T<sub>E</sub>X using IEEE-tran.cls version 1.7 and later. I wish you the best of success.

## II. RELATED WORK

Describe articles and how our work differs from theirs. Throw in some references [1] so bibliography does not look empty. [2]

## III. METHODOLOGY

### A. System Overview

### B. Client application

### C. Server application

Server general description goes here. Video storage, database connection, server framework description.

### D. Client-server interaction

1) *Protocols*: Our Automatic Mobile Video Director server implementation provides a general interface to applications which wish to interact with it. It is implemented through HTTP requests to certain server locations result.

GET /events

Lists all events (including videos) in JSON.

GET /event/id

Returns Event (including videos) in JSON.

POST /event/new

Create new event from JSON. Expects request body to be a JSON string containing attribute *name*.

POST /event/id

Upload JSON metadata about a video for Event with given *id*.

PUT /video/video\_id

Upload video *video\_id* from Event *id*. Expects request body to be a file stream containing a full video file.

GET /video/video\_id

Retrieve video *video\_id* from Event *id*.

GET /selected

Retrieve a list of selected but not yet uploaded videos in JSON.

### E. Metadata format

JSON vs XML arguments here As a final result we should state that metadata is transferred in JSON format.

id

Client-side unique identification of the video.

filename

File name in client’s local file system.

timestamp

Video creation time.

duration

Video duration in frames.

width

Video frame width in pixels.

height

Video frame height in pixels.

shaking

Amount of shaking detected by sensors.

status

Video status. Indicates video life cycle phase.

serverId

Server-side unique identification of the video. Needed for coordination of all clients.

## IV. VIDEO DIRECTOR ALGORITHM

### A. Video life cycle

### B. Selection algorithm

## V. EVALUATION

How good/bad it is.

### A. Data Traffic

### B. Battery consumption

Who wants to test it?

### C. Selection criteria

## VI. FUTURE WORK

Put down all the awesome ideas we have.

## VII. CONCLUSION

The conclusion goes here.

## REFERENCES

- [1] P. Shrestha, P. H. de With, H. Weda, M. Barbieri, and E. H. Aarts, "Automatic mashup generation from multiple-camera concert recordings," in *Proceedings of the International Conference on Multimedia*, ser. MM '10. New York, NY, USA: ACM, 2010, pp. 541–550. [Online]. Available: <http://doi.acm.org/10.1145/1873951.1874023>
- [2] P. Seshadri, M. Chan, W. Ooi, and J. Chiam, "On demand retrieval of CrowdSourced mobile video," *IEEE Sensors Journal*, vol. Early Access Online, 2014.

TABLE I  
TASK DISTRIBUTION

Part	Task	Subtask	Responsible
Android application	Video Capture		Thilo Weigold
	Sensor data collection		Thilo Weigold
	Metadata class		Thilo Weigold
	Http Client	Post Method	Thilo Weigold
		Cookies, Callbacks	Alexander Egunov
		Get & Update methods	Alexander Egunov
	Background upload service		Thilo Weigold
	SQLite database connection		Thilo Weigold
	Preferences		Alexander Egunov
	GUI		Thilo Weigold, Alexander Egunov
	Client-server data exchange		Alexander Egunov
Server application	RESTful Server application	Client authorization	Alf-André Walla
		Request processing	Alf-André Walla
		Video and Event logic	Alf-André Walla
	MySQL database connection		Jon Pettersen
	Video Director		Alf-André Walla
	Client-server data exchange debug		Alexander Egunov
	Video upload		Alf-André Walla, Alexander Egunov
Web Server	MySQL Administration		Alexander Egunov
	Nginx setup for streaming video		Alexander Egunov
Documentation	Basic template formatting		Alexander Egunov