



INRETS Seminar Minutes Meetings

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1. GENERAL INTRODUCTION

Mr. AMBELLOUIS from INRETS makes a general introduction for the two days of ETISEO seminar.

Mr. CHER from Silogic, exposes a global overview of the ETISEO project, from the first seminar at Nice in May to the actual seminar.

Mr. BREMOND from INRIA, ETISEO scientific leader, exposes the principal for ETISEO evaluation: a fair evaluation based on a large participation using common data set and processing the same way to evaluate results. ETISEO should be a meaning full evaluation based on a suitable corpus data set and Ground truth Exploiting metrics able to deal with current video processing topics.

2. ETISEO FIRST VIDEO CORPUS PRESENTATION

Mr. BARTHELEMY from Silogic presents in detail the first ETISEO data set.

Video providers are: SILOGIC, CEA-LIST, INRETS-LEOST & RATP.

Several sites are concerned: Parking, Apron, Road, Metro, Building entrance, Building corridor.

The first data set contains around 19 sequences, of 1 to 2 minutes each. Most of the sequences are captured at 12 frames per second. Some are at 25 fps.

Note: The frame rate is not a topic for this evaluation. No specific corpus is dedicated to test algorithms for different acquisition frame rates. Information, which characterized algorithms, is recorded in the jointed questionnaire link to the results of each participant.

Notes:

- A common wish from participants is to have part of the clips where “no events” occur. It has been also asked for longer sequences.
- False or different events are also needed. For example in the abandoned luggage scenario, to have a person that stays near its baggage.

These remarks will be integrated during dataset 2 acquisition.

3. ANNOTATION RULES PRESENTATION

Ms. BAJARD from Silogic presents the annotation rules applied generating the ground truth for the ETISEO first corpus.

These rules are defined in the document “ video annotation rules” which can be downloaded on the www.etiseo.net site (Ref: IN-ETI-1-009 http://www.silogic.fr/etiseo/iso_album/eti-video_annotation_rules-v1-approved.pdf).

- **Todo 1.** An example of GT file will be diffused on the web site



Note: Physical objects are located in 2D in the images using Bounding box. Ellipse or shape annotation might be envisaged for future evaluations, following ETISEO project?

- Annotations of shadows for the second evaluation have been discussed. Some participants are interested in a polygonal annotation of shadows while others prefer to have a shape base annotation of the object without the artefacts.
- Weather and conditions annotation are envisaged for dataset2. This could include light variations during the clip light on/off, weather changes etc...
- Access to GT has been asked. It can help labs to improve their algorithms. See below.

4. METRICS PRESENTATION

Mr. GEORIS from INRIA presents metrics applied generating for the ETISEO evaluation comparing participant's results and reference data.

These metrics are defined in the document "Metrics definition" which can be downloaded on the www.etiseo.net site. Ref:IN_ETI_1-004 (http://www.silogic.fr/etiseo/iso_album/eti-metrics_definition-v1-approved.pdf)

The panel of the metric is exposed in detailed.

A particular point is exposed considering the case of several Bounding Box matching with the same BBox in the reference data.

5. ETISEO PARTICIPANTS' AGREEMENT PRESENTATION

Each point of the participant's agreement is exposed in detail.

Some modifications are envisaged for the official diffusion in January 2006 launching the first ETISEO registration:

- Access to the GT for the ETISEO participant,
- Duration validity of the agreement considering the ETISEO project.
- Consideration of the priority and wished sequences.

- **Todo 2.** Participant's agreement modification: Access to GT, duration validity, priority sequences.

6. ACCESS TO THE GROUND-TRUTH

Access to the ground truth appears to be a key point for participants.

- **Todo 3.** Rules for access to the GT have to be clearly defined and diffused to the participant before registration

Requests from participant: immediate access or access to the GT at the end of the first ETISEO evaluation cycle.

The way seems to be: Diffusion of the GT, at the end of the evaluation cycle, to registered participant, which has submitted results in due time for the ETISEO cycle.



7. PROCESS EVALUATON

Several submissions are authorised for each participant.

Results can be sent by each participant by e-mail or using a FTP Site, which can be protected with “write only” rights or using a zip file protected with password, which is sent to SILOGIC.

- **Todo 4.** Considering the format two “schemas” for ETISEO results will be diffused. One for the results in a frame based organisation (extension of PETS_metrics), one in an object based organisation

In multi-view sequences, participants can submit one results file with one 3D localisation or several results file (one per camera).

Anonymous statistics on metrics will be regularly displayed on the web site, allowing participants to compare their results with those obtained by others.

8. QUESTIONARY ALGO PRESENTATION (FRAN)

The questionnaire, which will be sent by each participant in connexion with his results, is exposed in detail.

The answer will be used for a global analysis of the results explaining the results of the evaluation of each method.

9. FIRST DATA SET: PRIORITY SEQUENCES SELECTION

Before the presentation of the first data set content presentation, a questionnaire has been distributed to the audience. Each participant notifies if he will process the following video clip topics, classifying them by priority level of interest (from 1= high priority to 6=low priority). Topics are: Parking, Apron, Road, Metro, Building entrance, Building corridor.

Please notify if your will process the following video clip topics and classify them by priority level of you interest from 1= high priority to 6=low priority

CLASSEMENT RESULTS Number of participants

Priority	Topics	Yes	No			
	Parking	3	40			7
	Apron	1	29			9
	Road	5	46			5
	Metro	2	36			8
	Building entrance	4	35			8
	Building corridor	6	39			8

Considering the results of the 12 collected questionnaires, priority sequences, collecting the most interest for the community present, are defined in the presented corpus.

The priority sequences (4) will cover the topics: Apron, Metro, Road and Building entrance.



The wished sequences (6) will cover the topics: Apron, Metro, Building corridor and Building entrance.

The other clips are also provided in the dataset.

It is asked to participants interested in one topic to process first the priority sequences covering that topic, then to process wished sequences and then other clips. It will help in the evaluation of the cycle.

10. SECOND ETISEO VIDEO CORPUS

A discussion is lead to envisage the evolution of the ETISEO corpus for the second cycle. The video providers will record specific video sequences for this second ETISEO cycle.

The HOSB propose to add specific traffic road sequences, produced by I-LIDS project, in the second ETISEO corpus.

- **Todo 5.** I-LIDS data included in the second ETISEO data set
- Illumination changing seems to be a crucial point for out door scene.
- Longer and more complex scene should be involved to test the final capacities of the actual algorithms.
- Participant are interested by the ETISEO corpus providing:
 - Multi-view data set,
 - Real outdoor sequences,
 - Original combination of visible and infrared images.
- Scenes with no events will be help full for tests or learning.
- Abandon luggage should be more realistic (simulation artefact),
- None abandoned object should be recorded in comparison with really abandoned object.
- Crowded scene: for crowded part of the scene, which is not actually annotated, we can see what are the results for the first cycle from participants, and then propose a way to annotate crowded part, matching the current results.

11. CONCLUSION

The interest of the community for the ETISEO evaluation project is manifest.

Generated resources including video corpus and Ground truth are naturally expected by each of the participant. Metrics and the way of a fair evaluation are also main points.

The proposed video content panel seems suitable for the community, by its diversity and its content interest, with real site and real acquisition condition.

The first ETISEO cycle launch at the beginning of 2006, with the active participation of the community should constitute a step for the evaluation process.



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12. ACTIONS LIST

Todo #	Action	Resp.	Date
1.	An example of GT file will be diffused on the web site	SILOGIC	January 2006
2.	Participant's agreement modification: Access to GT, duration validity, priority sequences.	SILOGIC	January 2006
3.	Rules for access to the GT have to be clearly defined and diffused to the participant before registration	SILOGIC	January 2006
4.	Considering the format two schemas for ETISEO results will be diffused.	SILOGIC	January 2006
5.	I-LIDS data included in the second ETISEO data set	SILOGIC	May 2006