

# **The First International TrakMark Workshop**

October 12, 2010, TOZ Business Center, Seoul, Korea

## The TrakMark Working Group

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### **1. The TrakMark Workshop**

The first international TrakMark workshop will be held on October 12, 2010, one day before ISMAR 2010 at TOZ business center in Seoul, just two subway stops from COEX area. The objective of the event is to have an intensive, live discussion among leading AR/MR researchers and those who have declared for contribution. The workshop will provide a unique opportunity for the selected attendees to have an international in-depth discussion to boost up dissemination of the TrakMark activity.

So far, we have devoted ourselves to formulate a first draft (TrakMark 1.0) specifying the data format, test procedures etc., which will be the main topics of the TrakMark workshop. Immediately after the workshop, the edited first draft and test data will be presented at ISMAR 2010, hoping to receive concrete feedback. A benchmark test scheme of a certain level will then be produced in time for ISMAR 2011.

### **2. What TrakMark is**

In the research fields of Augmented Reality (AR) and Mixed Reality (MR), tracking and registration methods are still one of the most important topics. The tracking research field is highly active, and numerous methods appear on a regular basis. Since the year 2008, the Tracking Competition has been held at the ISMAR symposium and since then attracted an increasing number of participants.

Based on this background, the TrakMark working group (WG) was established in 2009 as a lower branch of the Special Interest Group on Mixed Reality (SIG-MR), the Virtual Reality Society of Japan (VRSJ). The TrakMark WG aims to create a benchmark test that permits objective and accurate evaluation of the tracking methods. For this purpose, it is necessary to select evaluation items, set evaluation standards and consolidate test data. Once the foundations and the test scheme are established, it should be possible to interact with industries seeking to use AR/MR technology in practical settings. Moreover, this could help to provide a spur to researchers aiming to improve current tracking methods.

Currently, 15 active members listed in Section 4 participate in the TrakMark WG. Several meetings of secretaries general and committee meetings have been held, and evaluation targets, evaluation criteria and

evaluation procedures have been discussed. In addition to these meetings, Special Presentation of the TrakMark ("Benchmarking of AR/MR Tracking Technology") was given at ISMAR 2009 (Oct.22, 2009), announcing the objectives and the activities of TrakMark to the public, and calling for advocates. This special session attracted wide interest in the audience and led to vigorous and fruitful discussions that overrun the allotted time.

### **3. Tentative Program**

Currently we plan to hold the workshop with around 20 selected attendees from all over the world. Following is a tentative program of the event.

9:00- 9:05 Opening  
9:05- 9:30 Overview of TrakMark  
9:30-12:00 Position Statements from Participants  
12:00-13:30 Lunch Break  
13:30-14:30 Target algorithms / Evaluation Criteria  
14:30-15:30 Data Formats and Datasets  
15:30-16:30 Other Issues  
16:30-16:55 Action Planning  
16:55-17:00 Closing

### **4. TrakMark Active Members**

#### *General Chair:*

Hideyuki Tamura, Ritsumeikan University

#### *General Vice Chair:*

Hirokazu Kato, Nara Institute of Science and Technology (NAIST)

#### *Secretariat:*

Sei Ikeda, Nara Institute of Science and Technology (NAIST),

Tomokazu Sato, Nara Institute of Science and Technology (NAIST),

Fumihisa Shibata, Ritsumeikan University

#### *Working Members:*

Yoshinari Kameda, University of Tsukuba,

Itaru Kitahara, University of Tsukuba,

Kiyoshi Kiyokawa, Osaka University,

Takeshi Kurata, National Institute of Advanced Industrial Science and Technology (AIST),

Hideaki Uchiyama, Keio University

Yuko Uematsu, Keio University

#### *Senior Advisors:*

Naokazu Yokoya, Nara Institute of Science and Technology (NAIST),

Yuichi Ohta, University of Tsukuba,

Haruo Takemura, Osaka University,

Hideo Saito, Keio University