



EFMI
European Federation for Medical Informatics

Working Group on Medical Image Processing

Intermediate Report to EFMI Council

For the period October 2004 to September 2005
To be presented at 53rd EFMI Council Meeting, Athens, 17 March 2005
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Current objectives

- ❑ **A. RID-MIP** – to establish a reference image database for medical image processing R&D groups (RID-MIP) within the EFMI member countries.
- ❑ **B. EIPG-IS** – to establish a Web-based Information System (IS) about European Image Processing Groups (EIPG) and their current activities.
- ❑ **C. Website** – to create and maintain a Working Group Website providing public information and (in a protected sub-area) WG-internal documents and work plans.
- ❑ **D. Workshops** – to organize workshops dedicated to the WG topics at the MIE conferences and other events.
- ❑ **E. Cooperation** – to build and maintain close relationship with persons, groups, organisations and standardisation bodies working on the MIP field and medical domains involved.

Recent activities

- ❑ **Ad A:** Discussions with industry have taken place with the aim to establish strategic alliances. Promotion of the initiative has been done in various ways (meetings, publications). The WG closely collaborates with the US Cancer Imaging Program of the *National Cancer Institute* in order to accelerate the efforts, create synergies and avoid uncoordinated parallel developments. A user management module has been developed for the Reference Image Database Work Prototype by a student at the Munich University of Technology and an interoperability concept with the planned online journal of the *Insight Software Consortium* and *Kitware Inc.* has been prepared.
- ❑ **Ad B:** In 2004 it has been decided in a WG chair meeting in Munich that a first EIPG-IS version shall be implemented with students at Kaunas University, Lithuania, as soon as possible.
- ❑ **Ad C:** Through the www.efmi-wg-mip.net internal area the RID-WP is accessible for all working group members. Basic information about the working group (mission, members, etc) has been entered on the new EFMI website www.efmi.org.
- ❑ **Ad D:** After the very successful 3rd WG Workshop with the topic *Medical Image Processing for Health – State of the Art, Challenges and Obstacles* which has taken place on 16 June 2004 at the EFMI Special Topic Conference in Munich, the WG concentrated on the preparation of activities at the CARS and MIE conferences in 2005 (see future activities).
- ❑ **Ad E:** The cooperation with CARS (Computer Assisted Radiology and Surgery) and with reference image database initiatives in the USA has been continued. Contacts to industry (imaging, software and pharma) have been intensified. The working group has supported the 13th CATAI Winter Course including the 18th Image Analysis Course of the University of La Laguna, Tenerife, Canary Islands, Spain, with a lecture on DICOM, IHE and Medical Image Processing and a workshop on Computer Aided Diagnosis held by the WG chair (2-3 March).



Future activities

- ❑ **WG meetings.** It is planned to have WG meetings at CARS 2005 in Berlin and at MIE 2005 in Geneva.
- ❑ **Scientific Programs.**
 - For CARS 2005 conference in Berlin a CARS / EFMI joint workshop (see next point) has been integrated into the scientific program with scientific contributions to the conference proceedings.
 - It is planned to support the 10th Fall Workshop Vision Modeling and Visualization (VMV) 2005 in Erlangen, 16-18 November, in its topic medical image processing. There shall be a discussion panel about medical image processing and visualization.
- ❑ **Workshops.**
 - The 4th WG workshop will be held at CARS 2005 in Berlin on Saturday, 25 June 2005 on the topic *Medical Reference Image Databases and Correlated Software Tools and Technologies*.
 - The 5th WG workshop will take place at MIE 2005 in Geneva at the end of August (exact day to be defined) on the topic *Managing Medical Image Data*. Furthermore, Henning Müller from Geneva has coordinated, on behalf of the WG, the preparation of a tutorial on the topic *DICOM, the IHE Initiative and the Role of Reference Image Databases and Knowledge-based Applications*, following a suggestion of Rolf Engelbrecht.
- ❑ **RID-MIP.** A first attempt to find a suitable way to funding from the EC, together with industry, failed due to the lack of a suitable programme call. The efforts continue. The *Insight Software Consortium* and *Kitware Inc.* have got funding for launching their new online journal. The collaboration will therefore go into the development phase now.

Publications

- ❑ Clarke L: The LIDC Database Project. In: Blobel B, Gell G, Hildebrand C, Engelbrecht R (eds): Contribution of Medical Informatics to Health (EFMI STC'2004). Aka Verlag, Berlin, 2004, 128
- ❑ Horsch A, Prinz M, Schneider S, Sipilä O, Spinnler K, Vallée JP, Verdonck-de Leeuw I, Vogl R, Wittenberg T, Zahlmann G: Establishing an International Reference Image Database for Research and Development in Medical Image Processing. *Methods Inf Med* 43(4)2004:409-412
- ❑ Horsch A: The Potential of Medical Image Processing and the Need for Reference Data and Software to Accelerate its Exploitation for Patients' Health. EFMI STC'2004, 126
- ❑ Punys V: About an Initiative to Build a European Network of Excellence for Medical Image Processing. EFMI STC'2004, 127
- ❑ Wittenberg T: The Basic Principles of the Reference Image Database Concept of EFMI WG MIP. EFMI STC'2004, 129

Conclusion

During this fourth year the activities of the working group again gained increasing interest. However, to get appropriate funding for the reference image database initiative is still the big challenge. To intensify cooperation with industry seems the right way to proceed. The working group is active at big



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events like the MIE and CARS conferences and has been invited to the NIH strategy symposium 2004. There have been taken good steps during the report period to proceed on the way to achieve the ambitious goals.

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