

## NA-MIC KIT

Kikinis, Ron<sup>3</sup>; Schroeder, William<sup>1</sup>; Lorensen, William E. <sup>2</sup>; Miller, James V. <sup>2</sup>; Pieper, Steve<sup>3</sup>

<sup>1</sup>Kitware Inc, Clifton Park, NY; <sup>2</sup>GE Research, Niskayuna, NY;

<sup>3</sup>Surgical Planning Laboratory, Brigham and Women's Hospital, Boston, MA

**Keywords:** Open Source Software, VTK, ITK, Slicer, LONI, CMake, DART, CPack, KWWidgets, quality software process

Medical image computing researchers often face the problem of moving promising algorithms from inception to clinical application. Algorithm developers lack the time and resources to engineer their code for robustness and compatibility, while end-users are anxious to try new techniques but require well designed and tested user interfaces to make practical use of them. The NA-MIC Kit is a collection of software and methodology specifically designed to address these problems and facilitate the rapid advancement of the field. It consists of three major types of software technology: programming toolkits (e.g., VTK and ITK), end-user application software (e.g., Slicer), and system infrastructure (e.g., LONI, CMake, CPack, DART2). In addition, the NA-MIC Kit addresses issues of usability, software process including quality assurance, community building and licensing. These technologies are integrated in a consistent framework that facilitates the transition of ideas to usable, quality software implementations. Besides showing preliminary results benefiting the medical image computing community, components of the NAMIC Kit have been successfully adopted by other large projects such as KDE, one of the world's largest open source software systems (KDE is the Linux windows environment).

E-mail: [kikinis@bwh.harvard.edu](mailto:kikinis@bwh.harvard.edu)