

# An Application Framework for Medical Visualization

黃健彰、張顧耀

E-mail: 9606932@mail.dyu.edu.tw

## ABSTRACT

Medical visualization systems have been widely used in clinical diagnosis, surgical planning and guidance. The development of such systems usually requires much effort. Many frameworks of various domains are therefore developed to help build these systems. When several frameworks are cooperated to work, it not only increases the system complexity and learning cost, but also leads to framework composition problems. In this paper, we describe a medical visualization framework, called MVC (Medical Visualization Class), which seamlessly integrates three frameworks - MFC, ITK and VTK of different domains. MVC provides common functions for medical visualization applications, such as reading DICOM files, image processing and various 2D/3D rendering effects. Based on MVC, developers can reuse functionality of different frameworks easily and thus make faster progress in building medical visualization systems.

Keywords : application framework, framework composition, medical visualization

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