Slicer Welcome

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Goal

This tutorial is a short introduction to the Welcome module of the Slicer open-source software.
Slicer4 Basics

• Slicer is an open-source software for segmentation, registration and visualization of medical imaging data
• The platform is developed through a multi-institution effort of several NIH funded large-scale consortia.
• Slicer is for medical research only, and is not FDA approved
Slicer4 Basics

Slicer4 contains over 100 modules for image segmentation, registration and 3D visualization of medical imaging data.

Images courtesy of Ron Kikinis, MD
Supported Platforms

• Slicer is a multi-platform software developed and maintained on Mac OS X, Linux 64 & 32, and Windows 64.

• Slicer requires a minimum of 2 GB of RAM and a dedicated graphic accelerator with 64 MB of on-board graphic memory.
3DSlicer version 4.5

The Welcome module is the default start-up module.
Welcome to Slicer

Each module of Slicer includes a series of tabs, which give access to different functionalities.

Click on the arrow symbol to display the content of each tab.
Slicer Welcome

The Main Window tab contains information on the basic organization of Slicer’s user interface.

The basic organization of Slicer’s user interface (UI) is shown above. This module’s content will reference these following components, labeled in the figure:

**File Menu:**
Contains basic load and save functionality, access to application settings, Tcl and Python interfaces for developers, help and mechanisms for users to provide feedback.

**Toolbar:**
Contains tools for selecting and navigating among Slicer modules, layout and other utilities.

**Data Probe**
- Show Zoomed Slice
- L
- F
- B
Slicer User Interface

Main Menu

Toolbar

User Interface (UI) panel of the Slicer Welcome Module

Data Probe

3D viewer

2D anatomical viewers
Welcome Module

The Documentation & Tutorial tab contains links to the Slicer4 training compendium and documentation.
Slicer4.5 Documentation & Training

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Welcome Module

The Welcome module panel contains shortcuts for loading different types of data. A series of sample data are also available.

Click on Download Sample Data to access the Sample Data Module.
Sample Data

The Sample Data module contains links to 12 different sample datasets that can be downloaded into Slicer.
Sample Data

- Brain MRI
- Chest CT
- Cardiac CT
- Diffusion Tensor Imaging (DTI) Dataset
- Brain MRI (tumor patient)
Sample Data

Click on **Download MRHead** to download the dataset in Slicer.
Welcome Module

The MR scan of the brain appears in the 2D viewers.
MR Brain Sample Dataset

Position the mouse on the little pin icon in the top left corner of the red viewer to display the viewer menu.
Click on the link icon to link all three 2D viewers, and on the eye icon next to it to display the slices in the 3D viewer.
The axial, coronal and sagittal slices appear in the 3D viewer.

Go back to the Welcome module using the green arrow in the toolbar.
Click on the tab Mouse & Keyboard to learn the different mouse actions to rotate the images and zoom in and out.
To learn more about Slicer and its different functionalities, please visit the Slicer4.5 compendium

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