

**Azerbaijan National Academy of Science  
(ANAS)  
Institute of Physics  
MEDGRID**

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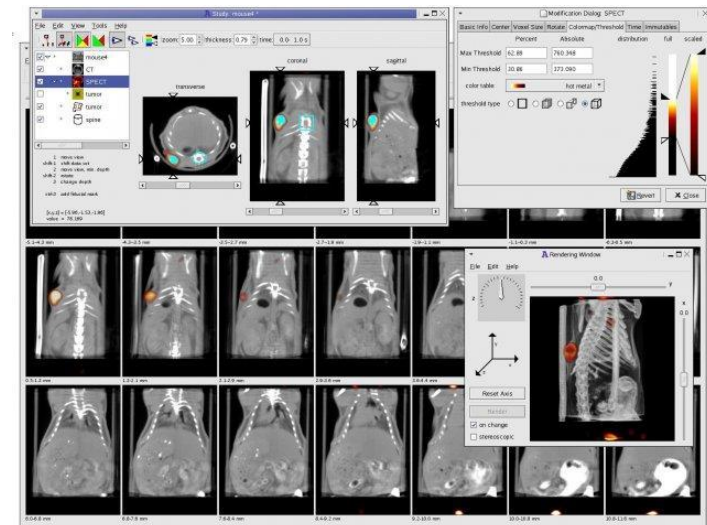
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# OUTLINE

- **Inner project**
  - AMIDE
  - PsychoPy
  - GNUmed
- **Outer project**
  - Collaboration (cardeology)

# AMIDE project

- What is AMIDE
  - What is Amide?
  - What is its features?



# What is AMIDE

- AMIDE is a completely free tool for viewing, analyzing, and registering volumetric medical imaging data sets. It's been written on top of GTK+, and runs on any system that supports this toolkit (Linux, Windows, Mac OS X, etc.)

# Features

- Arbitrary orientation, thickness, and time period slice viewing of a data set.
- Multiple data sets can be loaded and viewed at once, with either linked or fused views. Each data set can be viewed from any orientation. Fusing can be done by blending or overlay.
- Zooming
- The following colormaps are supported:  
Black/White, White/Black, Red/Green/Blue Temperature, Hot Metal/Blue/Green, Spectrum, NIH/UCLA
- 3-dimensional ROI's can be drawn directly on the images and statistics can be generated for these ROI's. Currently supported ROI's are ellipsoids, elliptic cylinder's, boxes, and isocontours.
- Series of slices can be viewed.
- Profiles can also be saved for external use, etc.

# PsychoPy project

- Overview
- The goal
- Features



# Overview

- PsychoPy is an open-source package for running experiments in Python. PsychoPy combines the graphical strengths of OpenGL with the easy Python syntax to give scientists a free and simple stimulus presentation and control package. It is used by many labs worldwide for psychophysics, cognitive neuroscience and experimental psychology



# The goal

- To enable scientists to run as wide a range of experiments as possible, as easily as possible, with standard computer hardware
- A single piece of software;
  - precise* enough for psychophysics
  - intuitive* enough for undergraduate psychology
  - flexible* enough for everything else



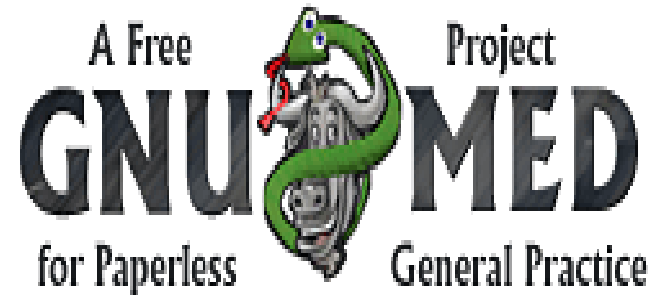
# FEATURES

- Simple install process
- Platform independent - run the same script on Win, OS X or Linux
- Input from keyboard, mouse, microphone or button boxes
- Multi-monitor support
- Huge variety of stimuli (see screenshots) generated in real-time:
  - linear gratings, bitmaps constantly updating
  - radial gratings
  - random dots
  - movies (DivX, mov, mpg...)
  - text (unicode in any truetype font)
  - shapes
  - sounds (tones, numpy arrays, wav, ogg...)



# GNUmed project

- What is it
- The aim



# What is it

- The GNUmed project builds free, *liberated* open source Electronic Medical Record software in *multiple languages* to assist and improve longitudinal care (specifically in ambulatory settings, i.e. multi-professional practices and clinics).
- It is made available at no charge and is capable of running on GNU/Linux, Windows and Mac OS X. It is developed by a handful of medical doctors and programmers from all over the world.
- It can be useful to anyone documenting the health of patients including, but not limited to, doctors, physical therapists, occupational therapists, acupuncturists, nurses, psychologists ...



# The aim

- It is aiming for a comprehensive scalable software solution for electronic medical practice with emphasis on privacy protection, secure patient centric record sharing, decision support and ease of use.
- It would emphasize that medical software is moving from a mere administration & documentation tool toward decision support.
- A sophisticated decision support system, such as eventually aim GNUmed to become, will elevate the quality of medical care that can be delivered



# Medgrid Projects in Azerbaijan

- What are difficulties
- How to solve them



# Difficulties

- new projects for us
- new in medicine
- lack of staff



# Solution

- Inform medical staff about Grid and MedGrid
  - hold presentations
  - make them to be interested in it



# Collaboration in Medical Grid-system in the field of cardiology with Ukraine

- The aim of Medical Grid-system in the field of cardiology
- Why do we want to collaborate in this field





# The aim of Medical Grid-system in the field of cardiology

- Medical Grid-system for population research in the field of cardiology with electrocardiogram database.
- The results of ECG research permit to forecast the quantitative and qualitative characteristics of medical aid provision for cardiovascular diseases through all regions, and analyze the necessity for pharmaceutical remedies for those cases.



# Why do we want to collaborate in Medgrid

- To improve this field in our medicine
- To become more experienced in this field
- Assistance for training in this field



THANK YOU FOR YOUR  
ATTENTION!



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