Introduction to ImarisXT using Matlab

Today

- Introduction
  - 6 slices of presentation

- Examples
  - 3 examples

- Exercises
  - 4 exercises

- Q/A session, wrap up
 - But please ask anytime!

ImarisXT - Motivation

- Imaris provides key features for analysis
  - File IO, segmentation, tracking, visualization, interaction, statistics, …

- eXTend Imaris functionality
  - Flexibility of programming language (Matlab, Python, …)
  - Existing or custom code

ImarisXT - Functionality

- Transfer data from and to Imaris
  - Image properties and intensities
  - Spots, Surfaces, Filament, Cells properties and coordinates

- Open/Save files (allows batch processing)
- Image processing
- Control application state (current view)
- Take snapshot (allows creating custom movies)
- Supported languages and environments:

ImarisXT - Documentation
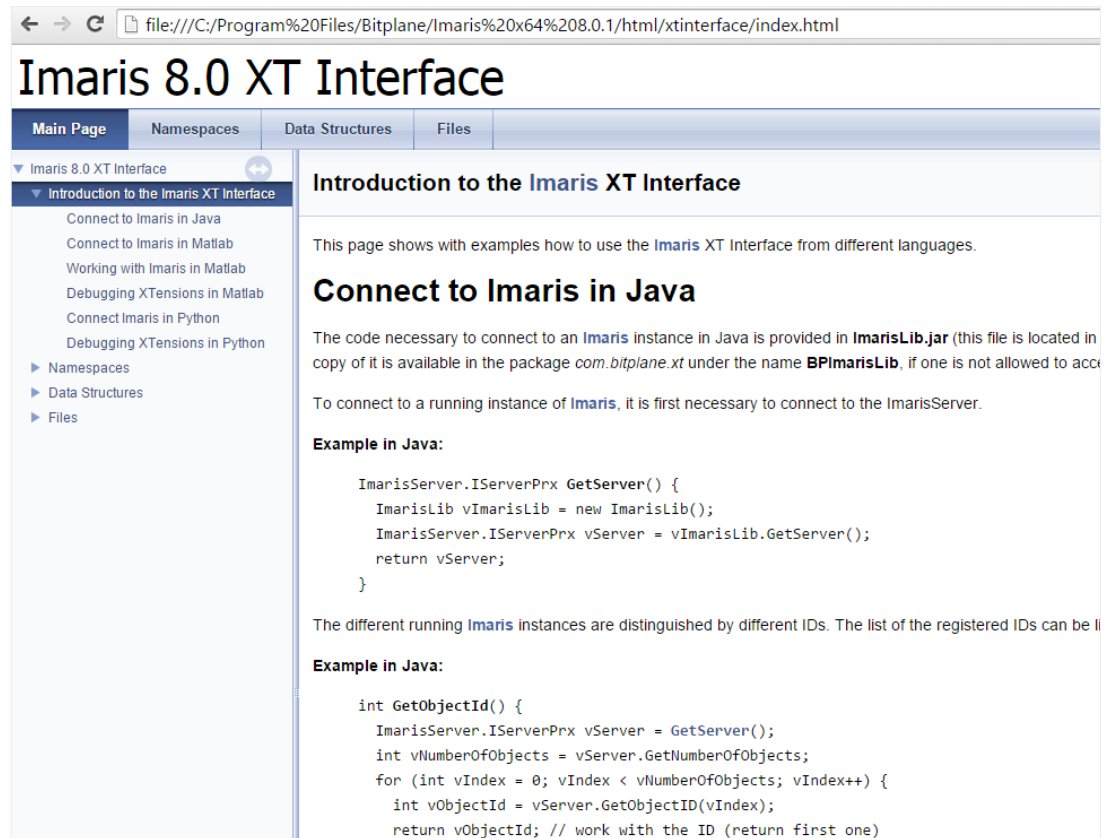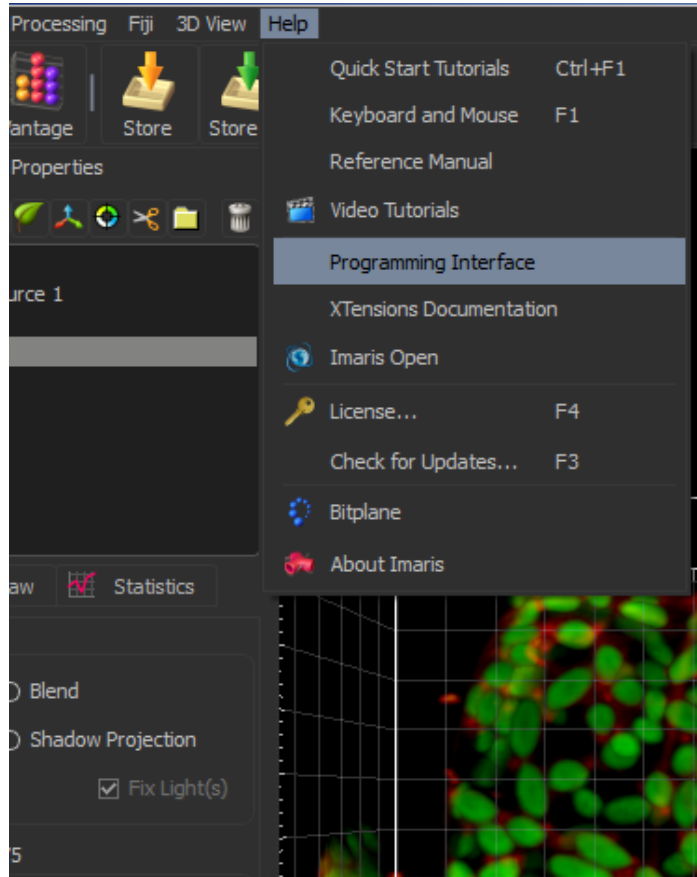
ImarisXT - Workshop

- Examples
  1. Invert middle slice
  2. Creating a spot in the middle of the image
  3. Count selected spots
- XTensions deployment
  - Make them available in Imaris
- Exercises
  1. Move image and spots
  2. Selective image intensities mapping
  3. Proximity tracking
  4. Detect spots and create histogram of statistics

Guidelines

- Please try to solve the exercises on your own
  - Ask me or your neighbour when stuck

- Take your time to explore XT and Matlab

- Discuss your solution with your neighbour
  - I'll be glad to have a look if I find the time

- Have fun