Preliminary report

Increasing easyLEED's usefulness in research

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Background

- Based on a summer job at LUT MAFY
- easyLEED is for extracting intensity-energy spectra from LEED patterns
- Written in Python
- Originally created by Andreas Mayer

Objectives

- easyLEED ready for publishing
- Plotting spectra within the program
- User friendly UI (quick access toolbars etc.)
- Documentation
- Smart installation

- Avoid screwing up the original code

LEED research

- Experimental method to infer characteristics about the atomistic structure of surfaces
- Electrons are accilerated in the direction of the sample and are diffracted by it
- Different acceleration voltages and beam energies used
- Spectra tells the position of individual atoms in the surface
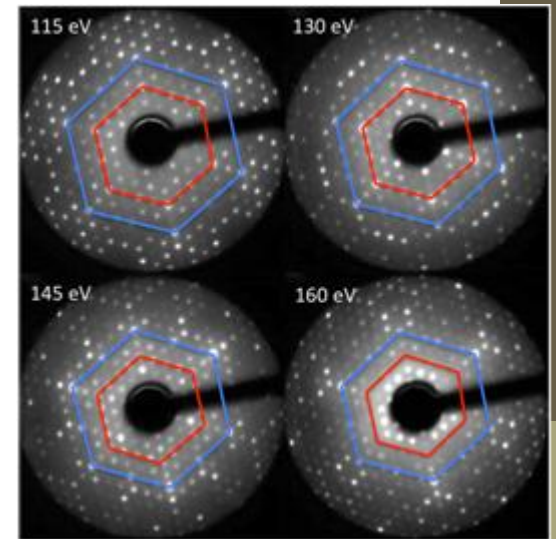
Python & Qt

- Python is dynamic OOP language
- Qt Developed by Nokia Qt Development Frameworks
- Integrated to Python through PyQt

- Both have open source license
- Multi-platform

Methods of resolution

- Continue using Python and Qt
- Maplotlib library for plotting
- Documentation