EUCALL task 4.2.2.2 and 4.2.2.5: Synchrotron X-ray source and ray tracing

# Overview

The synchrotron X-ray source and ray tracing is realized with the Oasys software package developed by Luca Rebuffi and Manuel Sanchez del Rio

<http://ftp.esrf.eu/pub/scisoft/Oasys/readme.html>

# Laser shock experiments at ESRF

As part of preparation for the new High Power Laser Facility (HPLF), that will be installed on the ID24 beamline at the ESRF, the current energy dispersive X-ray absorption beamline has been simulated using Oasys.

*The ID24 beamline workflow is attached (ID24.ows in Xray-tracing-ID24.zip)*

# Installing Oasys 1.0

Installation scripts and the wiki page for Oasys 1.0 can be found at

<https://github.com/srio/oasys-installation-scripts/wiki>

# Tutorials for Oasys and ShadowOUI

Tutorials can be found at

<https://github.com/srio/ShadowOui-Tutorial>

# References:

1. M. Sancez del Rio, L. Rebuffi, J. Demšar, N.Canestrari and O. Chubar, "A proposal for an open source graphical environment for simulating X-ray optics", [Proc. SPIE 9209, 92090X (2014)](http://dx.doi.org/10.1117/12.2061834)
2. Luca Rebuffi, Manuel Sánchez del Río, "ShadowOui : a new visual environment for X-ray optics and synchrotron beamline simulations" , [Journal of Synchrotron Radiation (2016) 23: 6. 1357-1367](https://doi.org/10.1107/S1600577516013837)