

openBIS Importer Toolset (oBIT)

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openBIS¹ is an extensible, open source software framework for constructing user-friendly, scalable and powerful information systems for data and metadata acquired in biological experiments. It enables users to collect, integrate, share, publish data and to connect to data processing pipelines. The openBIS Importer Toolset² (oBIT) is a tightly integrated collection of tools that allows for the semi-automated, semi-supervised registration of annotated datasets into openBIS directly from the acquisition stations.

oBIT aims at optimizing the usage of shared acquisition machines in centralized facilities by offering a workflow for moving annotated data from the acquisition stations into openBIS in a simple but quick and robust way. In addition, oBIT provides an extensible framework that facilitates integrating the registration of new classes of hardware and data types into openBIS. Indeed, one of the strengths of oBIT/openBIS is the way it transparently allows co-registration of data from different acquisition modalities into one, common environment. oBIT is being developed at the Department of Biosystems Science and Engineering³ of the ETH Zurich and in its current state it supports flow cytometers, cell sorters and microscopes for the Single Cell Facility⁴ and will in a later stage also address the needs of the Laboratory Automation Facility⁵. openBIS is developed by the Scientific Software and Data Management group (part of Scientific IT Services⁶) at the ETH Zurich.

In this talk I will introduce openBIS and then the current state of oBIT.

1 <http://www.cisd.ethz.ch/software/openBIS>

2 <http://www.scs2.net/next/index.php?id=150>

3 <http://www.bsse.ethz.ch>

4 <http://www.bsse.ethz.ch/research/facilities/single---cell---facility.html>

5 <http://www.bsse.ethz.ch/research/facilities/laboratory---automation---facility.html>

6 https://www1.ethz.ch/id/about/sections/sis/index_EN