

# Labstory

Integrated ELN and LIMS

## Developers Guide

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## Introduction

Labstory has been designed to make programmatic access possible and easy. Many of the constraints of the input are to ensure that the data is easy to parse for the purpose of data mining. The entire Labstory framework is written in Java, with a strong separation between the front-end (the GUI) and the back-end (data storage, server I/O). The back-end is available as a library that can be deployed in user applications.

## Creating new document objects

We do not support and strongly recommend against defining new types of document objects. If you need new data types we advise you to let us know and join in a process of improving the system. This way new types can be made useful for a larger range of users and we can help maintain future compatibility of these objects.

## Using the library

The entire back-end is documented using Javadoc. However, it is easier to get started using our examples.

Note that the API we provide is neither backwards nor forwards compatible. We reserve the right to change it at any point. However, some parts are much less prone to change than others. In particular, it is very unlikely that we will make backwards-incompatible changes to the interface for any document objects.

## Performance

Note that neither R nor Matlab are very fast languages – If you are planning to extract large amounts of data from multiple documents (i.e. not read from SQL tables), we recommend you to write your performance critical code in Java. You can then mix it with the glue code we supply to support other languages.

## **Access from Java**

### ***Deployment***

To access it from Java, copy all .jar-files to your project and link them. You may omit qt\*.jar as these are only referenced from the front-end. For later bundling, labstory.jar depends on all other required jar-file and you need thus not explicitly reference them.

### ***Basic example of reading a document***

## **Access from R**

### ***Deployment***

To install the R-Labstory package,

...

### ***Basic example of reading a document***

## **Access from Matlab**

### ***Deployment***

### ***Basic example of reading a document***