

devmio blog

How beautiful a Java UI can be

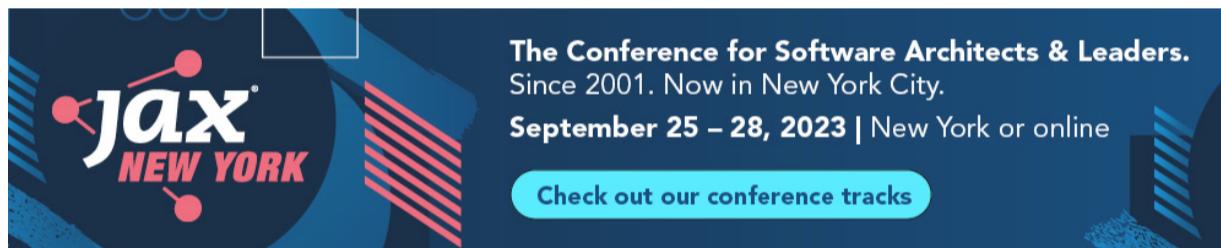
20 JavaFX real-world applications

[Java](#) [Web Design](#) [UX](#)



Alexander Casall

11. Feb 2016



In November 2015 [Dirk Lemmermann](#) (Freelancer) and I ([Alexander Casall](#)) had a JavaOne session about JavaFX Real World Applications. We showed a bunch of apps that we made for our customers or where we had contributions in development. This article summarizes the talk by showing the applications that we've talked about. In addition, I asked some other JavaFX developers if they want to contribute their apps to this blog post.



(<https://jaxlondon.com/>)



[Developing Java BDD A cucumber](#)

Thank you [Dirk Lemmermann](#), [Jan Gassen](#), [Rob Terpilowski](#), [Sean Phillips](#), [Angelica Leite](#), [Denny Israel](#) and [Manuel Mauky](#) for contributing information about their applications. Before we started talking about the applications, I asked the contributors some questions regarding JavaFX:

What do you consider to be the highlights of JavaFX after having used it?

What is your general opinion about JavaFX?

What do you miss about working with JavaFX?

Answers of: [Dirk Lemmermann](#)

Answers of: [Jan Gassen](#)

Answers of: [Rob Terpilowski](#)

Answers of: [Sean Phillips](#)

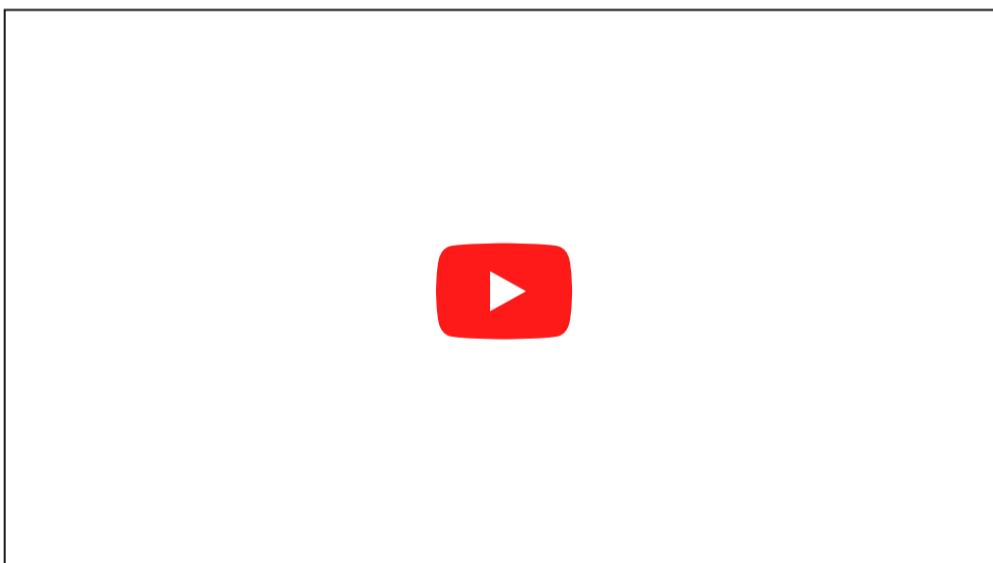
Let's have a look at the applications that we and our contributors created.

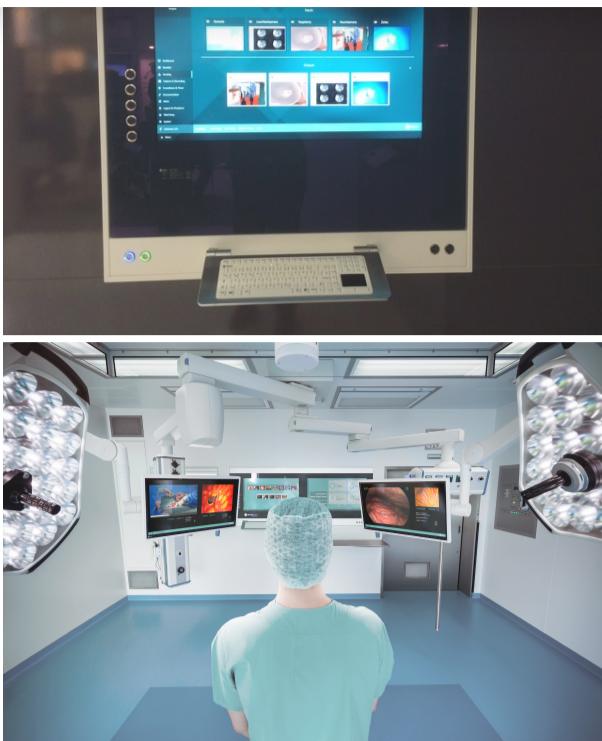
CuratorOR Caliop [EIZO GmbH](#)
contributed by [Dirk Lemmermann](#).

Area of use Hospitals / Surgery

Dirk CuratorOR Caliop, developed by EIZO GmbH in Germany, is an application that will be installed in hospitals' operating rooms. It is being installed in wall-mounted consoles equipped with a Windows PC running Java 8. The consoles also include additional hardware for routing video input signals to various monitors / displays and hardware for recording video signals (video and screenshots). The operating room personnel uses Caliop to look up patient data, to document the surgery, and to store the produced documents in the central hospital database.

One of the more interesting aspects of this project was the fact that JavaFX was able to take a very detailed and sophisticated HTML mock-up and implement it 1 to 1. We were also very happy about the built-in media player which allowed us to show the recorded videos directly inside the JavaFX UI with only a few lines of code. We were able to fulfill all customer requirements with JavaFX.





Navigator Lynden

contributed by **Rob Terpilowski**

Area of use Dispatching

Rob Lynden, Inc. is a freight and logistics company based in the Seattle and Anchorage areas."Lynden Navigator", the application developed by us, has two sets of target users within the company.

We have freight terminals across the lower 48 states and in Alaska and Hawaii, as well as in Canada. Navigator was developed to give managers at those terminals the ability to see information regarding the freight that is scheduled to arrive at their facility, as well as the freight that is scheduled to depart from their facility. This information will help managers to allocate their resources -both human and equipment (trucks, trailers, etc.)- more efficiently.



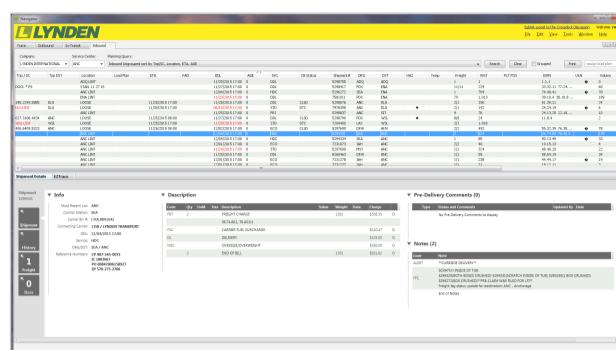
Master Software Design & Architectural Challenges

International experts lend their advice, know-how, and tips in this first edition of the JAX New York Conference Whitepaper Selection 2023. Learn how to carefully design leading edge systems based on established architectural experience and the latest software knowledge. Enjoy over 25 pages of top expertise and lessons. Stay ahead of the latest trends and download the whitepaper exclusively for free!

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The second set of users of the Navigator application are customer service personnel. Since the Navigator application is built on the NetBeans Rich Client Platform, we were able to develop the customer service functionality as a NetBeans plug-in and easily integrate it with the Planning portion of the application mentioned above. This plug-in will give customer service the ability to search for freight in a variety of ways, including by shipment number, customer name, address, etc. The application will then display the complete history for a selected freight item as it has moved through our system. Users can also print or email documents related to the shipment,

using the existing Swing UI components that have remained in place for the other application plug-ins.



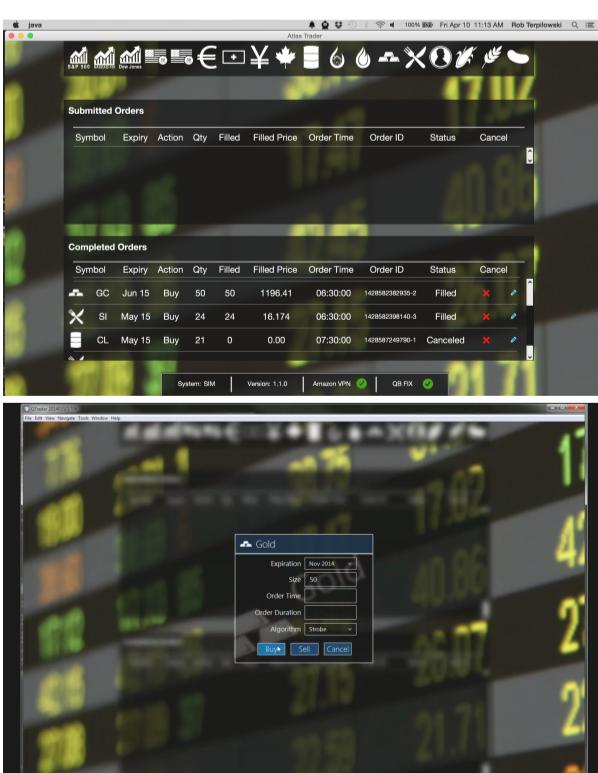
The bottom area is JavaFX, the upper area is Swing

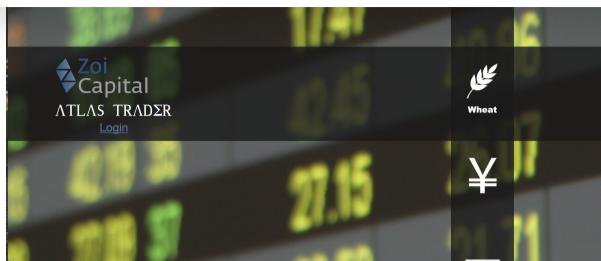
Atlas Trader

contributed by Rob Terpilowski

Area of use Finance

Rob To place our trades with our commodity broker “Quantitative Brokers”, our software called “Atlas Trader”, would allow the user to select which commodity (Gold, Oil, Wheat, etc.) they want to purchase or sell, as well as specify various attributes about the order such as number of contracts to purchase, time to submit the order, as well as the amount of time the order should be given to execute. Information is then relayed to the broker utilizing the Financial Information Exchange (FIX) API. The broker relays various updates about the order back to the application which gives feedback to the user on the status of the order.



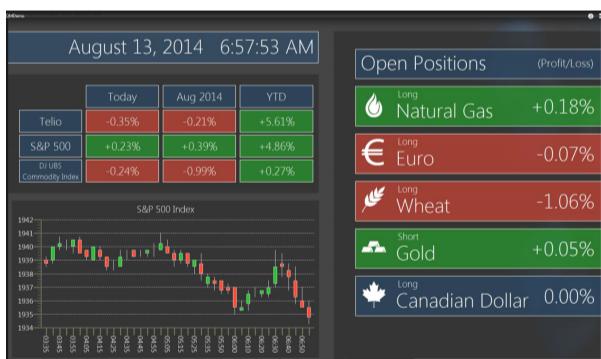


QuoteMonitor

contributed by Rob Terpilowski

Area of use Finance

For monitoring the prices of commodities that we were holding and tracking our profit and loss in real time we created the “Quote Monitor” application which would be able to monitor prices in real-time and send out alerts if the profit/loss amounts hit predetermined levels. This application interfaced with Interactive Brokers Java API in order to retrieve commodity prices in real-time from the various commodity exchanges.



Template Editor IAV

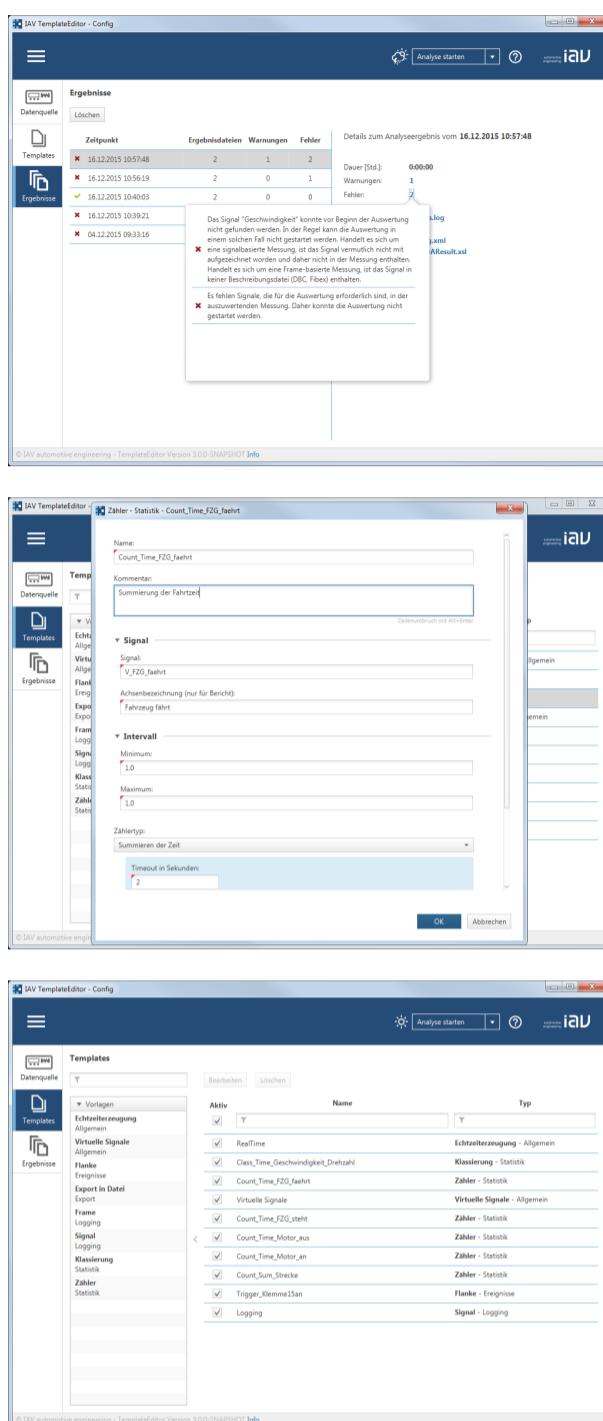
contributed by Denny Israel

Area of use Analysis of vehicle fleet data

The next application was made by our company ([Saxonia Systems AG](#)) for IAV, one of our customers. The client is called *Template Editor* and is part of the [IAV AMeDA platform](#). The platform is a data analysis system for huge amounts of vehicle fleet data. The client is used to configure analysis which gets performed on the platform.

The client contains a template engine to render masks. The engine uses a combination of FXML files and metadata templates which is evaluated at runtime to transform user-input to XML files. Those written XML files are the configuration files which get deployed to IAV AMeDA platform for data analysis. The mechanism is very generic and new templates can be easily added by defining an FXML and an XML file.

uploading, the analysis is tested locally with a small amount of data directly within the Template Editor. The user can review the results of the test executions and adjust his configuration if necessary.



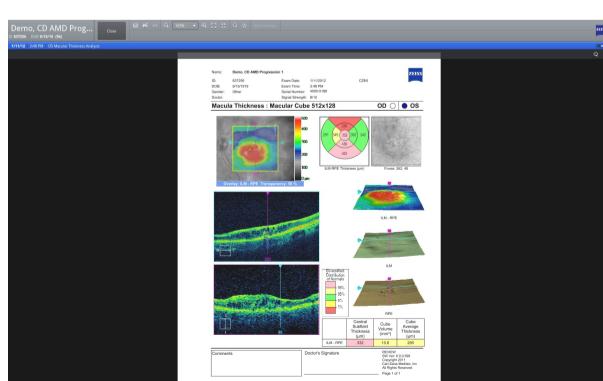
Results of local analysis, a configuration template and the list of all configurations.

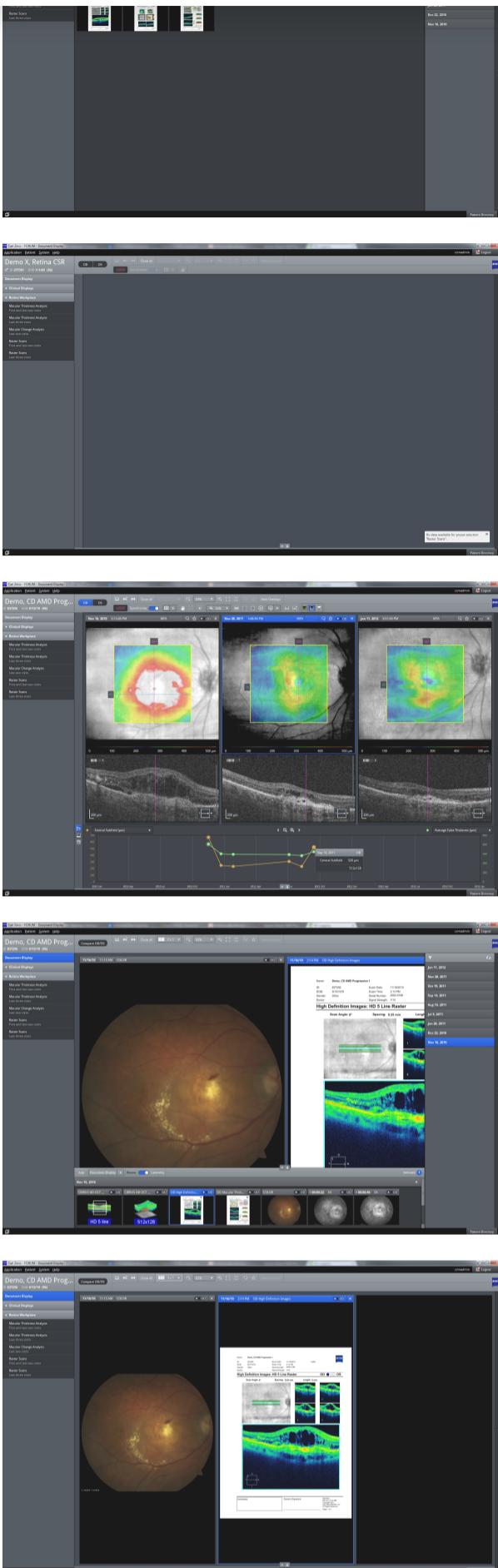
FORUM Carl Zeiss Meditec AG

Area of use Medical

contributed by Alexander Casall

The following client is developed by our ([Saxonia Systems AG](#)) customer Carl Zeiss Meditec AG. It is an archive software for clinical patient data in ophthalmology. It's a mix of Swing and JavaFX and it is still in migration. The possibility to mix both technologies was very important for the ability to release new versions until the migration is done. As you can see in the screenshots, Swing and JavaFX were mixed multiple times, which results in challenges regarding the synchronization of the EDT and the JavaFX thread, focus problems, problems with shortcut handling and look and feel differences.





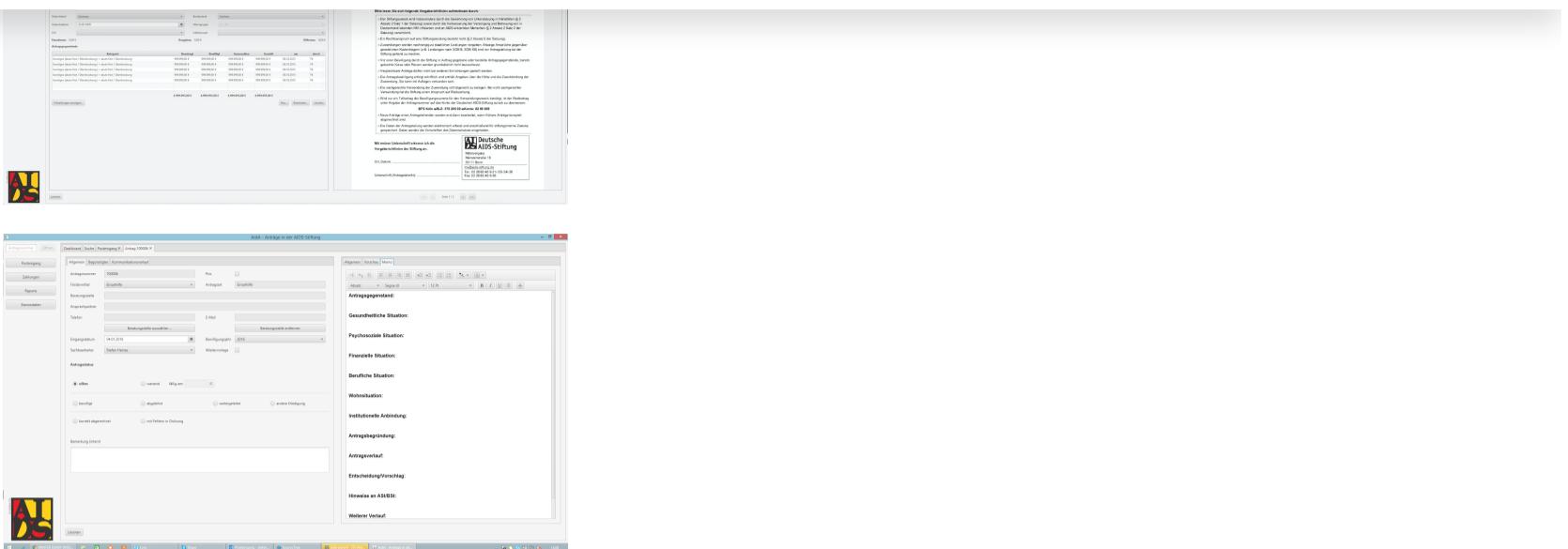
AIDA German AIDS Foundation

contributed by Manuel Mauky

Area of use Office

The “Deutsche AIDS Stiftung” (eng. German AIDS Foundation) is helping people that are affected by AIDS or HIV by providing financial support and supporting projects in this field among others. To do this, the foundation needs to handle scanned documents and applications, administrate persons and personal data and manage financial transactions. For this purpose, a new JavaFX application is created as a replacement and enhancement for an old desktop application.

The application is created with the [mvvmFX](#) framework. We are using CDI as dependency injection container and JPA for persistence. Interesting tasks were the fast loading and processing of large TIFF documents and the auto-saving of the application state to the database without a specific user interaction.



MuseuID Museum Palaeontology of URCA

contributed by Angelica Leite

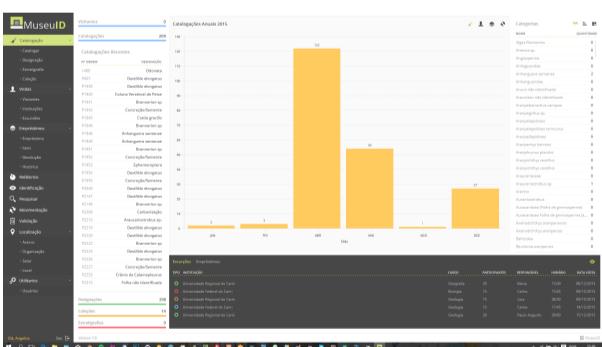
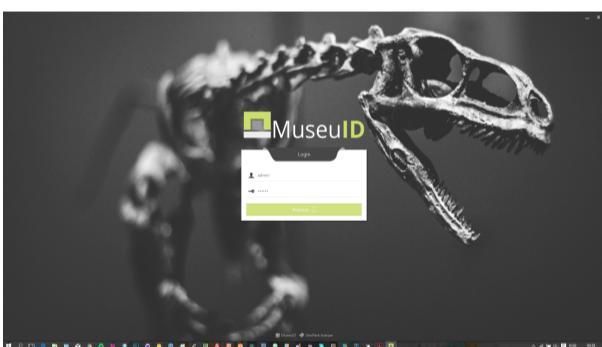
Area of use Office

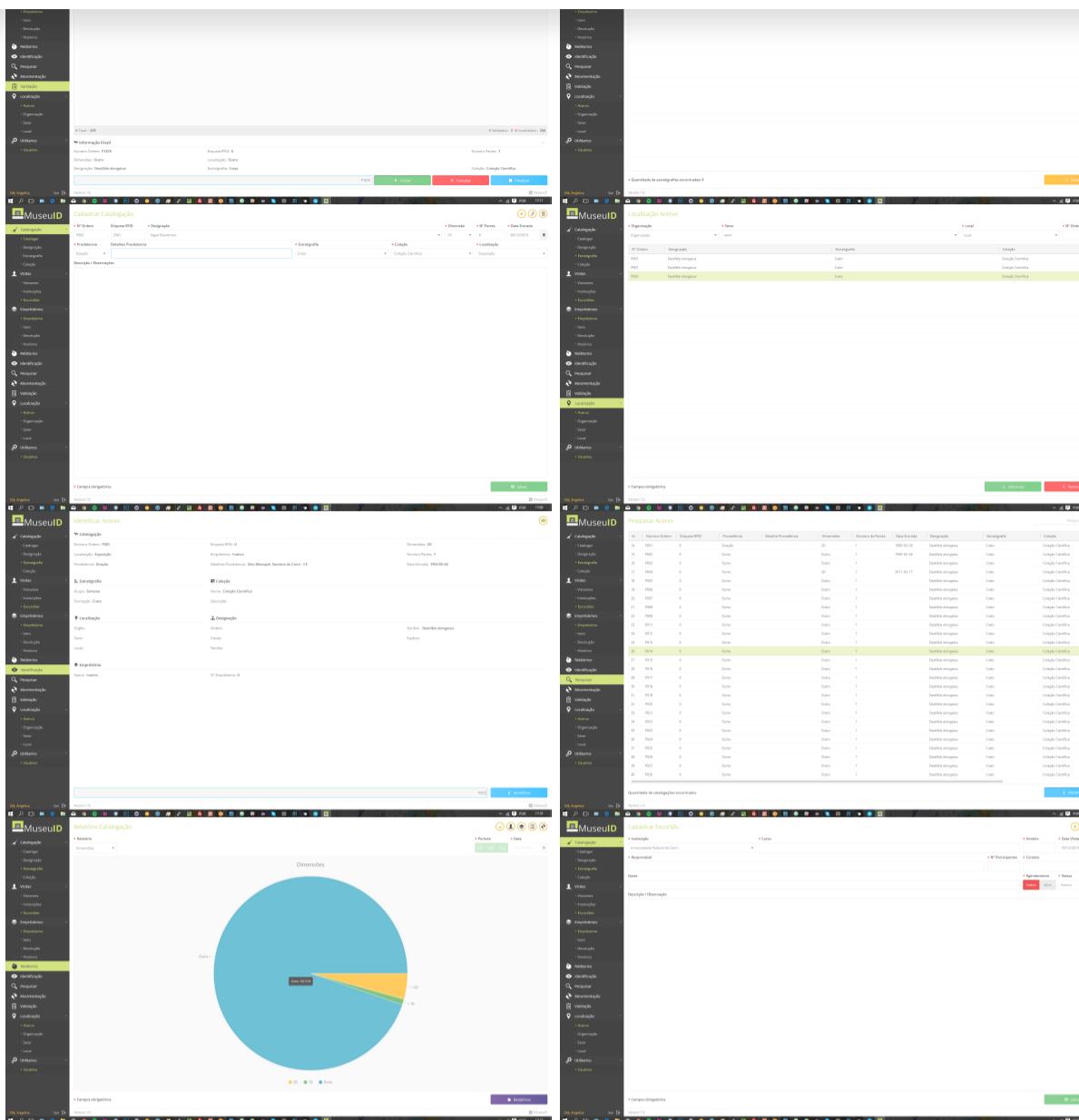
The software assists the Museum of Paleontology in Santana do Cariri. It manages the collection of fossils and museum activities.

MuseuID offers the following features:

- registration of visitors
- management of assets
- collection of research data
- graphical reports about visits

Some features such as authentication and identification are integrating RFID technologies. In addition, the application provides statistics and spreadsheets that can be exported.

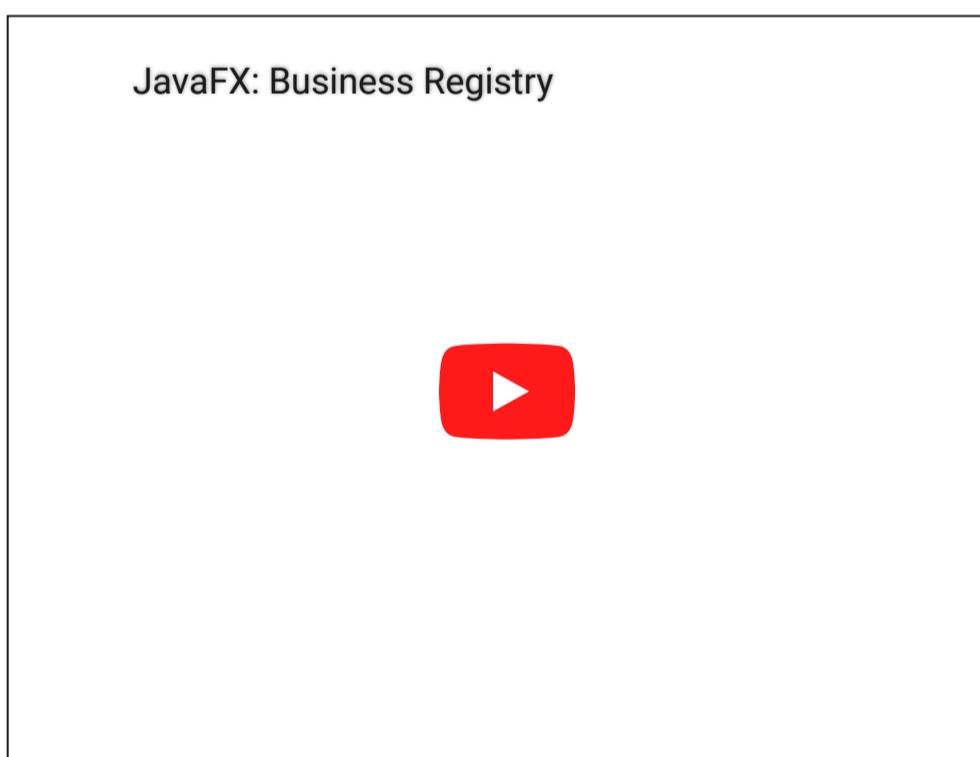




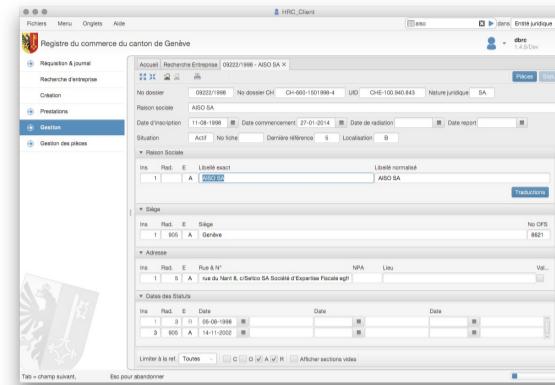
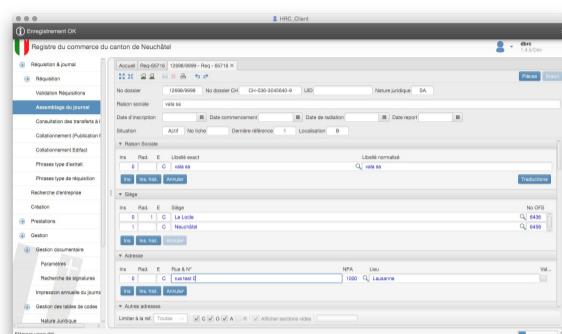
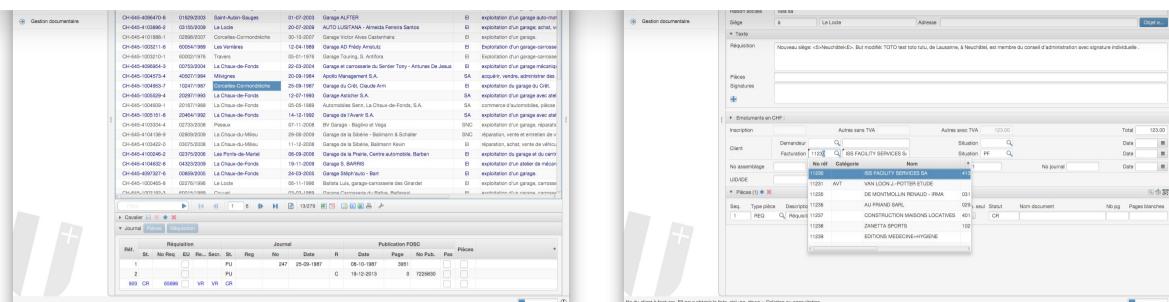
HRC-Matic AISO

contributed by [Dirk Lemmermann](#).

Area of use Office



HRC-Matic is being used by registries in Switzerland to register new businesses and to administrate the master data of existing businesses. It is a pure database application with a strong focus on keyboard navigation. The users have to be able to quickly enter a lot of data about businesses. This is still a weak point in JavaFX but AISO was able to find a solution.



NEOS – New Eurovision Operations System EBU contributed by Dirk Lemmermann.

Area of use Television



NEOS is being used by EBU to ensure TV and radio transmissions travel from one location to another. „Ensuring“ means that all required resources for the transmission will actually be available at the time of the transmission. Resources include satellites, satellite dishes, fiber optic networks, multiplexers, and so on. The application has 150 concurrent users and is implemented as a client / server solution. The JavaFX client communicates via REST service calls with the server and its database.

