



# Technology MX4

Technology MX4, based in Canada, is a company that works in the field of optimization technologies for complex problems.

## About MX4

Technology MX4 is specialized in the development of web applications for K12 schools, which also includes providing training and user support.

## ZK x MX4

ZK is used in our main product called Trapeze School for the automatic creation of school timetables. The SAAS application targets K12 schools and can handle multiple school configuration and constraints. This tool is offered in 2 languages (French and English) and is being used by more than 150 schools across Quebec.

The team is composed of 5 engineers; 1 for the User interface using ZK and the others are working on the backend micro-services and AI engine. We started the project in 2011 and we have an ongoing delivery process to offer new features every 6 months.

We use the following technologies in the project: ZK, Hibernate, Tomcat, Rest, Kafka, ActiveMQ and PostgreSQL.

## Why ZK

We evaluated developing our web application in JSP and we built a small, but complete application that includes our principal needs using 3 different frameworks: OpenXava, Vaadin and ZK. ZK was the easiest and fastest one.

ZK was the easiest to use in the sense that it hides and handles the AJAX part, so you don't have to worry about passing information between the server and the client. As a result it saves the developing

*"Simplicity (AJAX) and rapid development."*

time a lot so we decide to go with ZK.

## The Best of ZK

We recognize ZK's value: simplicity (AJAX) and rapid development. In particular we find ZUL and Zscript language very convenient as they allow us to try different looks and components for rapid mockup. This helps our clients to comment on our design before going in full development.

## The Result

We developed the first version using the MVC pattern and now we are moving on to the MVVM pattern and we loved it.

We are looking to build a new product with more powerful features to extend our offer and the plan is to definitely keep using ZK.

The screenshot displays the TRAPEZE ÉCOLE web application interface. The main window shows a course schedule grid for 'École Démo' for the 'Année 2020-21'. The grid is organized by 'Groupe' (Group) and 'Horaires' (Hours). The grid shows various activities such as 'Univers Social 101', 'Anglais Régulier', 'Français 101', 'Art 101', and 'C-Sports Sec 1' across different days and periods. A modal dialog titled 'Activités simultanées - Aperçu' is open, showing details for 'Activité #1' and 'Activité #2'. The interface includes a navigation menu, a search bar, and a footer with copyright information for '© 2011-20 Technologie MX4 Inc. Tous droits réservés. v20.0.0'.

### About ZK

ZK is the leading enterprise Java Web framework with more than 1,500,000 downloads. ZK is deployed by a large number of Fortune Global 500 companies, including Barclays, Swiss RE, Roche, Deutsche Bank, Sony, Sun Microsystems, and Toyota, providing them with the ability to rapidly create rich Ajax enterprise level applications.

### Contact us

Potix Corporation

[info@zkoss.org](mailto:info@zkoss.org)  
[www.zkoss.org](http://www.zkoss.org)