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Merging the exam timetables of two or more campuses

Case study background

One of our existing o!Timetable clients recently approached us with a problem that they could not solve : Due to a recent merger, they had to consolidate the exam timetables of more than one campus into one. Even worse, the different campuses had very different time constraints : on the main campus students are allowed three exam sessions per day, but logistic constraints on the other (smaller) campuses, make the use of an evening session impossible. It was decided to reduce the size of the timetable for the entire institution, but they could not manage to fit the timetable for the main campus into the new number of sessions. Another problem was the use of Fridays and Saturdays, which presents a problem for a large number of students who have religious objections to writing exams on these sessions. Abacus was asked to use current registration data to create a reduced timetable for the main campus, and to accomodate certain religious groups by preventing those students from writing exams on certain sessions. We looked at the June exam timetable that was actually used, and created a new June timetable for the same students and subjects, using our powerful o!Exam.

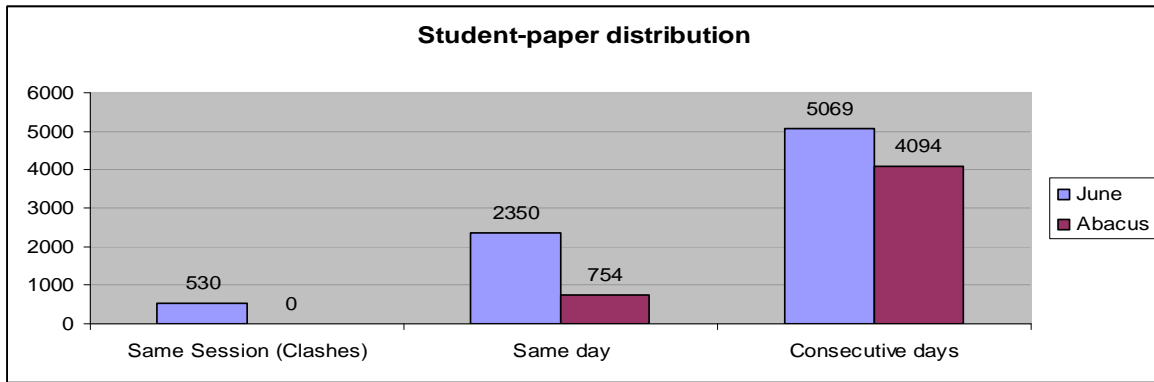
Results

Below is a comparison between the Abacus timetable and the old timetable. By using real registration data, we were able to identify the religion of students, and packed a timetable that used the second session on Fridays only for papers where the students have no religious objections.

	Previous Timetable	New Abacus Timetable
Days	20 Days	Reduced to 18 Days
Sessions	49 Sessions	Reduced to 32 Sessions
Religion	Problems accommodating all groups.	All groups accommodated.
Clashes	530	0

The greatest improvement was in the spread of exam papers for students. On the old timetable, hundreds of students had clashes, and thousands wrote papers on the same day or consecutive days. Clashes create a huge logistic burden on the Exams Department, while poor spread and consecutive papers lead to poor academic performance. Abacus was able to pack a timetable with no clashes, and

greatly improve the spread for thousands of students.



o!Exam

Our extensive knowledge of timetabling in the South African higher educational sector has been applied to create o!Exam according to international best practices. Our software allows full control over the collection of data and requests, and then creates an optimised timetable based on factors like student paper spread, work distribution, cross-venue splits and venue utilisation. Specialised blocks can be defined to allow you to block out specific times or venues for groups of students or subjects. Locks can be used to place specific papers on a fixed day and time.

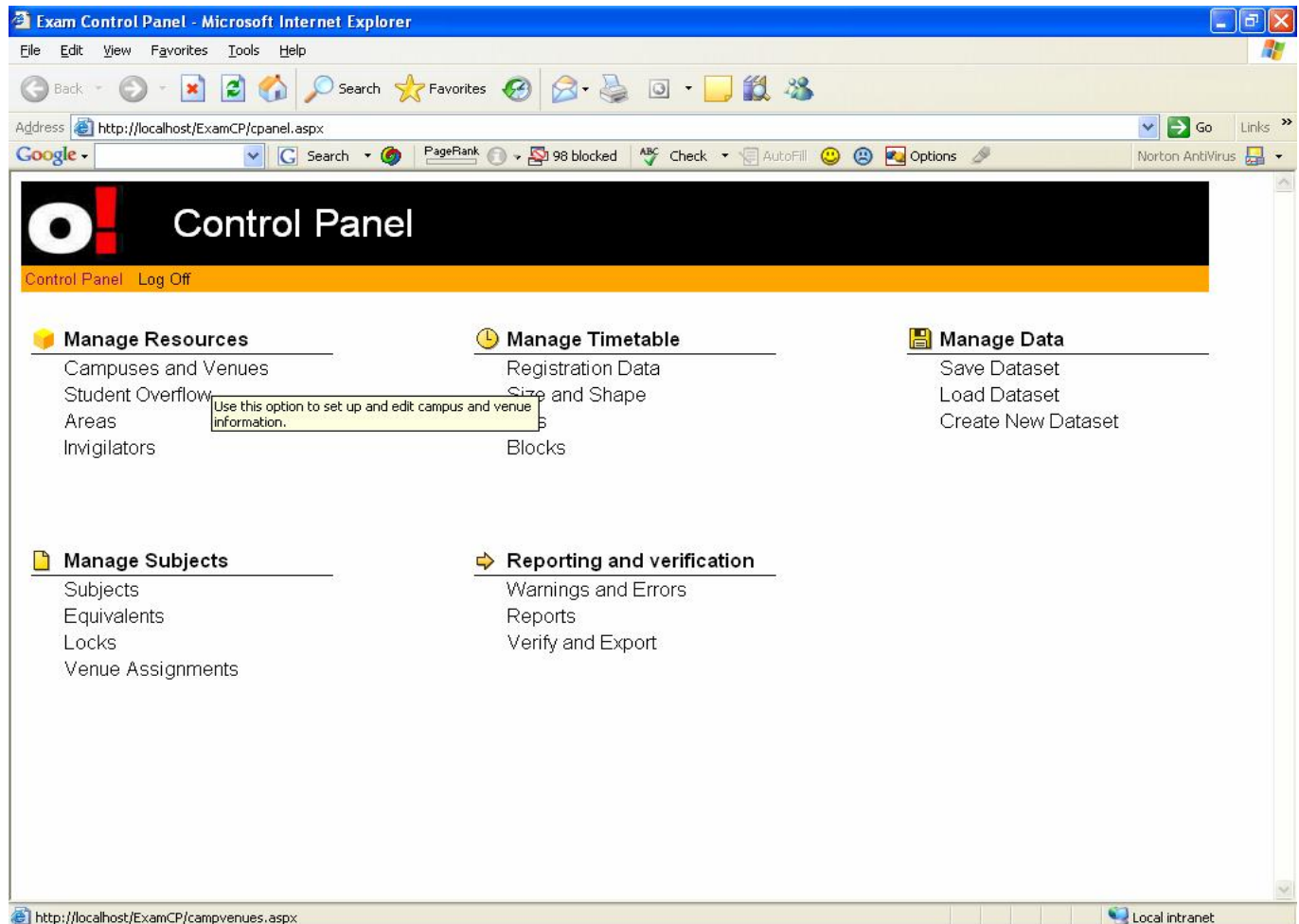
Free Trial

To demonstrate the power of our product, we are offering an opportunity for institutions to compare the quality of an existing timetable with one created by o!Exam. Institutions can send us the data required to create a timetable for an exam that has already been scheduled and finalised. Abacus will then use o!Exam to create a new timetable for that exam. We will provide a detailed comparison report between the two timetables, and allow the institution to compare it to the timetable that was actually used for the exam. Typical results include a dramatic reduction in students that write papers on the same or consecutive days, or even a shorter exam period. Timetables created with o!Exam have no clashes as all student subject registrations are taken into account.

Institutions that wish to participate can contact us for full details regarding data formats, terms and conditions.

Version 3 : The shape of things to come

The Control Panel



For Version 3, we have decided to consolidate all our existing data editing and management tools into one, easy-to-use web Control Panel. This will provide users with a simpler, more powerful interface. From the Control Panel, users will be able to edit and upload data (including bulk uploads), get detailed reports, or access the conventional WebEditor and WebViewer for multi-user data capturing.

Version 3.0 features and improvements

Version 3 is due for release soon, and will provide our clients with more inclusive error and problem checking, better memory management, faster solution generation and superior optimisation. All of this will be available from a new, more intuitive graphical user interface, for complete control over the entire timetabling process.

Our international partners, ILOG, have recently released newer versions of their Solver and CPLEX optimisation libraries, and we are adapting o! to make the best possible use of these improvements.

About Us

Integrear Abacus is currently the market leader in providing timetable solutions to higher education institutions in South Africa. Our o! suite of products consists of

- o!Timetable for the creation of class timetables.
- o!Exam for the creation of exam timetables.
- o!Booking for web-based venue bookings and management.

Our **o!**Timetable clients include

- North West University
- University of Johannesburg (Formerly RAU)
- University of the Western Cape
- Durban Institute of Technology
- University of the Free State
- Tshwane University of Technology

Our **o!**Exam clients include

- North West University
- University of the Western Cape
- Durban Institute of Technology
- University of the Free State
- Tshwane University of Technology

Our **o!**Booking clients include

- North West University
- University of the Western Cape
- Durban Institute of Technology
- University of the Free State

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