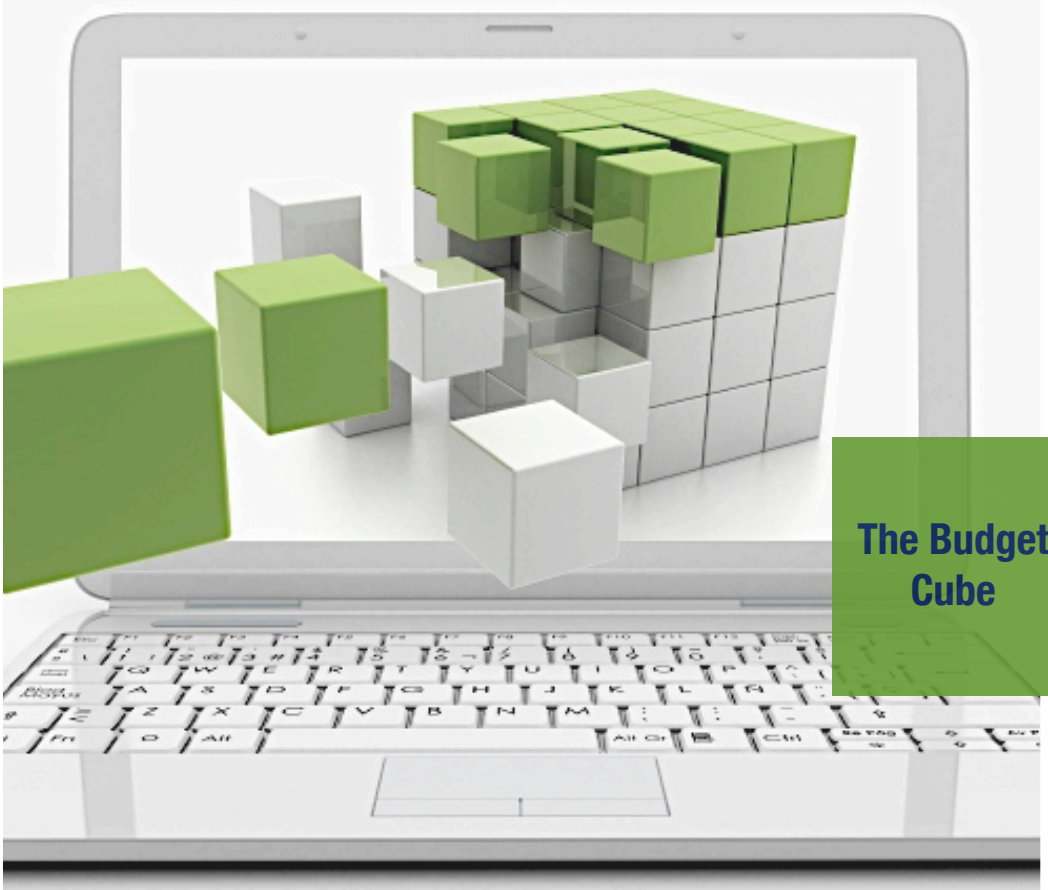
UNIVERSITY OF TORONTO

IN THE LOOP

INFORMATION TECHNOLOGY SERVICES

September 2012
Volume 1, No. 2

A New Platform for Operating Budget Data



The Budget Cube

Planning and Budget reduces time spent on labour intensive, non value-added activities with the *right* tech tools

NEW PLATFORM FOR OPERATING BUDGET

Remember that scene in The Matrix when Neo is challenged by the 3 agents? In a moment of enlightenment, Neo sees the agents as green binary code and is able to overpower them. Like Neo, our abilities can often be enhanced through a deeper understanding of data and the information they represent.

Given the current operating environment, the **Planning & Budget Office (P&B)** is looking to the next generation of enterprise resource planning software solutions to transform the University's budget process and improve our capacity for budget analytics.

With assistance from the **Enterprise Applications and Systems Integration (EASI)** team, P&B has begun developing a budget data store and planning platform using Cognos TM1 from IBM. From this data store, we will develop analytical data cubes, customized web reports, dashboards and predictive modeling tools. The technology is designed with web-based, read-write functionality, introducing the possibility of a new distributed model for collecting and distributing budget and enrolment plans.

The new platform will replace the Microsoft Excel-based budget model that is currently used to manage the University's operating budget allocations (now $1.8B) and reports. Excel is a highly flexible data processing application, perfect for ad hoc analyses and tailored reporting. However, budget allocations and division specific reporting require consolidation of data from a large number of information systems from across the University. Integrating these data sources using Excel is challenging, time consuming, and prone to error.

EXCEL MODELING CHALLENGES:

- Manual and error prone processes
- Complexity of look ups and links between files
- Insufficient data security
- Difficult to ensure version

TM1 – A DIFFERENT TYPE OF OLAP

TM1 differs from other OLAP products in that it is a RAM-based OLAP technology. This means it stores its models in memory and performs **"just-in-time"** processing. This is done efficiently by storing only the lowest level elements in a model. In addition, TM1 only holds in-memory those numbers that have changed. Other OLAP technologies store pre-calculated consolidations and other derived values, which in a large cube, requires immense processing power.

Cognos TM1 stores and presents data as multi-dimensional Online Analytical Processing (OLAP) cubes. Individual data points are identified by selecting attributes associated with each of the cube's dimensions. Data are stored in-memory and budget managers or analysts can change or enter new data in real-time for exceptionally fast analytics. TM1's Web and ETL tools can also be used to update data from web forms, transactional systems and live databases. The development of TM1 data models often involves the development of smaller data cubes for targeted distribution. As a result, solutions can be customized to support scalability and distributed planning paradigms. This should make staggered deployment of TM1 applications across the University easy.

Cognos TM1 will add collaborative planning and budgeting solutions, multi-dimensional modeling, data warehousing and additional performance reporting capabilities to the University of Toronto's current budgeting practices. It will reduce the time spent on labour intensive, non-value added activities and will make budget data accessible to University decision makers in a more timely fashion.

The TM1 Data Store and Budget Platform will be rolled out over the coming year, with implementation in time for release of the 2013-14 budget. The initial release will include online submission of source data, an interface to manage allocation of divisional operating budgets and online reporting tools via the UTBI Cognos portal.

~Questions about the Planning & Budget TM1 project can be directed to Al Lecointe at al.lecointe@utoronto.ca.

NGSIS: PROJECT LIFT OFF

First applications begin rolling out of NGSIS

In March 2012, the first year of a multi-year plan for the Next Generation Student Information Services Program was approved by the NGSIS Steering Committee. The plan includes a mix of approximately twenty service improvements for the current year, while at the same time - devoting significant resources to redeveloping some of the core components of ROSI to enable large scale change later on. Service improvements selected for this year will impact students and staff in a wide variety of areas including student life, student accounts management, registration, and recruitment.

Some highlights of what has been delivered so far …

One Stop Student Registration and Financial Status Dashboard

One Stop for short is the student web service main page which prominently displays relevant academic, administrative and financial information. Not only does "One Stop" inform students of outstanding items, it also provides them with the links and connections they need to "settle up". Students will now be better informed about important registration and financial status and will be able to make informed decisions and act upon registration and financial problems sooner to minimize detrimental effects. In turn, registration and student accounts staff will spend far less time guiding students to key information.

Athletic registration system for Varsity Blues athletes

The new tool ensures athletes and teams meet eligibility requirements for competition. Previously, student-athletes registered for teams by filling in multiple forms and then athletics administrative staff cross-checked the academic eligibility of every participant to ensure all rules and regulations were followed. The new system is expected to significantly streamline this process by providing real-time access to student registration information.

Powerful new planning tools

Enrolment services and individual recruitment offices will get powerful new planning tools which allow staff to better target recruitment activities. The applications allow almost instantaneous access to critical planning information such as:

- ***What percentage of applicants from Toronto select the U of T as their first choice?***
- ***How many female engineering applicants from a regional area select U of T?***
- ***How has U of T's yield rate changed over the years for different programs?***

Fall is expected to be a busy time for the project team with the scheduled release of half a dozen new applications. Examples of some of the exciting new tools planned for students range from an on-line residence gateway which will allow students to rank their residence choices, to a web based course search tool for A&S, UTM, UTSC and APSC students. Improvements for administrative staff will also continue to be rolled out with some much needed "repairs" to the current system to address long standing and time consuming process issues related to UHIP and Student Accounts management.

Project highlights, as well as information on some of the large strategic projects, will continue to be posted to "**In the Loop"** over the coming year.

In the meantime, we invite you to explore the NGSIS website at www.NGSIS.utoronto.ca to see a complete list of the projects underway for the current year.

PLANNING AND PERFECT INFORMATION

Information Flowing Freely Series

In microeconomics, a state of perfect information is assumed in some models of perfect competition. That is, assuming that all agents are rational and have perfect information, they will choose the best products, and the market will reward those who make the best products with higher sales. Perfect information would practically mean that all consumers know all things, about all products, at all times (including knowing the probabilistic outcome of all future events), and therefore always make the best decision regarding purchase.

-Source: Wikipedia

Who would have thought that in 2003, spam would become such a significant problem in e-mail that organisations would have to spend budget-significant dollars buying anti-spam software? When building out server capacity in the past – "one server per app anyone?" – were energy costs part of the calculation? How about people replacing their laptops or desktops with personal smartphones or tablets, or the explosion of mobile app expectations?

The point: It's hard to predict the future. *(No kidding Sherlock.)*

So to act in a manner that prepares for the future requires a lot of data collecting – from disparate sources like information gleaned at meetings – even if tangential to IT; scholarly and trade publications; popular media and news sites; social networks and blogs; personal experiences and frustrations.

I'm really looking forward to the new ITS Service Catalogue being released. It will contain information about the services that ITS and eventually other units provide to consumers across the University. Visible will be owners, contact information for feedback and support, eligibility for access, service descriptions and terms, costs where applicable, security and accessibility data.

A catalogue opens up the opportunities for community members to more readily find out what is currently available. This in turn lets others know whether to develop a service because there is a gap or to refrain from creating a duplicate because one exists. A catalogue helps governance bodies make decisions on the allocation of scarce resources and also the relative priority of new service requests. If we can view into our service portfolio we can identify gaps.

The catalogue is a major puzzle piece in supporting long-range planning processes, and improving our decision-support and decision-making capacity for IT services. Combined with Enterprise Architecture, a configuration management database (future), real-time cost of IT data, a consistent project-management data collection system, readily-available client feedback mechanisms, committee input, and other sources of insight, we are increasing our data points for reaching the grail of perfect information. Of course, perfect information is just an ideal, not a reality. But, adding data points will improve our capabilities for IT planning for the University.

Keep your eyes on the new and improved ITS Web site and look up the Service Catalogue. It's a work-in-process but one that will grow and improve with time. We look forward to your feedback, and even more to the utility that we think you will find within the catalogue.

-Marden Paul, Director of Planning, Governance, Assessment and Communications, ITS

UTM COMPUTING SERVICES

Project Updates

1. **Project SharePoint** is expected to be complete by the end of September 2012. The project's main objective is to promote collaboration and easily share information with internal and external stakeholders. In the initial launch Computing Services and two other departments will begin to migrate existing collection of information stored on wikis and network drives.

2. **Full disk encryption (FDE)** being rolled out on all managed PCs and Macs. Phase 1 focuses on faculty and staff that are mobile and store and/or remotely access sensitive information using their laptops. FDE is now also part of standard desktop rollout of new PCs and Macs.

3. **Help Desk** will return to extended hours for Fall and Winter terms. Students, faculty and staff can reach help desk at the following coordinates.

Phone: 905-828-5344
Location: CCT Building, 3133
Hours:
Monday to Friday 9am to 10pm
Saturday to Sunday 9am to 5pm

TECH NEWSFLASH

After 25 years, Microsoft changes their logo "to signal the heritage but also signal the future — a newness and freshness." - ***Jeff Hansen, Microsoft***

EDUCAUSE

THE BEST THINKING:
The EDUCAUSE Annual Conference is the premier gathering of the brightest minds in higher education IT.
November 6-9, 2012
Denver, CO and Online

UTmail+ UPDATE

Over 90K students onboard

The vast majority of students have now switched over to UTmail+. Current students have until **October 31st** to switch to UTmail+ and transfer their e-mail content to the new e-mail system. UTORmail service **for students** will be **phased out in November**.

The UTmail+ project was a great success! The project team was awarded the **2012 Excellence Through Innovation Award** from the Office of the Vice-President Human Resources and Equity. ***Congratulations!***

INFORMATION TECHNOLOGY SERVICES STAFF UPDATES: NEW HIRES

Welcome to Information Technology Services:
Hossein Aliabadi
Ken Tsang
Laura Vanderkraan
Linda Wilding *(returned from secondment)*
Mary Kesic
Michelle Da Ponte
Sarosh Jamal
Titus Hsu
Vlad Vinogradov
Xiaoming Zhou

IITS ENCOURAGES INNOVATION AND ENTREPRENEURIAL SPIRIT THROUGH STUDENT MOBILE DEVELOPMENT

UTSC appStar

AppStar is a mobile application development contest run by the University of Toronto Scarborough (UTSC). Open to all UofT students taking a UTSC course, teams of up to five members were invited to develop an application for either iOS or Android devices for a chance to win a grand prize of $3000.

The guidelines for AppStar were made intentionally broad, allowing students to develop a variety of different kinds of applications, including games, study aids and commerce tools. As the contest was intended to encourage innovation and entrepreneurial spirit, all teams retain intellectual rights over their submissions, and are encouraged to see how far they can take their ideas. **The UTSC's Information and Instructional Technology Services (IITS)** department will be working with the teams to help promote the winning apps to the U of T community, either as stand-alone applications or through incorporation into the existing UTSC mobile application.

The competition kicked off in March 2012 with a mixer event, which provided students with an overview of the contest rules and encouraged collaboration between skilled developers and others with less technical experience. The contest was designed with several key milestones which help teams remain on track throughout the competition. First, teams were asked to submit a brief description of their application idea, highlighting the concept, the target audience and an overview of the planned functionality. Second, teams were asked to provide a more concrete plan of their application, including a project plan and details around the design and functional elements. Third, teams presented their in-development applications at an open demonstration event, where members of the UTSC community were invited to participate. And for the final milestone, students will be asked to submit their completed applications for evaluation by a team of judges representing IITS, Communications & Public Affairs, faculty and the Scarborough Campus Student's Union.

With a group of fifteen teams approaching the final submission deadline, we have been very pleased with both the level of interest in the competition and the quality of the work so far. The winners of the AppStar competition will be announced in September, and we plan to make the contest an annual event.

UTSC
Tomorrow is created here.

Be social...

ITS is on Facebook and Twitter. Connect with us for the latest updates!

CONTRIBUTORS:

Al Lecointe, P&B
Cathy Eberts, Director NGSIS
Marden Paul, PGAC, ITS
Tamara Adizes, ITS
Trevor Rodgers, P&B
Zoran Piljevic, IITS, UTSC

EDITOR:

Tamara Adizes

NEXT ISSUE:

October 9, 2012

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