PowerScheduler: Planning for Scheduling

Starting the scheduling season off on the best foot!

Overview

This presentation will cover the following key questions:
1. What resources are available to assist in preparing student schedules

2. What key decision points and milestones should be foreseen and planned for

3. When using PowerScheduler, what might an ideal scheduling season look like

4. What can go wrong, and how to plan for contingencies

Resources

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There are several useful resources available to assist with the planning and execution of creating student schedules using PowerScheduler:

1. Other PSUG sessions: other PSUG sessions have been or are currently occurring which provide valuable how-to information on completing specific tasks. Even if you don't attend the sessions, take a look at the documentation they provide.

2. PowerScheduler User Guide for ___: No matter what version of PowerSchool you are running or whether you are planning to do a "Load" or a "Build" there exists a PowerScheduler User Guide for you that will walk you through step by step and screen by screen the completion of most of the major tasks involved in scheduling.

3. Veterans: There are now a pool of people in Alberta who have gone through several scheduling seasons and can help you out if you face an unexpected or unusual challenge. Make some friends while you are here!

Key Decision Points

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There are several decisions which should be made well in advance of scheduling season as they will typically determine key timings and milestones.

1. Load-only vs Build

2. Course catalog
   - Additional consideration needs to be put into this when using an external tool such as Career Cruiser to handle course requests

3. Student request collection: Process, timing, impact and change process
   - Additional consideration needs to be put into this when using an external tool such as Career Cruiser to handle course requests

4. Teacher assignments/scheduling

5. When to provide schedules to students

Key Decision Points: Load-Only vs Build

In PowerSchool there are two potential main phases:

Build

During the Build phase, PowerScheduler is fed information including student requests, teacher assignments and a number of constraints and it performs a Build, where it generates a Master Schedule

Load

During the Load phase, PowerScheduler takes the student requests and attempts to schedule them into classes based upon the priorities defined in the system as well as a number of constraints entered.

The choice of Load-Only vs Build is actually a choice of how you will create your schedule - whether by doing it manually/externally or by having PowerSchool create them

Key Decision Points: Course Catalog

A key input for the entire scheduling process is to determine the course catalog. This is the list of **which courses will be offered, or potentially offered, in the upcoming year.**
Creating this catalog for the future year requires that a school:

1. Determine any new courses that they are going to offer (or potentially offer) and have those added to the PowerSchool course database

2. Determine any courses that they are no longer going to offer (or are no longer able to offer either due to Alberta Ed requirements or changes in school configuration) and have those removed from the future year catalog

3. When working with external systems such as Career Cruising, you additionally need to ensure that the course catalog available for students to choose from inside that tool matches the courses catalog available inside PowerSchool, otherwise data will not import cleanly

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Key Decision Points: Student Request Collection

Student Requests are critical, yet depending upon the school situation they might very well be used in different ways.

<u>Used to determine course offerings</u>
Some schools may wish to use Student Requests to determine what courses are offered. They might want to gauge interest in some potential new courses, or need to make a choice about which of a couple of courses will have more interest.

<u>Used only to populate schedules</u>
Other schools may only use Student Requests to facilitate the actual matching of student requests to schedules.
Determining how you intend to use Student Requests will inform several decisions, including:
a) How early in the year to capture requests
b) How to structure the student request screens and process
c) How to process changes to requests after initial data gathering

Key Decision Points: Student Request Collection

There are additional considerations available for how to manage the collection of student requests.

a) At some grade levels it makes sense to have students enter their own requests, at other grade levels it makes sense for an administrator to collect the sheets and to have them entered by a school staff member

b) The need to have a parent sign off on the course requests may be a factor – if so, you need to determine if the tool you are using to collect course requests will meet that need or if you need a paper sheet with a signature as an additional input

c) In many cases, students who are pre-registered for school may not actually enter their own requests – having a process to collect those requests and get them entered is important

Key Decision Points: Teacher Assignments/Scheduling

Another key input for the entire process is Teacher Assignments.

In a Load-only, this would also include an actual timetable for each teacher.

In a Build and Load, this would include
- How many sections of each class each teacher is teaching (but not detailed timetables)
- Any constraints which are in place for the scheduler to adhere to (for example, how many sections are desired in semester 1 vs semester 2, or whether a given class must be scheduled only in the morning, etc.)

Key Decision Points: When to Provide Schedules

The decision about when to provide schedules seems obvious, yet it can matter a great deal.

One of the great powers of PowerScheduler is that it allows you to potentially have a timetable completely created and student schedules created before the end of the year, allowing every student to start the summer with a schedule for the fall.

Taking advantage of this, however, requires that you structure your school processes to accommodate this. If it takes too long to capture requests, to generate teacher timetables, etc. then this would not be feasible. It might not even be desirable if traditionally a school accepts a lot of changes during the summer.

Determining when to provide schedules is going to inform:
1. What deadlines to put in place for generating schedules
2. When schedules are committed for a school

Scheduling Season Begins

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January/February/March	1. Before anything can be done for the future year, the PowerSchool Administrator needs to create the future year. The start and end dates for the future year be finalized by the district 2. Initial discussions about what courses are intended to be offered in the future year should be held. ● Licensing for new courses should be procured and put into place ● Courses missing from the catalog should be added
March/April	1. Scenarios should be created in each school (even schools who don't use PowerScheduler if they are feeder schools for schools who do) 2. Course Request screens should be created for each grade level (or external tools like Career Cruiser should be configured) 3. Next Year information for students should be populated and verified 4. Pre-registered students should be entered into PowerSchool 5. PowerSchool accounts should be created for students 6. Students should log in and complete course requests

Scheduling Season Begins

April/May	1. Student requests reports are reviewed 2. Changes to student requests are made 3. Course-section offerings are planned 4. Teacher assignments are planned
May/June	1. Schedules are created (either built using PowerScheduler, copied from a previous year and modified, or created outside PowerScheduler and entered manually) 2. Student cohorts are determined (when applicable)
June/July/August	1. Students are enrolled into classes for the upcoming year, either manually or through a Load 2. Schedules are committed to live side 3. End of year process is completed by District PowerSchool Administrator

Scheduling Season Begins

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What Can Go Wrong and How to Plan for it

An ideal scheduling season requires that things are done on time, so that things which are depending on them can be done on time. Delays in one area can affect other areas and can lead to problems or delays in the overall schedule.

However, things can and will go wrong. Planning ahead will allow a school to adjust for these. Below are some of the common issues which we will plan contingencies for:
1. Problems when collecting Course Requests
2. Incorrect options presented on Course Request Screens or in external tools
3. Delays in hiring teachers for upcoming years - uncertainties in course offerings
4. Uncertainties in numbers - some sections may be teetering on the edge of being offered
5. New Courses decided after the fact and not captured in request screens
6. Unexpected Resource Conflicts

Course Request Screens

Course Request Screens are used to provide students with a list of courses, and assist them with selecting courses for the future years.
They require:
- Scenarios to be set up in both feeder and future schools
- Student Next Year/Next School/etc. information populated for students
- Course Request Screens to be set up for students
- Student PowerSchool accounts to be created (to allow students to self-request courses online)

Schools can minimize problems arising from course request screens by doing dry runs with individuals at different grades. Choose specific students to enter example course requests for, then walk through the process to submit the results.

Course Request Screens

Despite best efforts, it's possible that course request screens be configured incorrectly (either missing a course, or allowing request of an incorrect course, etc.).

Typical solutions to this are:
1. Using the "Mass Add" or "Mass Remove" request options to adjust requests after the fact
2. Using the "Update Selections" tool to mass-edit existing requests (to adjust for an incorrectly chosen course number for example)
3. Re-processing requests for a specific individual through a counselor, secretary or principal

There do exist ways to adjust course requests after the fact. The important thing is to build enough checks and balances into your scheduling process to allow you to identify that there was an issue, and to ensure that staff are available who are trained in how to make these adjustments.

Dealing with Uncertainty in Courses or Teachers

A huge challenge for schools attempting to have Schedules By Summer! is the uncertainties they face regarding teacher numbers, teacher skill sets or student numbers for a given course. They may have had full intention of offering a course when they gathered student requests, but find themselves having to make changes in mid-June based on revised enrollment projections or staff changes.
There are tools in place that can allow you to more easily plan for and accommodate these types of changes.

1. Gather "Alternate" course requests when configuring your Course Requests Screens.
2. Create generic Teachers (e.g. Teacher X, Teacher Y, Teacher Z) to allow you to schedule courses in absence of having specific teacher names.
3. If manually scheduling students into sections **avoid placing students into specific sections until the very last minute** as it is impossible through the UI to mass-drop students from a section in PowerScheduler.
4. Take advantage of the use of reports to find students with common requests and mass select them.
5. Again, the use and familiarity with mass functions will greatly streamline last minute changes.

Unexpected Resource Conflicts

Surely no school would accidentally commit to a certain number of Foods classes without realizing that there weren't enough blocks in the schedule to allow everyone to use the Foods room, right? Actually, it's all too easy for something like this to occur. Resource conflicts can often go unnoticed until they suddenly become a problem. These types of issues are even more common in "hand generated" schedules where often decisions are primarily made based on the teacher availability and only as an afterthought do other resources get checked.

The best way to protect and avoid this is the use of the Rooms and Facilities options in PowerScheduler. By properly setting up the rooms and by making those resources a part of the process from the beginning, a school can leverage reports that will identify conflicts or can ensure that their Build Process doesn't accidentally introduce such conflicts.

The Room Schedule/Room Utilization reports are very valuable for this.

Dealing with the Unexpected in General

Despite the best efforts at predicting problems, unexpected things will always come up. For that reason it is important to put in place the following checks and balances:

1. Ensure staff is available who is familiar and comfortable with how to use mass functions
2. Become familiar with the reports that are available.
3. If there is a report that you really wish you had that would help catch specific issues you often come across, look into whether that report can be created by a customization (or possibly already is available in other districts).
4. **<u>Get lots of eyes to review schedules</u>**. Once they are "finished", show them to as many eyes as possible to see if anyone catches something.
5. Be prepared to change things in the first few days of school. There is always something.