

# **Scheduling Module 11**

# Rotating a Schedule

May 2015 v1.1







### **Version History**

Version	Date	Description
1.0	May 6, 2015	Initial document
1.1	May 8, 2015	Correction to rotation chart page 5

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### 1.0 Rotations

A rotated master schedule displays the sections of courses, in the order they actually happen on a given day.

There are two ways schools schedulers build master schedules:

- 1. The most common way is as a Flat schedule. This is very typical for secondary schools and is a direct reflection of the `scheduling board` used. Four (or 8) periods across the top, with various ways to indicated if the section is Full Year or Semester. After the schedule is complete, some kind of rotation is applied. In BCeSIS, that is through the use of Tumble Patterns. No secondary schools create a `scheduling board` with all of the rotations on it; it is far too complex.
- 2. The second way is a Rotated schedule. This is often done at the middle school level, again it is usually reflected on a `scheduling board`, but as there is more limited choices at a middle school the complexity of building it this way is reduced.

MyEducation BC has the ability to *build* a Flat schedule and then rotate it, after it is built. The master schedule, student schedules and attendance are all displayed, based on the `rotation` created.

**Note:** Schools that have double periods and take attendance in both periods must create a rotation.

Consideration should be given to the decision to rotate a schedule or not, as it will impact all users in these areas. The following section shows the results, views and discusses the implications of a using a rotated schedule.

#### **Example School Setup:**

Two day schedule (this is how the school chooses to schedule)

Four rotations:

1 <sup>st</sup> Rotation	2 <sup>nd</sup> Rotation	3 <sup>rd</sup> Rotation	4 <sup>th</sup> Rotation
1	2	3	4
2	3	4	1
3	4	1	2
4	1	2	3

Since this school schedules with 2 days, in order to accommodate these four rotations, the schedule rotates out to an 8 x 8 (4 regular blocks and 4 outside the timetable).





2	2 x 8	В			8 x 8									
		Days												
		1	2			1	2	3	4	5	6	7	8	
	1				1									
Periods	2			Periods	2									
	3				3									
	4				4									
	5				5									
	6				6									
	7				7									
	8				8									

Using the rotations outlined above, sections scheduled in 1(1), could\* rotate as indicated below:

-	2 x 8	3						8 x	8				
	Day	s			Day	s							
		1	2			1	2	3	4	5	6	7	8
	1				1	D: 2 P: 1	D: 1 P: 2	D: 2 P: 3	D: 1 P: 4	D: 1 P: 1	D: 2 P: 2	D: 1 P: 3	D: 2 P: 4
	2				2	D: 2 P: 2	D: 1 P: 3	D: 2 P: 4	D: 1 P: 1	D: 1 P: 2	D: 2 P: 3	D: 1 P: 4	D: 2 P: 1
	3				3	D: 2 P: 3	D: 1 P: 4	D: 2 P: 1	D: 1 P: 2	D: 1 P: 3	D: 2 P: 4	D: 1 P: 1	D: 2 P: 2
Periods	4			Periods	4	D: 2 P: 4	D: 1 P: 1	D: 2 P: 2	D: 1 P: 3	D: 1 P: 4	D: 2 P: 1	D: 1 P: 2	D: 2 P: 3
	5				5	D: 1 P: 5	D: 2 P: 5	D: 1 P: 5	D: 2 P: 5	D: 1 P: 5	D: 2 P: 5	D: 1 P: 5	D: 2 P: 5
	6				6	D: 1 P: 6	D: 2 P: 6	D: 1 P: 6	D: 2 P: 6	D: 1 P: 6	D: 2 P: 6	D: 1 P: 6	D: 2 P: 6
	7				7	D: 1 P: 7	D: 2 P: 7	D: 1 P: 7	D: 2 P: 7	D: 1 P: 7	D: 2 P: 7	D: 1 P: 7	D: 2 P: 7
	8				8	D: 1 P: 8	D: 2 P: 8	D: 1 P: 8	D: 2 P: 8	D: 1 P: 8	D: 2 P: 8	D: 1 P: 8	D: 2 P: 8





Sections scheduled in 1(2), could\* rotate as indicated below:

2	8 x 8													
Days					Days									
		1	2				1	2	3	4	5	6	7	8
	1				Periods	1	D: 2 P: 1	D: 1 P: 2	D: 2 P: 3	D: 1 P: 4	D: 1 P: 1	D: 2 P: 2	D: 1 P: 3	D: 2 P: 4
Periods	2					2	D: 2 P: 2	D: 1 P: 1	D: 2 P: 4	D: 1 P: 3	D: 1 P: 2	D: 2 P: 1	D: 1 P: 4	D: 2 P: 3
	3					3	D: 2 P: 3	D: 1 P: 4	D: 2 P: 1	D: 1 P: 2	D: 1 P: 3	D: 2 P: 4	D: 1 P: 1	D: 2 P: 2
	4					4	D: 2 P: 4	D: 1 P: 3	D: 2 P: 2	D: 1 P: 1	D: 1 P: 4	D: 2 P: 3	D: 1 P: 2	D: 2 P: 1
	5					5	D: 1 P: 5	D: 2 P: 5						
	6					6	D: 1 P: 6	D: 2 P: 6						
	7					7	D: 1 P: 7	D: 2 P: 7						
	8					8	D: 1 P: 8	D: 2 P: 8						

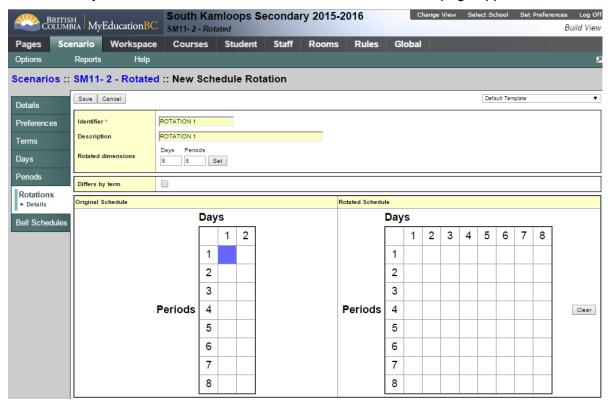
<sup>\*</sup>The choice of how the schedule rotates out is dependent on the school's scheduler. There is no one way to create a Rotation.





### 1.1 Create a Rotation:

- 1. Log on to the Build view.
- Click the Scenario tab.
- 3. Select the scenario you want to rotate, and click the **Rotations** side-tab.
- 4. On the **Options** menu, click **Add**. The New Schedule Rotation page appears:



Enter a name in the Identifier field.

Enter a **Description**.

Enter the Rotated dimensions

5. Select the **Differs by term** checkbox if you want to define a different rotation for each schedule term. If you select the checkbox, the **Select Term** drop-down appears. Select the first term you want to define a map for.

**Note:** If your school has different Rotations, in different Terms, please contact Level 1 for further support.

- 6. On the original schedule matrix on the left-hand side of the page, select a period and day. Then, on the rotated schedule matrix on the right-hand side of the page, select the periods and days in which you want that period to meet. Repeat this process for all periods and days.
- 7. Once complete click Save.





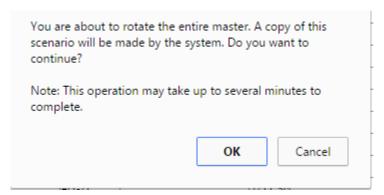
# 2.0 Apply a Rotation

After you build the master schedule and define the rotation map, you can rotate the master schedule, in the Build view. This allows you to verify the rotation is correct and is what you expected.

**Note:** The system automatically creates a copy of the current schedule and names it – current schedule (unrotated). This is done for safety; if there is an error in the rotation mapping, you might ruin the schedule you originally built. If this happens, you can use the original, unrotated copy and try again

### 2.1 Rotate the Schedule:

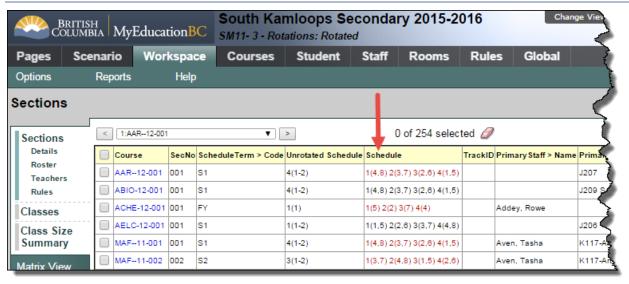
- 1. Log on to the **Build** view.
- 2. Click the Workspace tab.
- 3. On the **Options** menu, select **Rotation**, then **Rotate Schedule**. The application confirms you want to continue with the following message:



When the rotation is complete, for each section on the **Workspace**, the application displays the rotated schedule in the **Schedule** expression column:





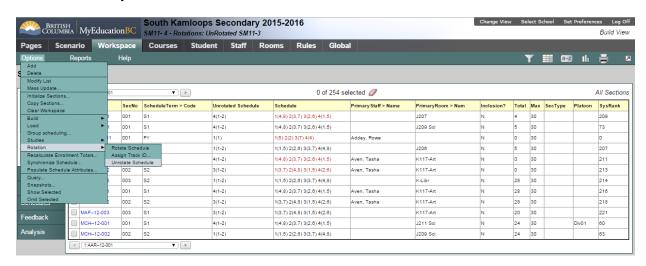


### 2.2 Unrotate the Schedule

If, after analysis of the master schedule and student schedules, the rotation applied is not correct you can Unrotate the schedule.

**Note:** You must Unrotate the schedule that was Rotated. You cannot Unrotate a *Copy* of a Scenario that was rotated.

- 1. Click the Workspace tab.
- 1. On the Workspace tab
- 2. Select Options > Rotation > Unrotate Schedule



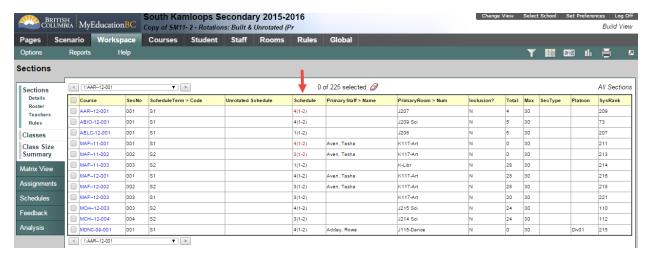
3. The following message will appear, ensuring confirmation:







4. Once complete the **Schedule** column will show the flat schedule expression, that was originally created:



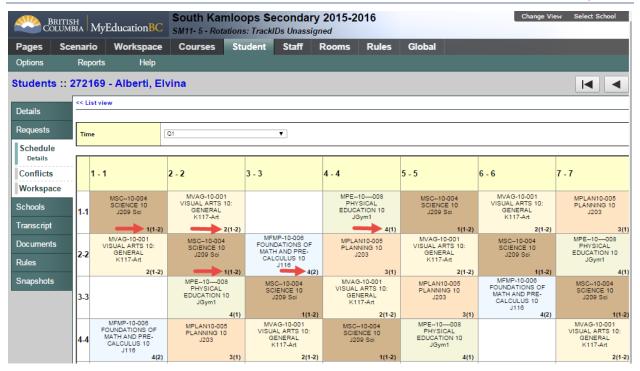
# 3.0 Track IDs

Track IDs are a way to assist in identifying the original Unrotated schedule expression of a section. If Track IDs are created they will be displayed in the lower right hand corner of the Matrix view on a student schedules:

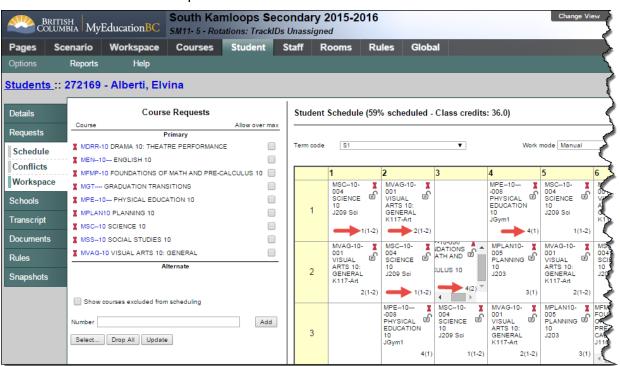
Student > Schedule > Matrix view:







### Student > Schedule > Workspace > Matrix view:



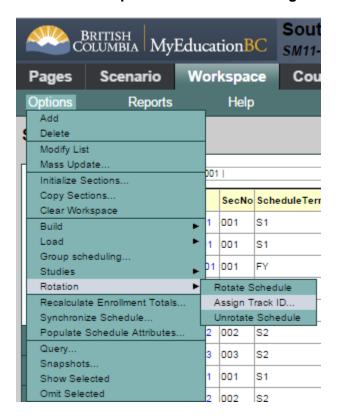




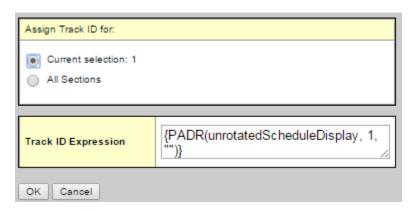
## 3.1 Assign Track IDs

In the Build view:

- 1. Click the **Workspace** tab.
- 2. Select Options > Rotation > Assign Track ID...



3. The **Assign TrackID** dialogue box appears:



**Note:** This can be run by **Current selection** which would be advisable, as individuals are learning the implications.





4. The default value in the **Track ID Expression** tells the system to 'Use the 1 value in the unrotated Schedule expression'. This will result in the first character of the period being displayed. Therefore, this expression will not work for a school that has more than 9 periods.

To display both characters of the period, the expression would have to be modified: {PADR(unrotatedScheduleDisplay, **2**, "")} .

Note: This will display the (, for expressions with one period. E.g. 1( or 2( etc.

If the school would like to display ALL characters of the schedule expression, use the following expression:

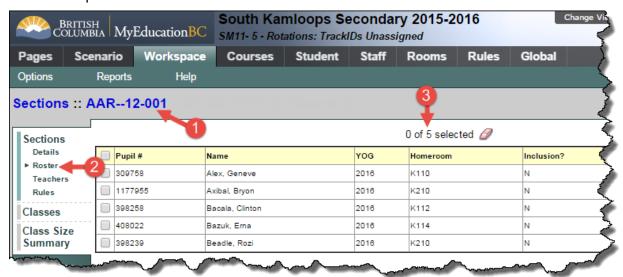
{unrotatedScheduleDisplay}

### 4.0 Recalculate Enrollment totals

You might need to recalculate enrollment totals so that they equal the number of students enrolled in a section.

You will notice this if a roster count, of a section, does not equal the **Total** value on the **Workspace**, for a section.

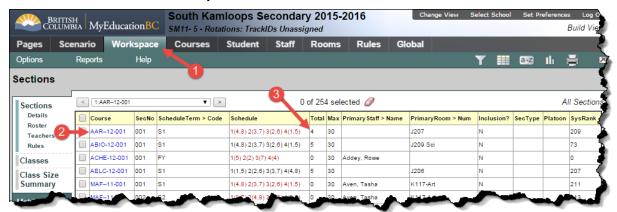
In the example below the **Roster** for a section shows **5** students:







### The **Total** value on the **Workspace** shows **4** students:

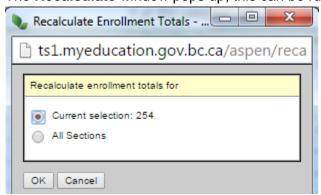


The numbers might be different if you or another build user manually changed the value in the 'Enrollment total' field for a section on the **Workspace** tab.

### 4.1 How to Recalculate Enrollment Totals

In the Build view:

- 1. Click the Workspace tab.
- 2. Select Options > Recalculate Enrollment Totals...
- 3. The **Recalculate** window pops up, this can be run for *Current Selection* or *All Sections*



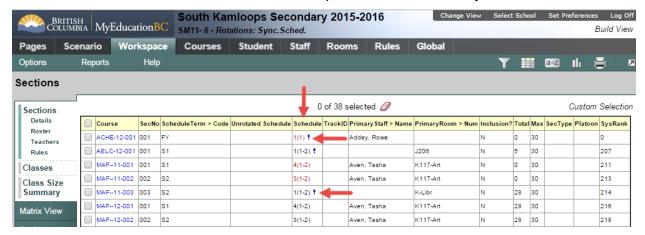
4. Click OK.



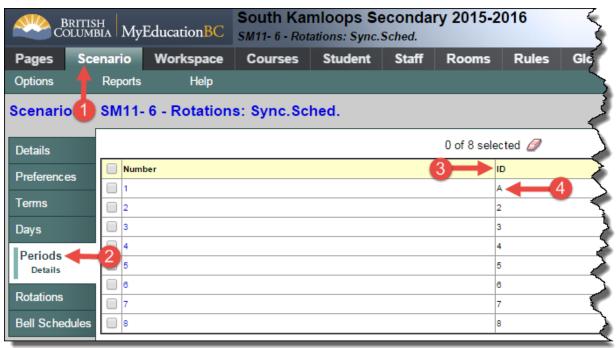


# 5.0 Synchronize Schedule

If you notice that the schedule expression tied to a course does not match the detail of the schedule expression, you need to synchronize them. This will be indicated with a blue exclamation mark at the end of the **Schedule** expression, in the **Workspace**:



In the above example the reason for the discrepancy is the period **ID** has been changed to an alpha character in the **Scenario** > **Periods** > **Period 1 Details** > **ID**:







## 5.1 How to Synchronize Schedule

**Note:** Usually, you would not use this option without the help of Level 2 support services. The first time this is run, only 1 section should be selected, to ensure the desired outcome is achieved.

In the Build view:

- 1. Click the Workspace tab.
- 2. Select **Options** > **Synchronize Schedule...** The Synchronize Schedule dialog box appears.
- 3. Select if you want to synchronize your matrix to your expression or your expression to your matrix, depending on which is correct.

**Note:** In this example the **Matrix** had been changed after the schedule expression was created. Therefore the process needs to be run for **Matrix to expression**. This is the most common way this process is run.

4. Click OK. The system updates the incorrect matrices or expressions.

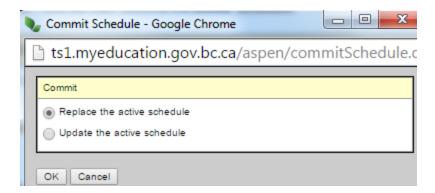
### 6.0 Commit Master Schedule

After the **End of Year Rollover (EYOR)** process is complete, one **Scenario** from the Build view must be **Committed** – this will then become the **Active Schedule**.

#### 6.1 Commit Schedule

In the Build view:

- 1. Click the **Scenario** tab.
- Select the Scenario that you would like to commit, to go into the Details.
- 3. Click **Options** > **Commit Schedule**..... The Commit Schedule dialog box appears:







4. Select the appropriate option, **Replace the active schedule** or **Update the active schedule** (if you have already committed the schedule, made changes and want to only re-commit the changes.

**Note:** This topic will be covered further, as part of **End of Year Rollover (EYOR)** and **School Start-up** Learning Events.