**Scheduler System** 

# **Instruction Manual**

## **Application Developers:**

Betty Wong, Cameron Askew, Jacob Rogers, John Lopez, John Stefanski, Luis Retana Megan Mahoney, Mike Nichols, Nick Nobles, Nick Sardo, Stanley Zhou

Project Manager:

Nick Sardo

## 1. Introduction

The Scheduler Class and Event Management System makes it easy for you to schedule and manage academic and nonacademic events, from simple, one-time meetings to those with complex, multi-occurrence time patterns. Scheduler includes the easy-to-use, web-based publishing system, which provides rich capabilities for posting events on campus web pages and portals.

## 2. Systems Requirements

Scheduling System requires a computer running Microsoft Windows. The machine must have the following software installed:

- IIS 5+
- ASP.net 4.0+
- MSSQL Server 2008

## 3. Installation Of System

1. Run Installation.sql in MSSQL Management Studio Express. This will create the Scheduler database in the server.

2. Copy and paste the Scheduler folder into your inetpub folder, located on the C drive of the

server.

- 3. Open up IIS and configure an ASP.net 4.0 website that points to the Scheduler folder.
- 4. Modify the web.config in the Scheduler folder: change the connection string to point to

the

database server.

## 4. Uninstallation

- 1. Right click the database in MSSQL and click "Delete".
- 2. Right click the Scheduler folder in inetpub and click "Delete"

## 5. Operations Guide

## 5.1 Divisions

The divisions are a main component of the Scheduler System. They consist of two separate parts, the name and the description. The first step is to create a division. Once a division has been created, the user can view, modify, or delete any of the existing divisions.

## 5.1.1 Creating a Division

The first step to create a division is to select the link (circled in red on the left in the picture below) labeled "Create Division".



The next step is to supply a division name. Be sure the division name is not duplicated, as the Scheduler System will not accept duplicate entries. Though a description for the division is not necessary, it can be useful when using abbreviated division names. The last step is to create the division. Do this by selecting the "Create Division" button (circled in red at the bottom of the above picture). If in the process you would like to start over, simply hit the "Cancel" button and it will clear the fields. See picture below for an example.

Division Name: COM									
(note: the division name cannot be a duplicate of a pre-existing division)									
	computer science								
Division Description:	<b>v</b>								
	Create Division Cancel								

## 5.1.2 Viewing the Divisions

After creating a few divisions, it is helpful to view the divisions in order to make sure they are correctly spelled and to see if there are any changes that need to be made. View the divisions by selecting the link on the left hand of the page (circled in red in the picture below) labeled "View Divisions".



Just browse through the table to see all the divisions.

## 5.1.3 Modify a Division

To modify an existing division, select the link in the left hand column labeled "Modify Division," (circled in red in the picture below). After selecting this link, browse through the given drop down labeled "Select division to modify".

Create Division	Modiy Existing Division
View Divisions	Information: Below you will be able to select a pre-existing Divisions and modify either of the attributes. Note that once again a Division Description is not needed (although a Division Name still is required).
Modify Division Delete Division	Select Division to Modify: None Modify selected Division: Division Name: BIO SEXED (Note: Name PSYC
	Division Description:

Once you have chosen a division, simply (1) input a new name or description for the division and (2) select submit changes. See the picture below for an example.

Select Division to Modify: COMP	•
Modify selected Division:	
Division Name: CS (Note: Mame cannot be duplicated or none)	
Division Description:	*
Submit Changes	

Note that the division name still cannot be a duplicate, "none", or left empty.

## 5.1.4 Deleting a Division

In order to delete a division, simply select the "Delete Division" link on the left hand of the page (circled below in red). Then, select a division from the dropdown list to be deleted and hit the "Delete" button on the right hand of the page (circled below in red).



See the picture below as an example.

Select Equipment Classification to Delete: BIO	Delete

Successfully deleted division

## 5.1.5 After Divisions

After you've created all the divisions, just select any of the other links at the top of the page to create, view, or modify other components in the Scheduler System.

## 5.2 Equipment Classes

Equipment Classifications (Tiers) have multiple attributes including a Tier Name, Tier Description, and a Parent Tier. Operations available to you to perform on Equipment Classifications include Creating a new Tier, Viewing all Tiers, Updating an already existing Tier, and Deleting an already existing Tier. All of these operations can be performed by clicking on the appropriate link on the left side of the Equipment page.

## 5.2.1 Create Tier

As stated earlier, each Tier has a Name, Description (although Description can be left empty), and a Parent Tier. Tier Name and Tier Description can be set by typing the desired values into the appropriate boxes and Parent Tier can be set by selecting any item from the drop down list at the bottom. In order to successfully create a new Tier certain requirements must be met: Tier Name must be given a value and can't be left blank, Tier Name can't be any form of the word "None" (such as "none"), and Tier name can't be a duplicate of another existing Tier's name. Violation of these requirements will result in a error message being displayed at the bottom of the page when "Create Tier" is clicked. If all requirements are met, then the Tier will be created and a success message will appear at the bottom of the page (shown

#### underneath in the second picture with blue font).

Create Tier View Tiers	Create new Equipment Classification Tier Information: Below you will be able to create a new Equipment Classification. Each Equipment Classification has a Name, Description, and a Parent. A Tier Name must be supplied below (no forms of "None" allowed) while a Tier Description is not necessary. To have the Classification refer to no Classifications or to a specific Classification, select that appropiate Classification by its Name in the Drop Down List. After finished, click the "Create Tier" button. Note that the Tier Name you enter can't be a duplicate of a pre-existing Tier's name.
Update Tier	Tier Name: Desired Name goes here
Delete Tier	Tier Description:
	Parent Tier: Tier 52
	Create Tier Cancel

Successfully created new Equipment Classification Tier

#### 5.2.2 View Tiers

A table will list all of the existing Tiers alphabetically by Tier Name. Each row in the table corresponds to an existing Tier and displays its Name, Description, and Parents Name ("None" if Tier has no parent). The table on the View Tiers page should look like the table below with different Tiers in it.



#### Read existing Equipment Classification Tier

Information: Below you will be able to view information on existing Equipment Classifications made available in a table sorted by each Classifications Name. To read a Tier simply scroll down the page and find the Tier in the table.

s	Tier Name	Tier Description	Parent Name	
	Tier 5	Changed Tier 45 to Tier 5	None	
te	Tier 52	Parent will be Tier None	None	
	Tier 55	Parent will be Tier 56	None	
	Tier 61	Parent is none. Now parent is 60	None	
e	Tier 68	Original	Tier 5	
	Tier 69	Oh yeah	Tier 68	
	Tier 80	This will reference other 80	None	
	Tier 81	References Tier 80	None	
	Tier A	Original Ryxx Tier	None	
	Tier B	2nd Level Ryxx Tier	Tier A	
	Tier C	3rd Level Ryxx Tier	Tier B	
	Tier D	4th Level Ryxx Tier	Tier C	
	Tier72		None	

## 5.2.3 Update Tier

This page is very similar to the Create Tier page with the only major difference being that an existing Tier is selected from a drop down list and then has any of its fields (name, Description, and Parent) modified. To update a Tier you must first select a Tier to modify from the drop down list labeled "Select Tier to Modify". After this, the Tier Name, Tier Description, and Parent Tier fields in the "Modify selected Tier" section will present the select Tier's current attributes (example shown below).

Create Tier View Tiers	Update existing Equipment Classification Tier Information: Below you will be able to select a pre-existing Equipment Classification and modify either all or some of its attributes including Tier Name, Tier Description, and Parent Tier ("None" at top of list in not modifiable). Note that once again a Tier Description is not needed (although a Tier Name still is required), Tier Name can't be a duplicate of another pre-existing Tiers Name, Tier Name can't be "None", and the Tier being modified can not have its Parent be itself.						
Update Tier	Select Tier to Modify: Tier 52						
Delete Tier	Tier Name: Tier 52 This is Tier 52's original description Defore modification Parent Tier: None Submit Changes						

If you wish to change either the Tier Name or Tier Description then simply remove the text, if any, from the appropriate text boxes and type in your new values. To change the selected Tier's Parent, open the drop down list labeled "Parent Tier" and select an existing Tier to be the new Parent. To successfully update a Tier, you must meet the following requirements: the Tier that is being updated can't be updated to have its Parent be itself, Tier must be given a Tier Name, the new Tier Name can't be any form of the word "None", the new Tier Name can't be a duplicate of another existing Tier's Name, and the Tier that is being updated can't be the "None" item at the top of the drop down list. Failure to meet any of these requirements when the "Submit Changes" button is clicked will result in an error message at the bottom of the page and the desired changes to the selected Tier will not be performed. If the requirements are met when the "Submit Changes" button is clicked then all of the desired changes will be performed on the selected Tier and a success message will appear in place of an error message (shown below).

Successfully updated Tier

## 5.2.4 Delete Tier

To delete a Tier simply open the drop down list and select the Tier you wish to delete. After selecting the Tier you want to delete click on the "Delete" button next to the drop down list. Know that if the selected item from the drop down to delete was the item called "None" a error message will be presented at the bottom of the page. If you clicked "Delete" and the selected

item was not the "None" at the top of the list then you will have successfully deleted the Tier and received a success message on the bottom of the page (shown below). All of the existing Tiers that had the deleted Tier as their Parent will no longer have a Parent Tier.

	Create Tier View Tiers	<b>Delete existing Equipment Classification Tier</b> Information: In this page you will be able to select any pre-existing Equipment Classification and delete it. To delete a Classification, search for the Classification by name in the Drop Down List and click on it. After selecting the Classification click "Delete" to delete the Classification. Note that you can not delete the "None" at the top of the Drop Down List.
	Update Tier Delete Tier	Successfully deleted classification
1		

## 5.3 Locations

A location consists of many parts including a name, an equipment class, a facility, divisions, and the time blocks specifically assigned. A user should create the specific components aforementioned before they try to create a location so that a location will not have empty values. Upon clicking the Locations tab on the menu bar, the user will be presented with four different views for manipulating locations: Create, List, Update, and Delete. Simply left click on any of these views to switch and start working within them.

Create:



To create a new location first click the "Create Location" tab on the left. Then fill out the Create Name box, the Create Equipment Level drop-down, the Create Facility drop-down and select any divisions the room is a part of in the division checkbox list. To submit the new room click the create button.

List:



In the salmon-colored text box will be a list of all the facilities that have been created so far. To see a table with all of the locations that have been created with the selected facility, just click the Search button at the bottom.

Update:



To update a location, choose a facility from the drop-down and then from the Update Location drop-down select the location that you would like to edit and click Search. Once the bottom portion of the page populates you can change the name, equipment class, facility, and different divisions. To save the changes click "Update".

Delete:



To delete a location you first need to click on the Delete Location on the left of the page. After that choose the facility in which the location you want to delete is located. Next from the drop-down list Delete Location choose the location you want to delete and click "Delete". WARNING: Once a Location is deleted it cannot be recovered.

## 5.4 Events

## 5.4.1 Viewing Events by Division

To view events by division, click on the Events link in the navigation panel, then select the division of the events that you want to view. A screen like this should appear:

Even	ts Equip	nent Division	s Facilities	Locations	Scheduler	Reports	F		
DIVISION: ENGL									
	Unique ID	Name			Description			Priority	
	2058914	ENGL 202	Shakespearea	m Literature l	Ι			8	MODIFY DELETE
	4829501	ENGL 200	Shakespearea	Jhakespearean Literature					MODIFY DELETE
	2953824	ENGL 101	Introduction (	to Literature I	Ι			4	MODIFY DELETE
	5435691	ENGL 100	Introduction t	to Literature I	[			5	MODIFY DELETE

Figure 5.4.1

## 5.4.2 Creating Events

To input an event into the system, first select the division you want the event to appear under. Then, click the ADD button to get a screen like this:

Events	Equipment	Divisions	Facilities	Locations Schedu	ler Reports	Fallin	
j	Event De	tails					
Π.	Unique I	D					
н.	Nar	ne					
н.	Descripti	on					
н.	Location Priori	ity 1	•				
1	Times						
1	Day S	tart Time	End Time	Equipment			
S	Schedule a 1	Гime					
	Day: Sunday	-	Start Time:	Enc	I Time:		

Figure 5.4.2

From this page, enter the information about the event, then click the Submit button. To add a time to the event, choose the appropriate day, start time, end time, start date (the first day the event will occurs), and end date (the last date the event will occur), and select "Schedule Time".

Also choose the appropriate equipment tier for each scheduled time. A table of descriptions of each of the available tiers to choose is available at the bottom of the page.

## 5.4.3 Modifying Events

After an event is created, you may still modify it from the same page you use to view events. Choosing the Modify button from figure 5.4.1, you will get a page similar to the ADD page, but this time it will be pre-populated with information about the event you want to modify. Simply modify the fields you wish to change and click the Submit button.

## **5.4.4 Deleting Events**

If you choose to delete an event from the system, you may also do so from the same page you use to view events. Click the Delete button next to an event in order to delete it from the system.

5.5 Event Scheduler

5.5.1 Scheduling Events

Scheduler Run Scheduler	
Scheduler Run Scheduler	
Search By Division	
Search By Facility	

To schedule all events, first click the Scheduler link at the top of the page.

Even	ts Equipment	Divisions	Facilities	Locations	Scheduler	Reports 🧃
Scheduler	Class Sched	luler				
Search By Division						
Search By Facility						

Next, on the menu on the left, click Scheduler Runner

Z.	Even	ts Equipment	Divisions	Facilities	Locations	Scheduler	Reports 🐧
	Scheduler _Runner	Class Sched	luler				
	Search By Division						
	Search By Facility						

There will be a single button named "Run Scheduler". Click it once.

X	Ever	nts Equipment	Divisions	Facilities	Locations	Scheduler	Reports	
	Scheduler Runner Search By Division Search By Facility	Class Sched Run Scheduler *NOTE* Runnin Continue Can	l <b>uler</b> ng Scheduler cel	r will override	e all previously	v scheduled loo	cations and	events. Continue?

The page will warn you that running the scheduler will override all previously scheduled locations and events and ask you to confirm that you still want to run the scheduler. Click "Continue" to confirm or "Cancel" to cancel.

## 5.5.2 Modifying Results

After scheduling an event or even just creating an event, it can be modified using the "Scheduler" link on the task bar. An event can either be located by division under "Search by Division" or by facility under "Search by Facility". Search By Division

First, using the drop down list please select the division of the event of which you are locating. When selecting an event, the page will display all the events under the selected division.

Manua	l Lo	cation O	verrid	le	
Search H	By Divi	sion			
Please Selec	ct a divisi ed table r	on to search b ow indicates th	y MATH COMP	as not been scheduled during one or more of its time blocks.	
CRN	Name	Description	ENGL	Times	
22			SIC	19 10:00:00 AM - 11:30:00 AM/M 10:00:00 AM - 11:30:00 AM/F 10:00:00 AM - 11:30:00	
1350819u33	Math	Tier A		AM	MODIFY
1350819u3 287038111	Math MATH	Tier A Tier D		AM F 1:00:00 PM - 2:30:00 PM/W 1:00:00 PM - 2:30:00 PM/M 1:00:00 PM - 2:30:00 PM	MODIFY

## Search By Location

First, using the Facility drop down list, select a facility. After a facility is selected, a second drop down list will contain all the locations within the facility.

## **Manual Location Override**

Search by Location



CRN	Name	Description	Locations	Times	
01258700	COMP	Tier B	W - Maher Hall 123	W 2:30:00 PM - 3:30:00 PM/M 2:30:00 PM - 3:30:00 PM/F 2:30:00 PM - 3:30:00 PM	MODIFY

After the facility is selected, choose a location from the Location drop down list.

# **Manual Location Override**

## Search by Location



\*NOTE\* Red table row in the state a class has not been scheduled during one or more of its time blocks.

CRN	Name	Description	Locations	Times	
10259812	COMP	Tier B	W - Maher Hall 123/ F - Olin Hall 110/	W 1:00:00 PM - 2:00:00 PM/F 1:00:00 PM - 2:00:00	MODIEY
10239012	COM	IICI D	M - Olin Hall 110	PM/M 1:00:00 PM - 2:00:00 PM	

After searching by division or searching by location, a table of events in the division or location will appear.

\*NOTE\* Red table row indicates that a class has not been scheduled during one or more of its time blocks.

CRN	Name	Description	Locations	Times	
1023750	COMP	Tier B	Su - Maher Hall 123	Su 10:35:00 PM - 10:35:00 PM	MODIFY
01258700	COMP	Tier B	W - Maher Hall 123	W 2:30:00 PM - 3:30:00 PM/M 2:30:00 PM - 3:30:00 PM/F 2:30:00 PM - 3:30:00 PM	MODIFY
10259812	COMP	Tier B	W - Maher Hall 123/ F - Olin Hall 110/ M - Olin Hall 110	W 1:00:00 PM - 2:00:00 PM/F 1:00:00 PM - 2:00:00 PM/M 1:00:00 PM - 2:00:00 PM	MODIFY
109275012	COMP	Tier A		M 2:00:00 PM - 3:30:00 PM/F 2:00:00 PM - 3:30:00 PM/W 2:00:00 PM - 3:30:00 PM	MODIFY

The events highlighted red represent events that have not been scheduled to have a location. An event that is missing a location for one of it's time blocks will also be highlighted red. These events can be changed using the "Modify" button.

CRN	Name	Description	Locations	Times	
1350819u35	Math	Tier A		W 10:00:00 AM - 11:30:00 AM/M 10:00:00 AM - 11:30:00 AM/F 10:00:00 AM - 11:30:00 AM	MODIFY

When the modify button is selected, the page will include information about the event that corresponds with that modify button. The division name is displayed along with the event name. For example, "Math" is the name of the event currently being looked at. "MATH" is the division that was selected, therefore the display name after selected "modify" will be "MATH Math". Then the description of the event is shown below the display name. In this case, the description associated with the event "Math" is "Tier A".

Event Name: MATH Math Event Description: Tier A

\*NOTE\* Red inidicates an unscheduled time block.

Time	Facility	Location		
W 10:00:00 - 11:30:00			Edit Location	Delete Location
M 10 00:00 - 11:30:00			Edit Location	Delete Location
F 10:00:00 - 11:30:00			Edit Location	Delete Location

Now we can selected on the time blocks on an event to either edit the location or delete it. When editing a location, a location can be assigned to the event's time block.

Current Location: None

Olin Hall	✓ 110 ✓ Change to New Locatio
$\smile$	110
	100

When an event is selected. Another message appears stating whether or not another event is already located at that room. If another event is located there, then a message will appear stating that the event conflicts with another event. However, whether if there is a conflict or not, the page will prompt you if you want to continue with the change. If this change were to occur, the page will reload and display the table with the new information. If the location was changed despite a conflict, then the event that had the same location will no longer have a location.



Once a change has been submitted. The page will reload to display the table with the event

#### and the new location of the event.

Please Select a division to search by: MATH

\*NOTE\* Red table row indicates that a class has not been scheduled during one or more of its time blocks.

CRN	Name	Description	Locations	Times	-
1350819u35	Math	Tier A	W - Maher Hall 123	W 10:00:00 AM - 11:30:00 AM/M 10:00:00 AM - 11:30:00 AM/F 10:00:00 AM - 11:30:00 AM	MODIFY
a87038111	MATH	Tier D		F 1:00:00 PM - 2:30:00 PM/W 1:00:00 PM - 2:30:00 PM/M 1:00:00 PM - 2:30:00 PM	MODIFY
p93u8109	MATH	Tier D		M 2 00:00 PM - 3 30:00 PM/F 2:00:00 PM - 3 30:00 PM/W 2:00:00 PM - 3 30:00 PM	MODIFY

To delete a location from an event. Select "modify" again. Then select "delete location".

\*NOTE\* Red inidicates an unscheduled time block.

Time	Facility	Location		
W 10:00:00 - 11:30:00	MH	123	Edit Location	Delete Location
M 10:00:00 - 11:30:00			Edit Location	Delete Location
F 10:00:00 - 11:30:00			Edit Location	Delete Location

After selecting "delete location". You will be prompted if you are sure whether or not to delete the location. To continue, press "submit change" and the location will be removed.

```
Submit Location Change? *Note* The event will no longer be scheduled.
```

Once the event location is removed, the location section of that event in the display table will be updated to reflect the removal of the location.

Please Select a division to search by: MATH

\*NOTE\* Red table row indicates that a class has not been scheduled during one or more of its time blocks.

CRN	Name	Description	Locations	Times	· · · · · ·
1350819u35	Math	Tier A		10:00:00 AM - 11:30:00 AM/M 10:00:00 AM - 11:30:00 AM/F 10:00:00 AM - 11:30:00 AV	MODIFY
a87038111	MATH	Tier D		F 1:00:00 PM - 2:30:00 PM/W 1:00:00 PM - 2:30:00 PM/M 1:00:00 PM - 2:30:00 PM	MODIFY
p93u8109	MATH	Tier D		M 2.00:00 PM - 3.30:00 PM/F 2.00:00 PM - 3.30:00 PM/W 2:00:00 PM - 3:30:00 PM	MODIFY

Location successfully removed from time block.

You can also clear all of the events' locations by simply clicking the "Clear All Locations"

button below the "Run Scheduler" button on the "Scheduler Runner" page. **5.6 Reports** 



The reports page allows you to have a variety of option in which you can view how the events were assigned to locations. There is the option to look at a specific location and see all the events that are mapped to it, the option to see all the events and their room assignment, and the option to see all the events within a division. To choose between these options, you should see the side panel of the page and click on the appropriate link.

Events in a Location:

To view the events in a specific location, you should use the first drop down to select a facility.

Please choose a facility:	•
Please choose a room: Get Weekly View	Olin Hall Maher Hall
	Serra Hall Donald P. Shiley Center for Science and Technology

Next, the user should use the bottom drop down to select a room.

Please choose a f	acility: Olin Hall	•
Please choose a r	oom: 110	<b>•</b>
Get Weekly View	110	
	100	

Finally, after both the facility and the room are chosen, click on the "Get Weekly View" button and a table will show up with all of the events.

All Events:

If you wish to view all the events, click on the respective link and they will appear on that page.

Events by Division:

To view the events in the division, click on the respective link. Next, choose the division you would like to view through the drop down.

•	Go
СОМР	
MATH	
BIO	
SEXED	
ENGL	
PSYC	
	COMP MATH BIO SEXED ENGL PSYC

After a division is chosen, click the "Go" button. The events within that division will then shop up in a table.

END