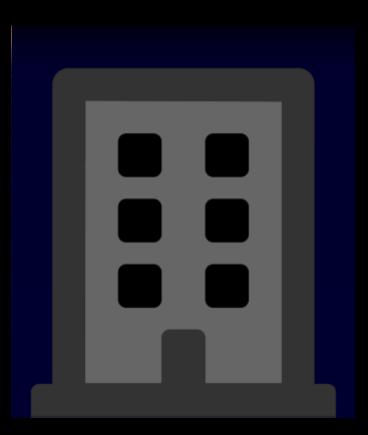
# Approaches to Managing Energy during Facility Shutdowns: Using a Master Schedule



patrick richardson, BSEE, PEM Energy Analyst Physical Plant Appalachian State University

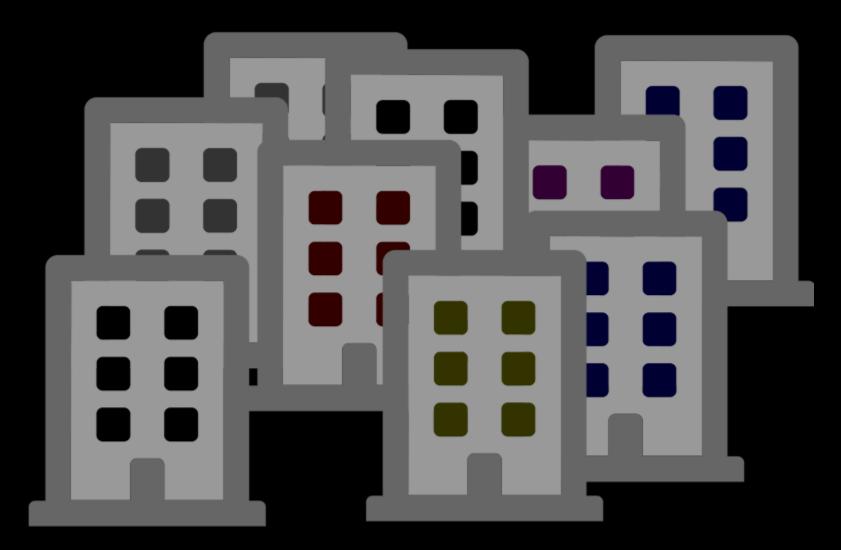


#### Schedules





#### Schedules





### Use a Master Calendar

• A master calendar can control multiple buildings

 You can also use a schedule to control schedules to switch between semester or summer and fall/spring building schedules



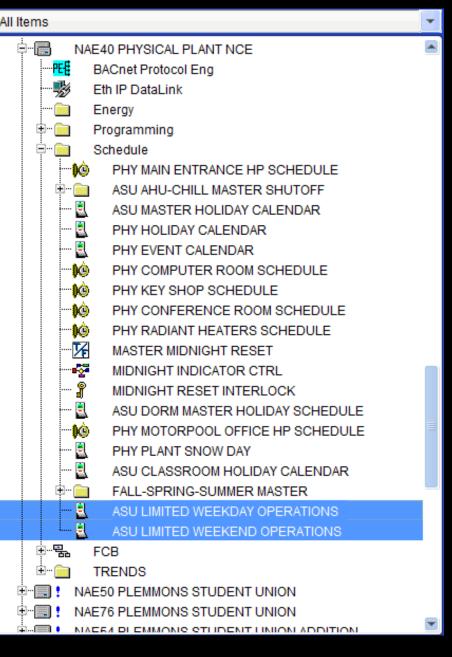
A master calendar can control multiple buildings

ASU LIMITED WEEKDAY OPERATIONS																					
									Т	rue	Norm	nal									
Cale	endar	Fo	cus																		
Edit Entry Detail << < * > >>																					
Sun	C// Mon Z	Tue 3	Wed	Thu	2020 Fri	<b>5</b> 31	A/ Sun	nril Mon	Tue	Wed	Thu	2020 Fit	Sal	Ma Sun	y Non	Tue	Wed	Thu		Sal Z	
1	9	-3 10	• 11	9 12	13	14	5	6	7	1	- 9	10	۰ 11	3		5	6	7	1	9	4
15	- 16	17	18	19	20	21	12	13	14	15	16	17	18	10	11	12	13	14	15	- 16	-
ZZ	23	24	<b>(3)</b>	26	27	28	19	20	21	Z2	23	24	25	17	18	19	20	21	ZZ	Z3	-
29	30	31	$\sim$				26	27	28	29	30			Z+	25	26	27	28	29	30	
														31							
June 2020 July 2020							August 2020														
Sun	Mon 1	Tue Z	Wed 3	Thu +	Fri S	<u>5</u> 81	Sun	Non	Tue	1	Z	hi E	5ai 4	Sun	1 Non	Tue	Wed	Thu	hi	Sal 1	
7	8	9	10	11	12	13	5	6	7	8	9	10	11	z	з	۰	5	6	7	8	1
	15	16	17	18	19		12	13	14	15	16	17	18	9	10	11	12	13	14	15	
ASU LIMITED WEEKEND OPERATIONS																					
False Normal																					
Calendar Focus																					
Edit Entry Detail << < * > >>																					
Mar Sun j	rch Mon	Tue	Wed	Thu	2020   Fil	Sal -	A A Bun	il Mon	Tue	Wed	Thu	2020 Fit	Sal	Ma Sun		Tue	Wed	Thu	2020 Fit	Sal	-
1	z	З	٠	5	6	7				1	z	З	•						1	z	
8	e	10	11	12	13	14	5	6	7	8	9	10	-11	З	٠	5	6	7	8	9	
15	16	17	18	19	20	21	12	13	14	15	16	17	18	10	11	12	13	14	15	16	
z	73	Z4	ෂ	26	Z7	28	19	20	21	ZZ - T	2	Z4	25	17	18	19	20	Z1	<b>Z</b>	23	
29	30	31					26	Z7	22	29	30			24	25	26	Z7	28	29	30	
Jun Sun	Mon	Tue	Wed	Thu	2020 Fi	् हत्वा	Ju Sun		Tue	Wed	Thu	2020 Fit	581	Au Sun	gust Non	Tue	Wed	Thu	2020 Fit	i sai	
_	1	z	3	•	5	6			<u> </u>	1	z	E 4	•	_	_				<u> </u>	1	
7	8 15	9 16	10 17	11 18	1Z 19	13 20	5 12	6	7	8 15	9 16	10	11 18	2 9	3	•	5 12	6 13	7	8 15	
	19				1 19	- <sup>-</sup>	12	1.1	1 "	1 19	19	1	18	19	1 10	<b>1</b> <sup>11</sup>	12		1 "*	1.15	
																				- I	Þ



## Why Master Calendars?

- Reside in a standard location
- We keep the Master Holiday, Shutdown, and Classroom Calendars
- Affects all buildings with one click





## Example of Modifying Schedule

- Normal Schedule
- Add Exception Calendar to Schedule
- Makes alternate Schedule whenever Calendar is Enabled



_		A 7		
splay Mode	oday's Schedule	-		
Vednesday				
00:00	06:00	12:00	18:00	23:59
Unoco	upied 🕨	Occupied		Unoccupied
Time	Value			
00:00	Unoccupi	ed		
06:32	Occupied			
18:13	Unoccupi	ed		
*Wednesday	*	Oc	cupied	
Thursday		Oc	cupied	
Friday		Occupi	ed	Unoccu
Saturday	Unoccupi	ied	Occupied	Unoccupied
Sunday	Unoccupi	ied	Occupie	ed