



BELL SCHEDULE CONFIGURATION

SCHOOL CAMPUS BELL SCHEDULE

School campuses that use a Bell system to signify the beginning of a passing period sometimes require specific doors to unlock to allow the passage of students between buildings and areas. DSX offers a streamlined method to synchronize the Bell system with DSX while maintaining Emergency Lockdown capabilities.

CONFIGURATION OF NORMAL BELL SCHEDULE

1. Time Zones are created for each time the system should unlock the doors.

- Time Zones are named to assist in recognition as First Period, Second Period, etc.
- One Time Zone is created for each Passing Period (unlocking of the door).
- The Time Zone is defined so the Start Time is when the bells ring and the doors unlock and the Stop Time is when the Doors Relock.
- There is no limit to the number of Time Zones that can be defined.
- See *Figure 1* shows 10 Time Zones with schedules and 2 that are labeled Spare without schedules. These Spare Time Zones can be defined later without changing the rest of the system. Any of the 12 Time Zones can be renamed and redefined at any time.

Select Location	3: High School							TimeZone Data	28	Operator: Master			6/12/2018	9:44 PM
NAME	SUN	MON	TUE	WED	THU	FRI	SAT	HOL1	HOL2	HOL3				
1. Start of School Bell	0 - 0	745 - 800	745 - 800	745 - 800	745 - 800	745 - 800	0 - 0	0 - 0	0 - 0	0 - 0				
2. 0 Hour Bell	0 - 0	850 - 900	850 - 900	850 - 900	850 - 900	850 - 900	0 - 0	0 - 0	0 - 0	0 - 0				
3. First Period Bell	0 - 0	950 - 956	950 - 956	950 - 956	950 - 956	950 - 956	0 - 0	0 - 0	0 - 0	0 - 0				
4. Second Period Bell	0 - 0	1050 - 1056	1050 - 1056	1050 - 1056	1050 - 1056	1050 - 1056	0 - 0	0 - 0	0 - 0	0 - 0				
5. Third Period Bell	0 - 0	1146 - 1152	1146 - 1152	1146 - 1152	1146 - 1152	1146 - 1152	0 - 0	0 - 0	0 - 0	0 - 0				
6. Fourth Period Bell	0 - 0	1236 - 1242	1236 - 1242	1236 - 1242	1236 - 1242	1236 - 1242	0 - 0	0 - 0	0 - 0	0 - 0				
7. Fifth Period Bell	0 - 0	1327 - 1333	1327 - 1333	1327 - 1333	1327 - 1333	1327 - 1333	0 - 0	0 - 0	0 - 0	0 - 0				
8. Sixth Period Bell	0 - 0	1423 - 1429	1423 - 1429	1423 - 1429	1423 - 1429	1423 - 1429	0 - 0	0 - 0	0 - 0	0 - 0				
9. Seventh Period Bell	0 - 0	1519 - 1525	1519 - 1525	1519 - 1525	1519 - 1525	1519 - 1525	0 - 0	0 - 0	0 - 0	0 - 0				
A. End of School Bell Schedule	0 - 0	1615 - 1630	1615 - 1630	1615 - 1630	1615 - 1630	1615 - 1630	0 - 0	0 - 0	0 - 0	0 - 0				
B. Spare Bell Schedule 1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0				
C. Spare Bell Schedule 2	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0				
D. Passing Doors 24/7	0 - 2400	0 - 2400	0 - 2400	0 - 2400	0 - 2400	0 - 2400	0 - 2400	0 - 2400	0 - 2400	0 - 2400				
E. Always/Bells don't change	0 - 2400	0 - 2400	0 - 2400	0 - 2400	0 - 2400	0 - 2400	0 - 2400	0 - 2400	0 - 2400	0 - 2400				
F. 24/7 Door Lock Schedule	0 - 2400	0 - 2400	0 - 2400	0 - 2400	0 - 2400	0 - 2400	0 - 2400	0 - 2400	0 - 2400	0 - 2400				

Figure 1

2. Add a "Passing Doors 24/7" Time Zone that is only assigned to the Passing Doors (doors that unlock between classes). This Time Zone is always active (0-2400) and configured to be OFF when Linked To.

3. Add a "Always/Bells don't change" Time Zone for linking control. This Time Zone is always active (0-2400).

4. Add a "24/7 Door Lock Schedule" Time Zone for the Non-Passing Doors (doors that stay locked during the passing periods).

5. Create a Linking Group named "Passing Doors TZ". On the Components Tab select the Passing Doors Time Zone and assign it the "Always/Bell don't change" conditional Time Zone and a Response of Follow. Figure 2 & 3 below.

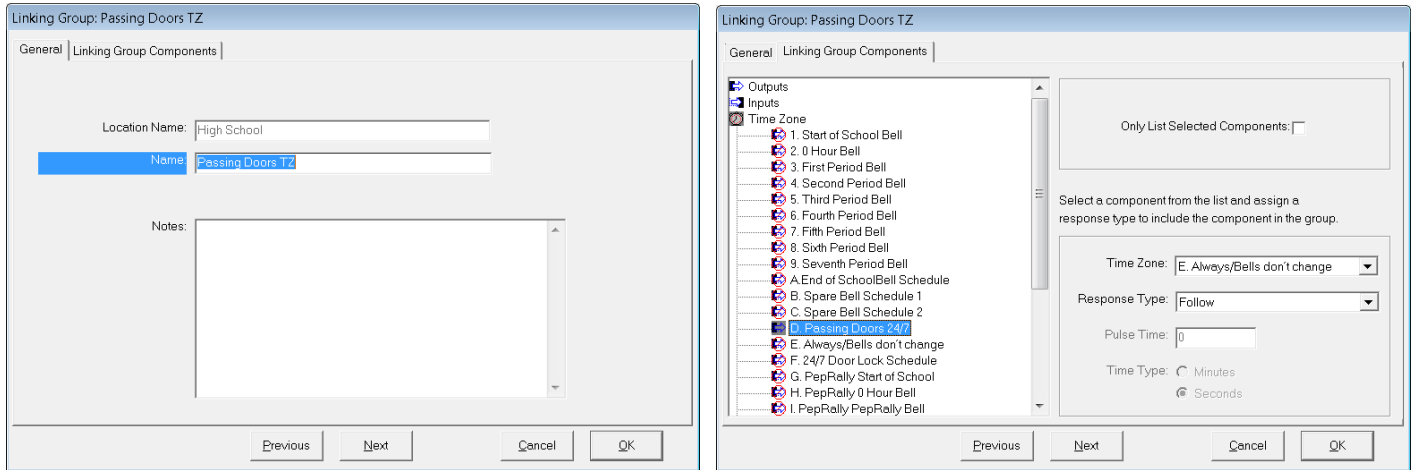


Figure 2 & 3

6. Create Virtual Outputs for the Bell Schedule Time Zones. One output will hold 4 time zones. Add as many virtual outputs as needed to hold all of the time zones required. Name these outputs Morning Bells, Mid Day Bells and Afternoon Bells or what represents the 4 time zones assigned to it. Virtual Output addresses can be 0:3 - 0:8 and 1:3 - 1:8. Additional Device Addresses can be used if necessary. Figure 4 - 9 below.

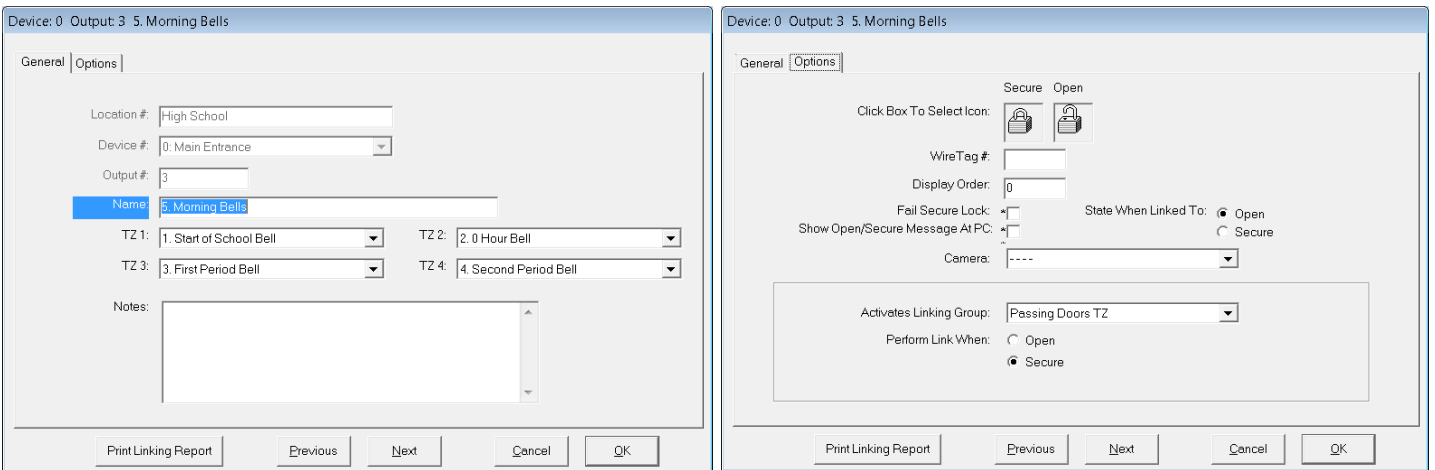


Figure 4 & 5

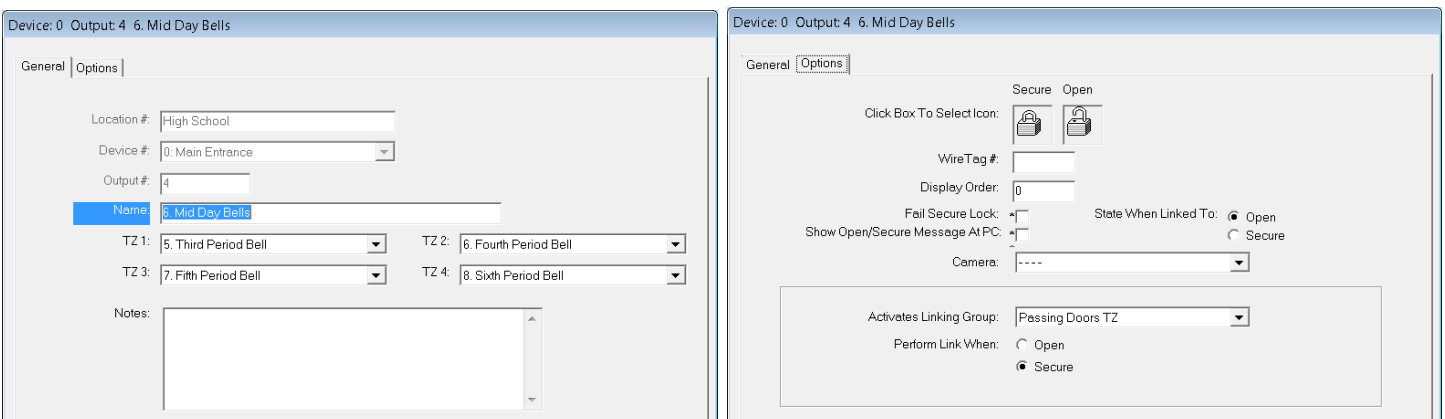


Figure 6 & 7

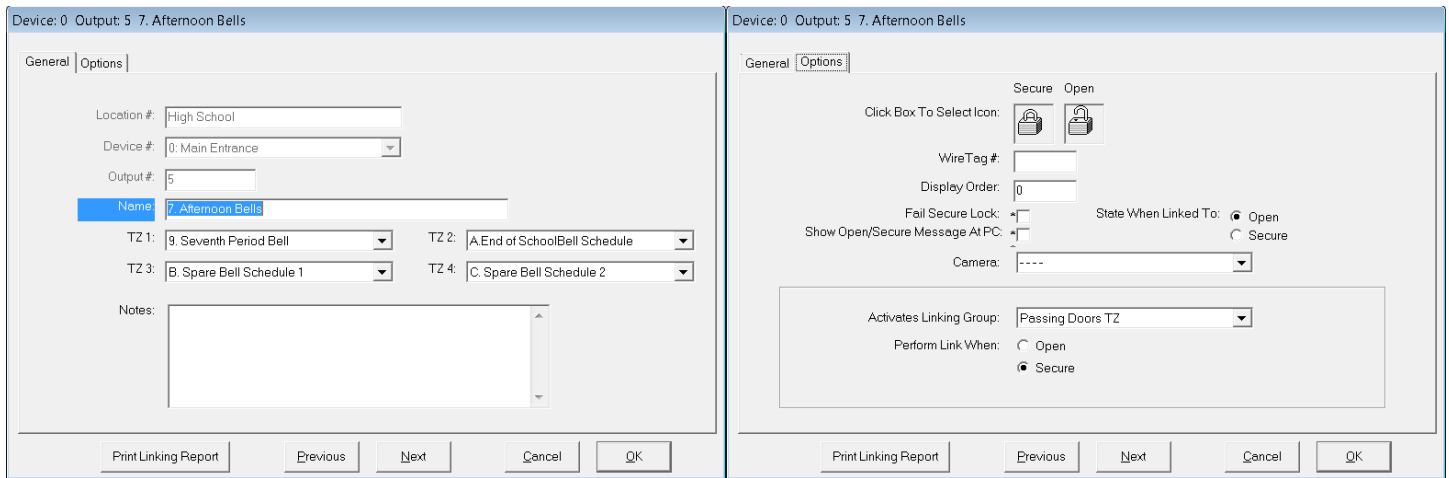


Figure 8 & 9

Notice in Figure 4-9, how all Virtual Outputs are Activating the same Linking Group when Secure. They all activate the Passing Doors TZ when Secure.

This Virtual Output has 2 Spare Time Zones assigned. These can be defined and renamed at a later time. These three Virtual Outputs will operate 12 Time Zone Schedules. More Time Zones and Virtual Outputs can be added.

7. Add another Virtual Output and name it Custom Bell Schedule. Assign no Time Zones to this output. On the Options Tab assign the Passing Doors Linking Group and set it to Perform link when Secure just like the other Virtual Outputs.

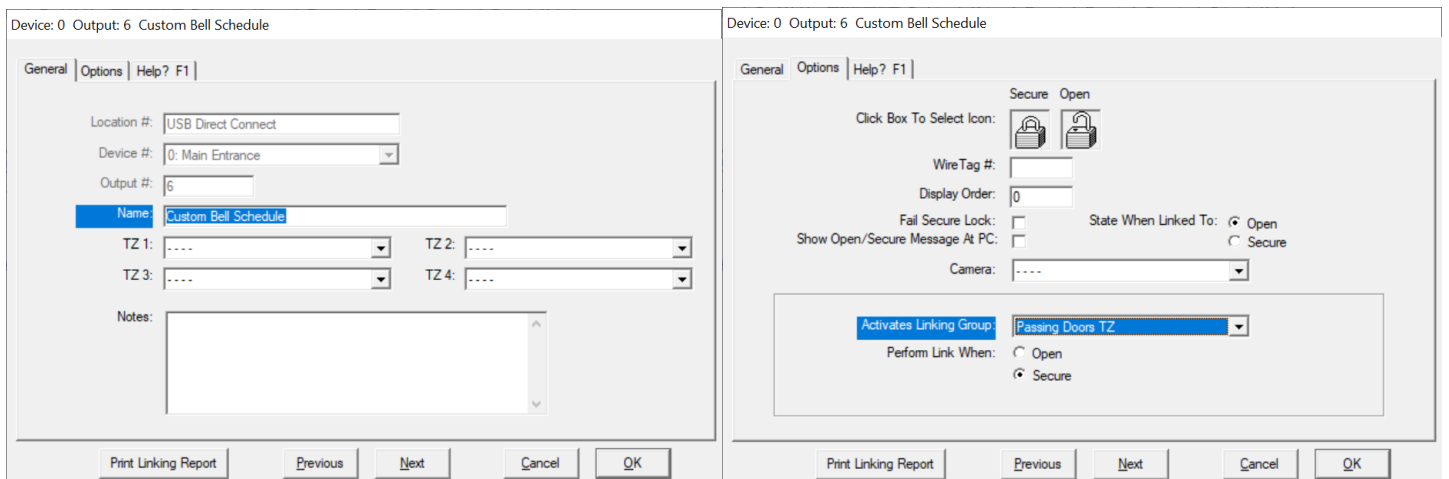


Figure 10

8. Figure 11 below shows a summary look of the Virtual Outputs defined and the Time Zones and Linking Group assigned to them for the Normal Bell Schedule. Doors that need to unlock for the Bell Schedule are assigned the Passing Doors Time Zone. When this Time Zone is Linked Off these doors unlock for the Pass Period. Notice in the example that the Main Entrance and East Entrance have the regular 24/7 Door Lock Schedule Time Zone. The West and South Entrances have the Passing Doors 24/7 Time Zone. The Morning, Mid Day and Afternoon Bell's Virtual Outputs have 4 time zones assigned each and all have the Passing Doors Linking Group assigned to them. The Custom Bell Schedule Virtual Output has no Time Zones but does have the Passing Doors Linking Group assignment.

The screenshot shows the 'Hardware' tab in the 'DataBase 3: High School' application. The interface includes a menu bar (Exit, Locations, Card Holder, Hardware, Badging, History, Reports 1, Reports 2, Operator, Setup, Help) and a toolbar with icons for Time Zone, Device, Output, Input, Linking Group, Linking Level, and Camera. Below the toolbar is a status bar showing 'Select Location: 3: High School', 'Output Data: 11', 'Operator: Master', '6/13/2018', and '9:09 AM'. The main area contains a table with the following data:

NAME	DEVICE	OUTPUT	F...	LI...	TZ 1	TZ 2	TZ 3	TZ 4	LINKING GROUP
1. Main Entrance	0	1	F...	O	F. 24/7 Door Lock Schedule				
2. East Entrance	1	1	F...	O	F. 24/7 Door Lock Schedule				
3. West Entrance	2	1	F...	O	D. Passing Doors 24/7				
4. South Door to Portables	3	1	F...	O	D. Passing Doors 24/7				
5. Morning Bells	0	3	F...	O	1. Start of School Bell	2. 0 Hour Bell	3. First Period Bell	4. Second Period Bell	Passing Doors TZ
6. Mid Day Bells	0	4	F...	O	5. Third Period Bell	6. Fourth Period Bell	7. Fifth Period Bell	8. Sixth Period Bell	Passing Doors TZ
7. Afternoon Bells	0	5	F...	O	9. Seventh Period Bell	A. End of School Bell Schedule	B. Spare Bell Schedule 1	C. Spare Bell Schedule 2	Passing Doors TZ
8. Custom Bell Schedule	0	6	F...	O					Passing Doors TZ

Figure 11

CONFIGURE ALTERNATE OR PEP RALLY BELL SCHEDULE

9. Follow the above steps again to create Time Zones for the Pep Rally or Alternate Bell Schedule. This will require creating new Time Zones for appropriate Passing Periods of the Pep Rally Day or some other standard alternate schedule.
10. Create new Virtual Outputs and assign them 4 Time Zones each of the new Pep Rally schedules. Use the linking group

The screenshot shows the 'Hardware' menu selected in the software. Below the menu is a toolbar with icons for Time Zone, Device, Output, Input, Linking Group, Linking Level, and Camera. The main window displays a table titled 'TimeZone Data 28' for location '3: High School' and operator 'Master' on '6/13/2018' at '9:25 AM'. The table lists various bell schedules (G through R) with their respective times for each day of the week (SUN through HOL3).

NAME	SUN	MON	TUE	WED	THU	FRI	SAT	HOL1	HOL2	HOL3
G. PepRally Start of School	0 - 0	745 - 800	745 - 800	745 - 800	745 - 800	745 - 800	0 - 0	0 - 0	0 - 0	0 - 0
H. PepRally 0 Hour Bell	0 - 0	850 - 900	850 - 900	850 - 900	850 - 900	850 - 900	0 - 0	0 - 0	0 - 0	0 - 0
I. PepRally PepRally Bell	0 - 0	935 - 941	935 - 941	935 - 941	935 - 941	935 - 941	0 - 0	0 - 0	0 - 0	0 - 0
J. PepRally First Period Bell	0 - 0	1025 - 1031	1025 - 1031	1025 - 1031	1025 - 1031	1025 - 1031	0 - 0	0 - 0	0 - 0	0 - 0
K. PepRally Second Period Bell	0 - 0	1115 - 1121	1115 - 1121	1115 - 1121	1115 - 1121	1115 - 1121	0 - 0	0 - 0	0 - 0	0 - 0
L. Pep Rally Third Period Bell	0 - 0	1205 - 1211	1205 - 1211	1205 - 1211	1205 - 1211	1205 - 1211	0 - 0	0 - 0	0 - 0	0 - 0
M. PepRally Fourth Period Bell	0 - 0	1255 - 1301	1255 - 1301	1255 - 1301	1255 - 1301	1255 - 1301	0 - 0	0 - 0	0 - 0	0 - 0
N. PepRally Fifth Period Bell	0 - 0	1345 - 1351	1345 - 1351	1345 - 1351	1345 - 1351	1345 - 1351	0 - 0	0 - 0	0 - 0	0 - 0
O. PepRally Sixth Period Bell	0 - 0	1435 - 1441	1435 - 1441	1435 - 1441	1435 - 1441	1435 - 1441	0 - 0	0 - 0	0 - 0	0 - 0
P. PepRally Seventh Period Bell	0 - 0	1525 - 1531	1525 - 1531	1525 - 1531	1525 - 1531	1525 - 1531	0 - 0	0 - 0	0 - 0	0 - 0
Q. PepRally End of School Bell	0 - 0	1615 - 1630	1615 - 1630	1615 - 1630	1615 - 1630	1615 - 1630	0 - 0	0 - 0	0 - 0	0 - 0
R. PepRally Spare Schedule 1	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0

Figure 12 Notice that each Time Zone repeats the same thing for each day of the week except weekends and holidays.

Passing Doors TZ previously created and assign it to the new Virtual Outputs. Repeat this as many times as necessary to define all Bell Schedules in advance.

The screenshot shows the 'Hardware' menu selected in the software. Below the menu is a toolbar with icons for Time Zone, Device, Output, Input, Linking Group, Linking Level, and Camera. The main window displays a table titled 'Output Data 11' for location '3: High School' and operator 'Master' on '6/13/2018' at '9:34 AM'. The table lists various bell schedules (8 through R) with their respective device, output, and linking group information.

NAME	DEVICE	OUTPUT	F...	LI...	TZ 1	TZ 2	TZ 3	TZ 4	LINKING GROUP
8. Custom Bell Schedule	0	6	F...	O					Passing Doors TZ
9. PepRally Morning Bells	1	5	F...	O	G. PepRally Start of School	H. PepRally 0 Hour Bell	I. PepRally PepRally Bell	J. PepRally First Period Bell	Passing Doors TZ
A. PepRally Mid Day Bells	1	6	F...	O	K. PepRally Second Period ...	L. Pep Rally Third Period Bell	M. PepRally Fourth Peri...	N. PepRally Fifth Period Bell	Passing Doors TZ
B. PepRally Afternoon Bells	1	7	F...	O	O. PepRally Sixth Period Bell	P. PepRally Seventh Period ...	Q. PepRally End of Sch...	R. PepRally Spare Schedu...	Passing Doors TZ

Figure 13

11. Figure 13-14 is a Summary look at all Outputs and the Time Zones and Linking Group assigned to them.

Select Location		3: High School				Output Data 11				Operator: Master		6/13/2018 9:38 AM	
NAME	DEVICE	OUTPUT	F...	LI...	TZ 1	TZ 2	TZ 3	TZ 4	LINKING GROUP				
1. Main Entrance	0	1	F...	O	F. 24/7 Door Lock Schedule								
2. East Entrance	1	1	F...	O	F. 24/7 Door Lock Schedule								
3. West Entrance	2	1	F...	O	D. Passing Doors 24/7								
4. South Door to Portables	3	1	F...	O	D. Passing Doors 24/7								
5. Morning Bells	0	3	F...	O	1. Start of School Bell	2. 0 Hour Bell	3. First Period Bell	4. Second Period Bell	5. Morning Bells	6. Passing Doors TZ			
6. Mid Day Bells	0	4	F...	O	5. Third Period Bell	6. Fourth Period Bell	7. Fifth Period Bell	8. Sixth Period Bell	9. Mid Day Bells	10. Passing Doors TZ			
7. Afternoon Bells	0	5	F...	O	9. Seventh Period Bell	A. End of School Bell Schedule	B. Spare Bell Schedule 1	C. Spare Bell Schedule 2	11. Afternoon Bells	12. Passing Doors TZ			
8. Custom Bell Schedule	0	6	F...	O					13. Custom Bell Schedule	14. Passing Doors TZ			
9. PepRally Morning Bells	1	5	F...	O	G. PepRally Start of School	H. PepRally 0 Hour Bell	I. PepRally PepRally Bell	J. PepRally First Period Bell	15. PepRally Morning Bells	16. Passing Doors TZ			
A. PepRally Mid Day Bells	1	6	F...	O	K. PepRally Second Period Bell	L. PepRally Third Period Bell	M. PepRally Fourth Period Bell	N. PepRally Fifth Period Bell	17. A. PepRally Mid Day Bells	18. Passing Doors TZ			
B. PepRally Afternoon Bells	1	7	F...	O	O. PepRally Sixth Period Bell	P. PepRally Seventh Period Bell	Q. PepRally End of School Bell	R. PepRally Spare Bell Schedule	19. B. PepRally Afternoon Bells	20. Passing Doors TZ			

Figure 14

CONFIGURATION OF OVERRIDE GROUPS

12. Next, create Override Groups for the control of these Virtual Outputs and Time Zone schedules.

Create the First Schedule Override and name it appropriately for the normal schedule. Assign it a 1 for the Display Order. Select the Normal Schedule Virtual Outputs of Morning Bells, Mid-Day Bells, and Afternoon Bells.

Override Group Daily Bell Schedule

General | Override Group I/O Points

Location Group: High School

Name: Daily Bell Schedule

Display Order: 1

Group Contains: Inputs Outputs

Click Box To Select Icons: Secure Open

Notes:

Previous Next Cancel OK

Override Group Daily Bell Schedule

General | Override Group I/O Points

Outputs

- 3:High School
 - 3:0.1 1. Main Entrance
 - 3:0.3 5. Morning Bells
 - 3:0.4 6. Mid Day Bells
 - 3:0.5 7. Afternoon Bells
 - 3:0.6 8. Custom Bell Schedule
 - 3:1.1 2. East Entrance
 - 3:1.5 9. PepRally Morning Bells
 - 3:1.6 A. PepRally Mid Day Bells
 - 3:1.7 B. PepRally Afternoon Bells
 - 3:2.1 3. West Entrance
 - 3:3.1 4. South Door to Portables

Only List Selected I/O Points: []

Double Click Right Button To Include / Exclude IO Point

Previous Next Cancel OK

Figure 15 & 16

13, Create the Second Override Group for the Pep Rally or Alternate Bell Schedule. There could be numerous schedules and override groups for each one. Set the Display Order to 2. Select the Pep Rally virtual outputs.

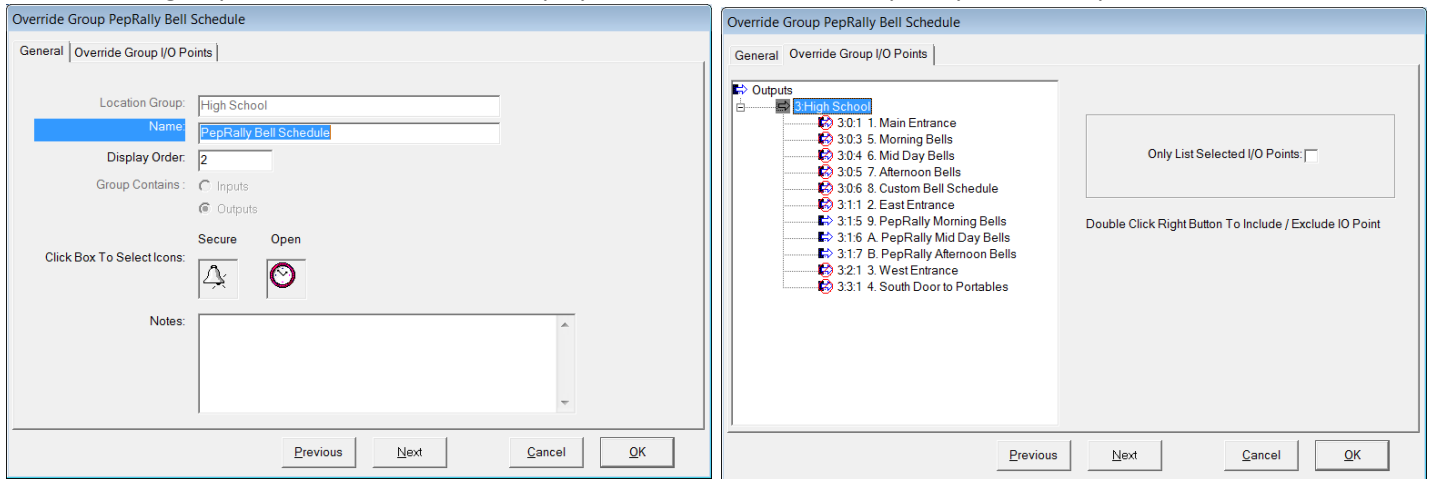


Figure 17 & 18

14. Create the third Override Group for the Custom Bell Schedule. Set the Display Order to 3 and select the Custom Bell Schedule Output. This Output is used to create custom bell schedules with Scheduled Overrides.

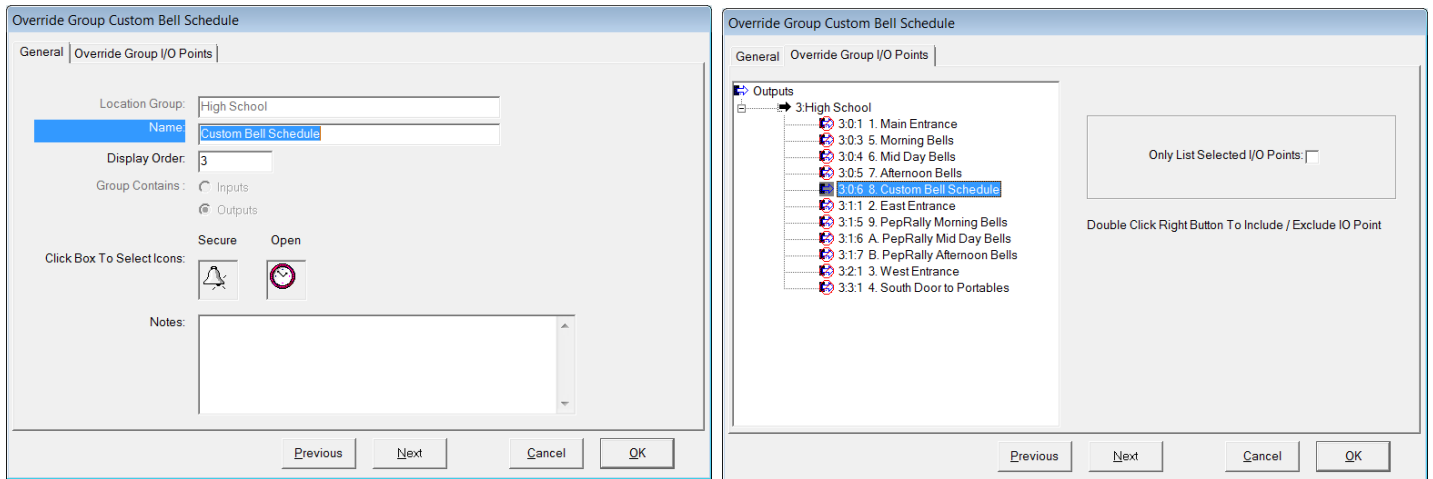


Figure 19 & 20

OPERATION

In Workstation select the Location of interest. Go to Override Groups and right click on the Schedule you want active and select - All Time Zone. Right click on the other Schedules and select All Open. The End Result is the Schedule of choice is now unlocking the Passing Doors during the Passing Periods. The inactive schedules have Green squares with a black dot in the middle. This signifies the Schedule is not running.

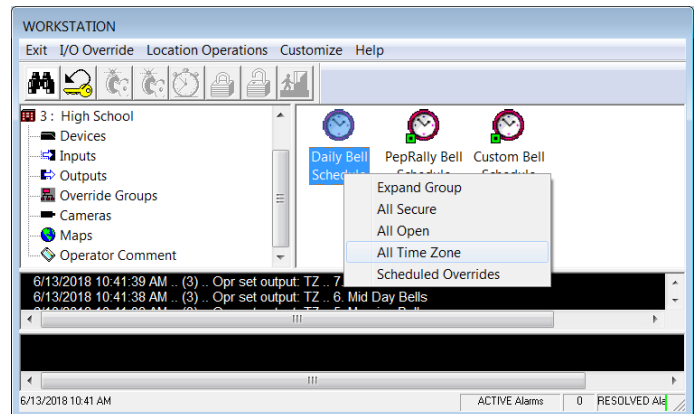


Figure 21