



DSX Access Systems, Inc.

Bell Schedules Configuration

Bell Schedules cause passing doors to unlock

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. Below is a method to synchronize the DSX and Bell System allowing specific doors to be unlocked during the passing periods and still maintain emergency lockdown control.

Configuration of Normal Bell Schedule

1. Time Zones are created for each time the system should unlock the doors. The Time Zones would be given relevant names such as First Period, Second Period.... There would be a Time Zone 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. Below you will find 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. These 12 Time Zones can be renamed and redefined at any time.
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).

See the Example below that shows the Time Zones required for this application.

DataBase 3: High School											
Exit Locations Card Holder Hardware Badging History Reports 1 Reports 2 Operator Setup Help											
Time Zone Device Output Input Linking Group Linking Level Camera											
Select Location	3: High School			TimeZone Data 28			Operator: Master			8/12/2018	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 SchoolBell 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	

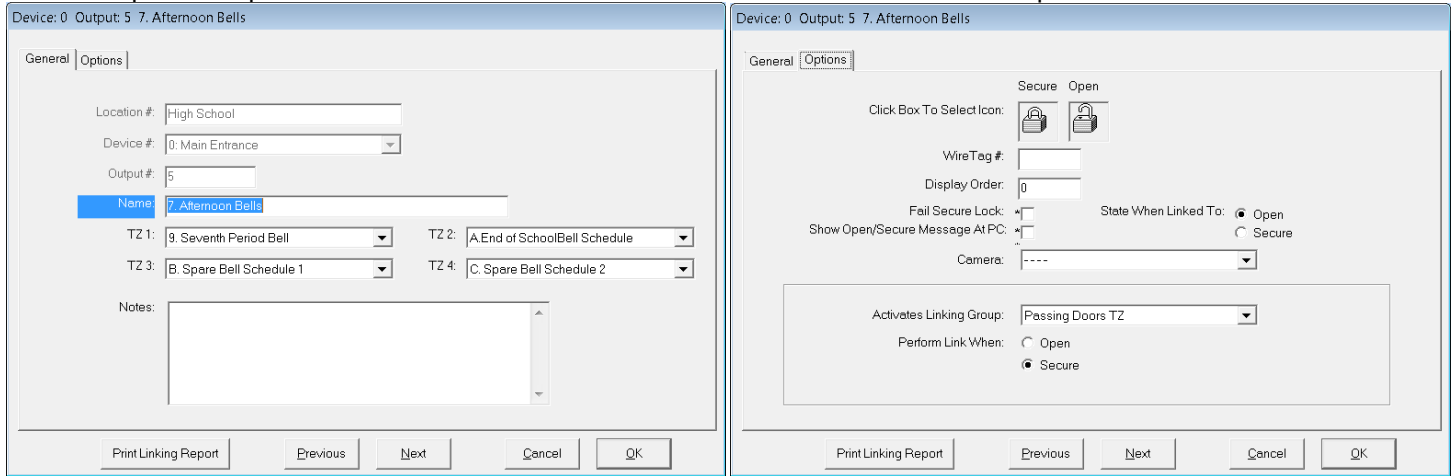
5. Create a Linking Group named "Passing Doors TZ". On the Components Tab select the Passing Doors Time Zone and assign it the "Always/Bell don't change" conditional Time Zone and a Response of Follow.

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. Virtual Output addresses can be 0:3 - 0:8 and 1:3 - 1:8. Additional Device Addresses can be used if necessary.

Assign the Passing Doors Linking Group to each of the Virtual Outputs and set it to Perform Link when Secure.

Notice Each Virtual Output has 4 different Time Zones assigned but all Activate the same Linking Group 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.

8. Below is 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.

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 SchoolBell 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

Configure Alternate or PepRally Bell Schedule

9. Follow the above steps again to create Time Zones for the PepRally or Alternate Bell Schedule. This will require creating new Time Zones for appropriate Passing Periods of the PepRally Day or some other standard alternate schedule. Notice that each time zone repeats the same thing for each day of the week except weekends and holidays.

The screenshot shows the 'Hardware' menu selected in the software. Below the menu are icons for Time Zone, Device, Output, Input, Linking Group, Linking Level, and Camera. The main window displays a table titled 'TimeZone Data 28' for '3: High School'.

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

10. Create new Virtual Outputs and assign them 4 Time Zones each of the new PepRally schedules. Use the linking group 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 are icons for Time Zone, Device, Output, Input, Linking Group, Linking Level, and Camera. The main window displays a table titled 'Output Data 11' for '3: High School'.

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

11. Here is a Summary look at all of the Outputs and the Time Zones and Linking Group assigned to them.

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 SchoolBell 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
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 Bell	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

Configuration of Override Groups

12. Next we are going to 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

Secure Open

Click Box To Select Icons:

Notes:

Previous Next Cancel OK

Override Group Daily Bell Schedule

General | Override Group I/O Points

Outputs

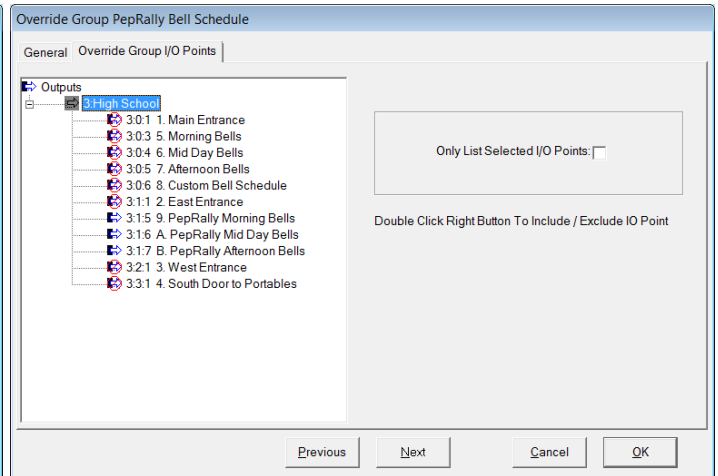
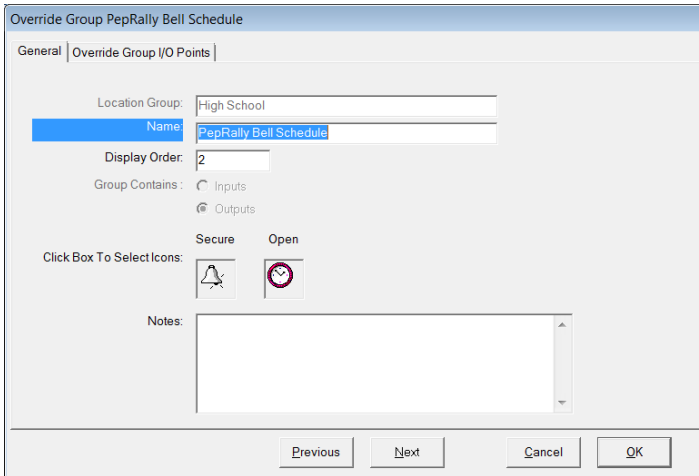
- 3.High School
 - 3.01 1. Main Entrance
 - 3.03 5. Morning Bells
 - 3.04 6. Mid Day Bells
 - 3.05 7. Afternoon Bells
 - 3.06 8. Custom Bell Schedule
 - 3.11 2. East Entrance
 - 3.15 9. PepRally Morning Bells
 - 3.16 A. PepRally Mid Day Bells
 - 3.17 B. PepRally Afternoon Bells
 - 3.21 3. West Entrance
 - 3.31 4. South Door to Portables

Only List Selected I/O Points:

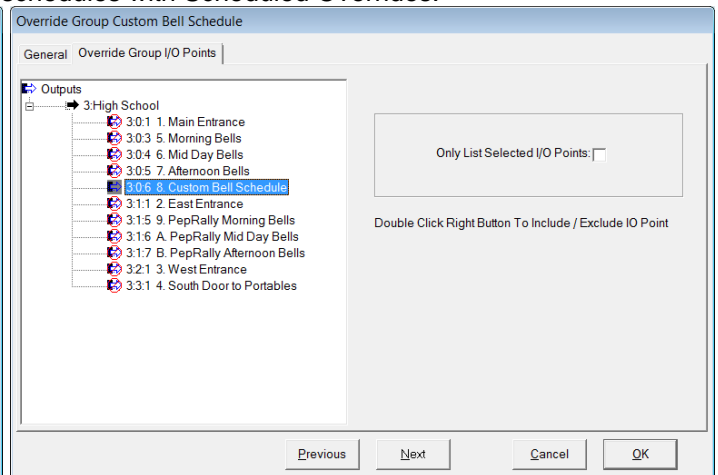
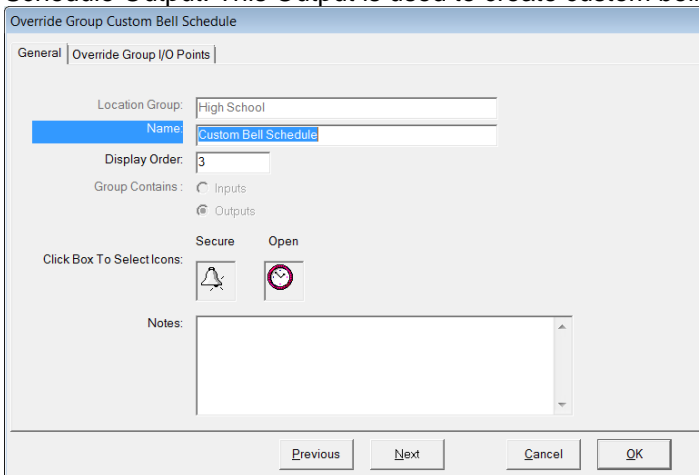
Double Click Right Button To Include / Exclude IO Point

Previous Next Cancel OK

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



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.



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.

