Stanford Campus Lockdown

Presenters:

Jose Rocha

Tracy Neil

At a Glance

Student Enrollment

7,761 undergraduate

Class of 2026 profile

9,565 graduate

As of Autumn Quarter, 2022

Faculty

2,304 faculty members

21 Nobel laureates are currently members of the Stanford community

5:1 student to faculty ratio

Campus

8,180 contiguous acres

Over **600** buildings

Research

7,500+ externally sponsored projects

$1.82 billion total budget

Established 1885 Opened 1891

Leadership

President Marc Tessier-Lavigne

Provost Persis Drell

Seven Schools

Business

Doerr School of Sustainability

Education

Engineering

Humanities and Sciences

Law

Medicine

Endowment

$36.3 billion *(as of August 31, 2022)*

See Also

- Cardinal Athletics

Our Deployment

OnGuard v7.6.382.518

1 application server

8 communications servers

2 RDS servers

All VM's - Windows Server 2019

1 database server

Windows 2016, SQL Server 2016 SP2

342+ buildings

737 access panels:

151 LNL-4420 panels

335 LNL-3300 panels

21 LNL-2220 panels

80 LNL-2210 panel

150 ILS panels

3902 total locks:

3319 wired locks

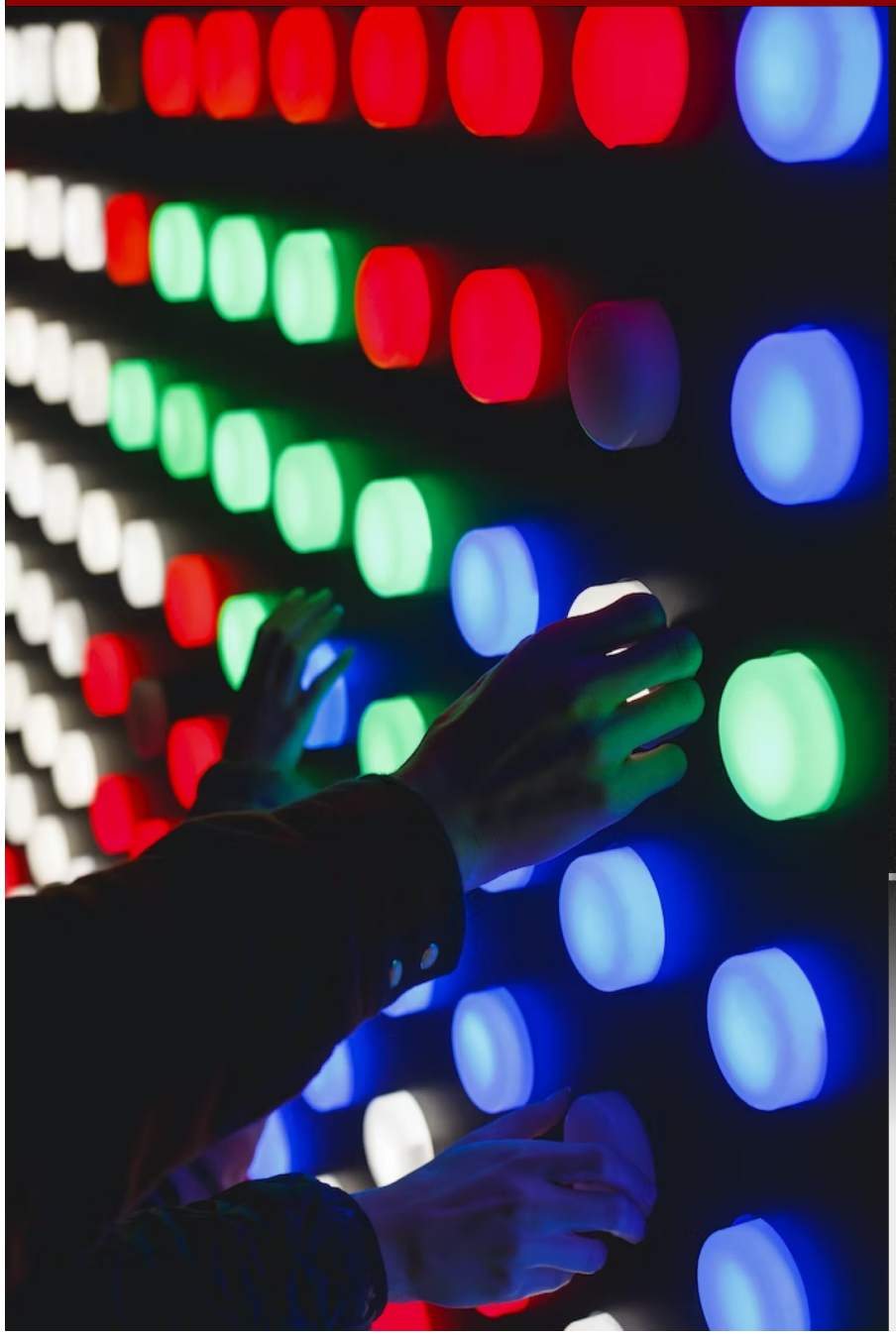
558 wireless locks

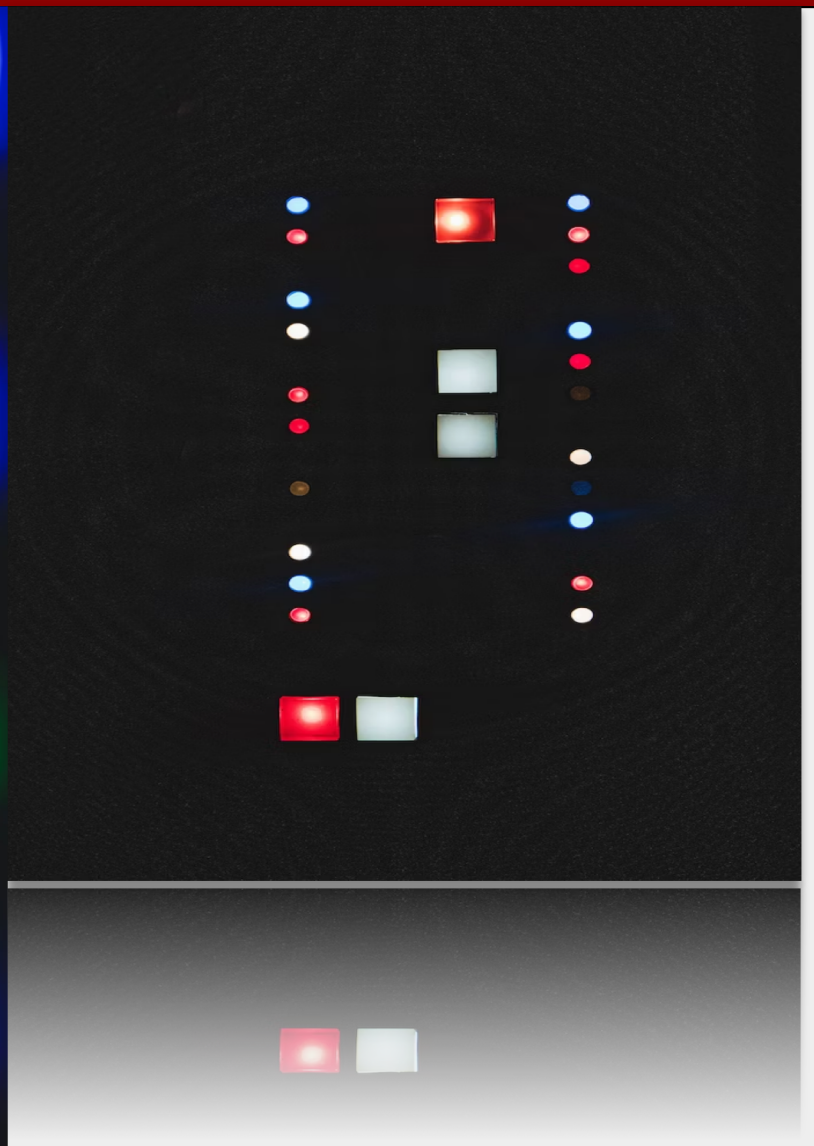
25 electrified locks

~108,000 cardholder records with active badges

93 Segments

Buttons





Lockdown Buttons

There are 3 locations that have lockdown buttons that impact multiple buildings on campus when activated.

2 locations on campus:

- Forsythe Hall (ITOC)*
- Graduate School of Business (GSB)+

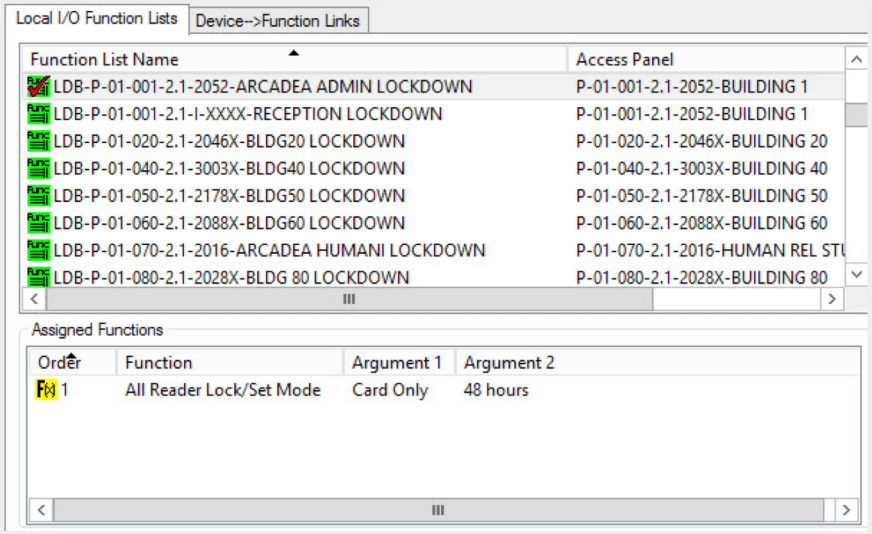
1 location off campus:

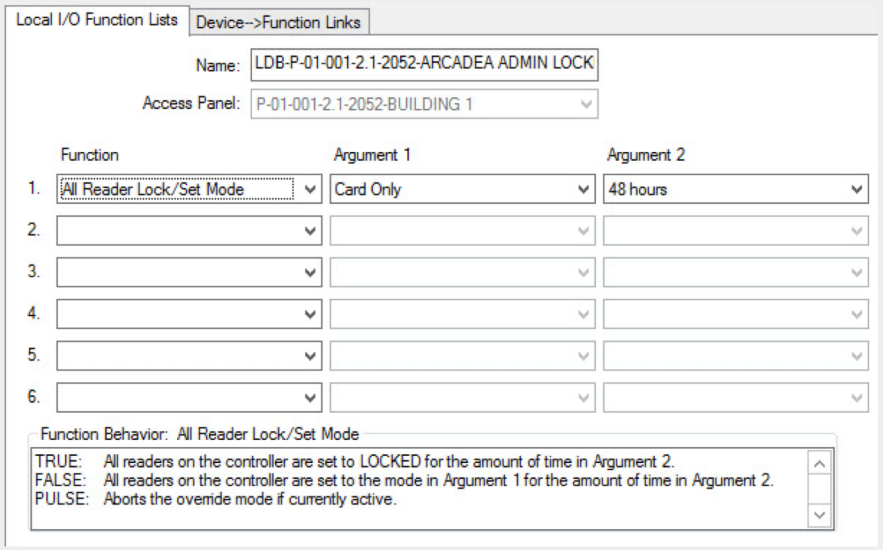
- City of Palo Alto Police Dispatch Center (CPA)*

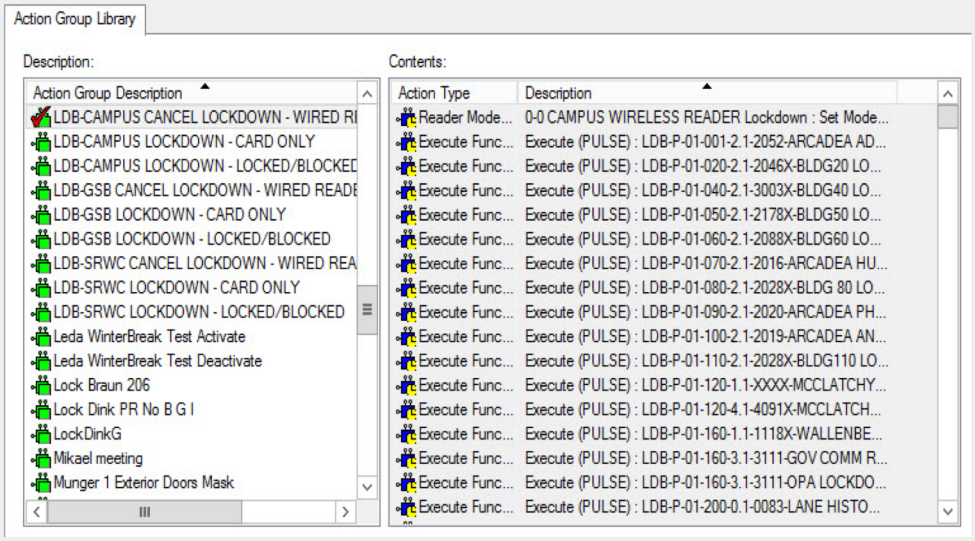
*The Forsythe Hall and CPA lockdown buttons impact ALL Lenel readers on campus

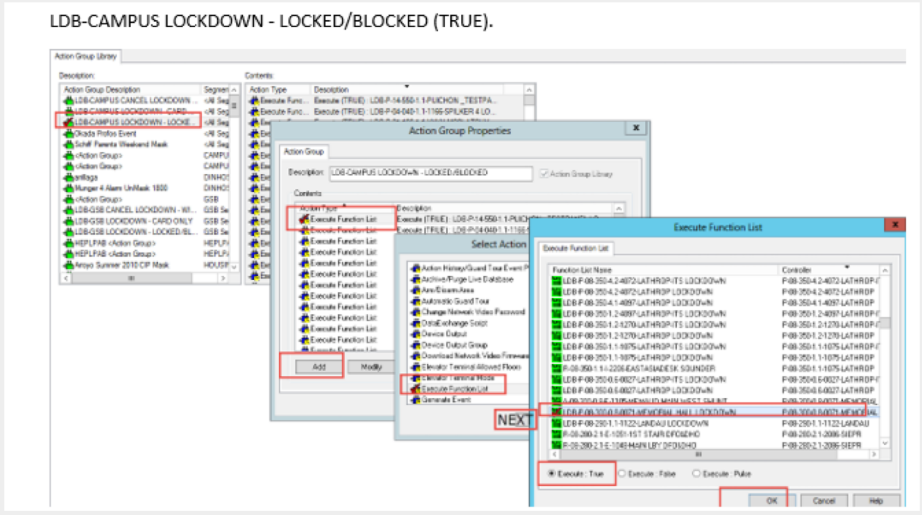
+GSB lockdown button impacts ONLY readers at the GSB.

Lockdown Programming



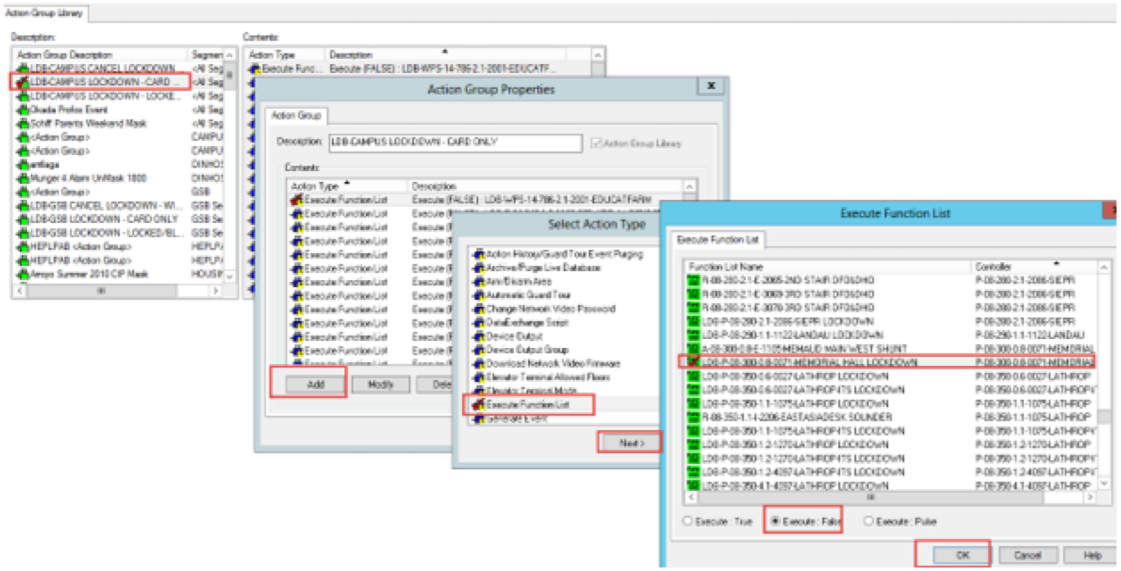




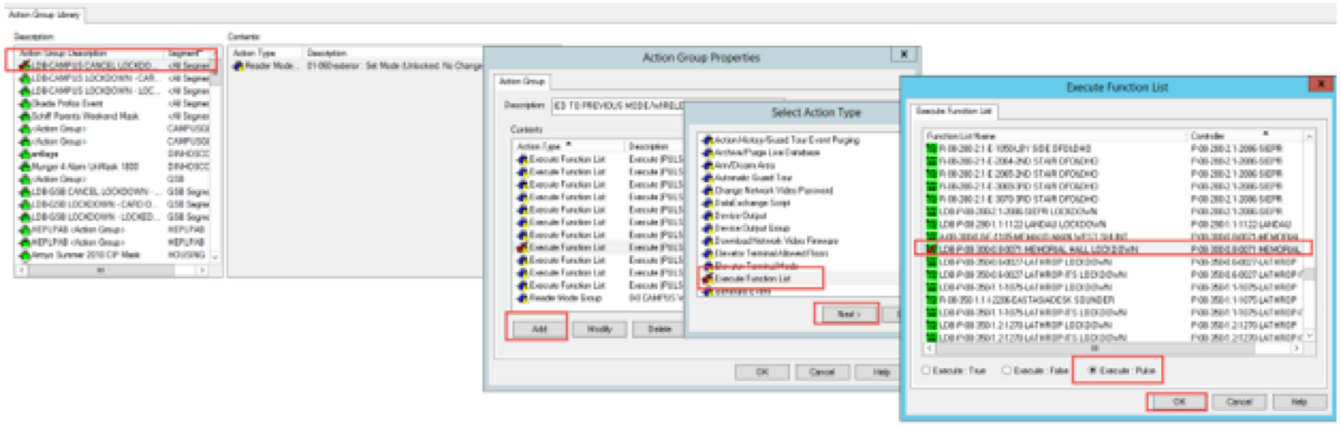


Lockdown Programming

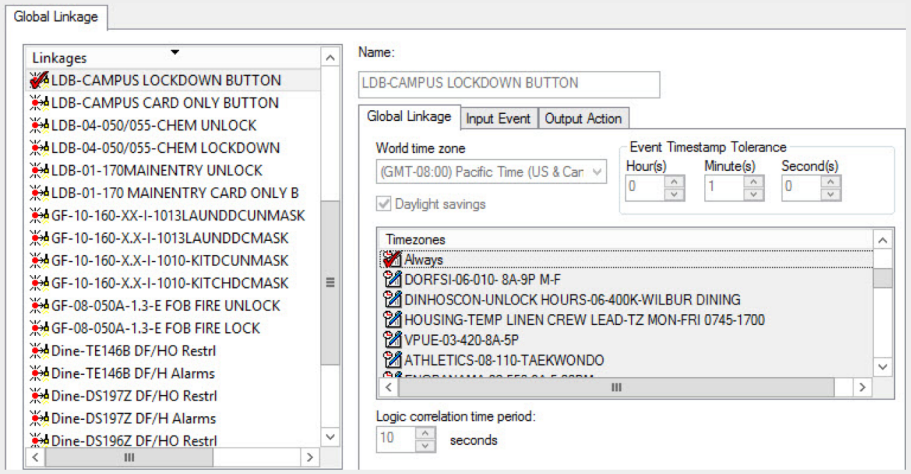
LDB-CAMPUS LOCKDOWN - CARD ONLY (FALSE)

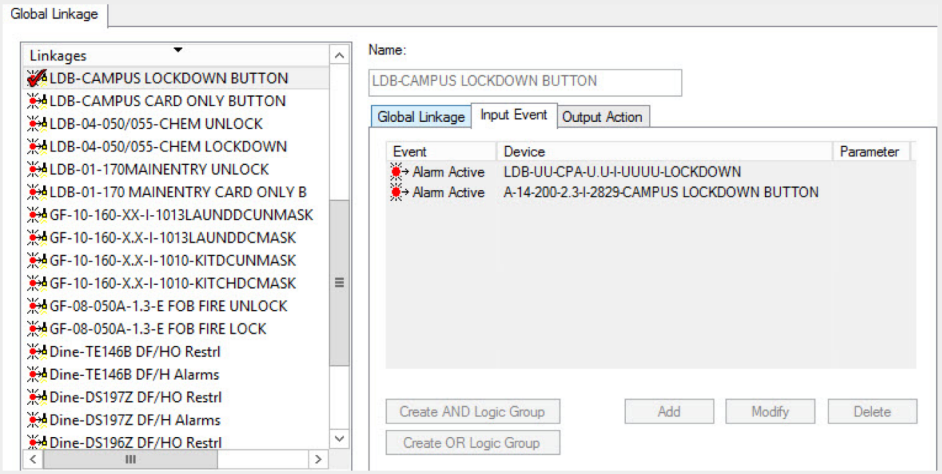


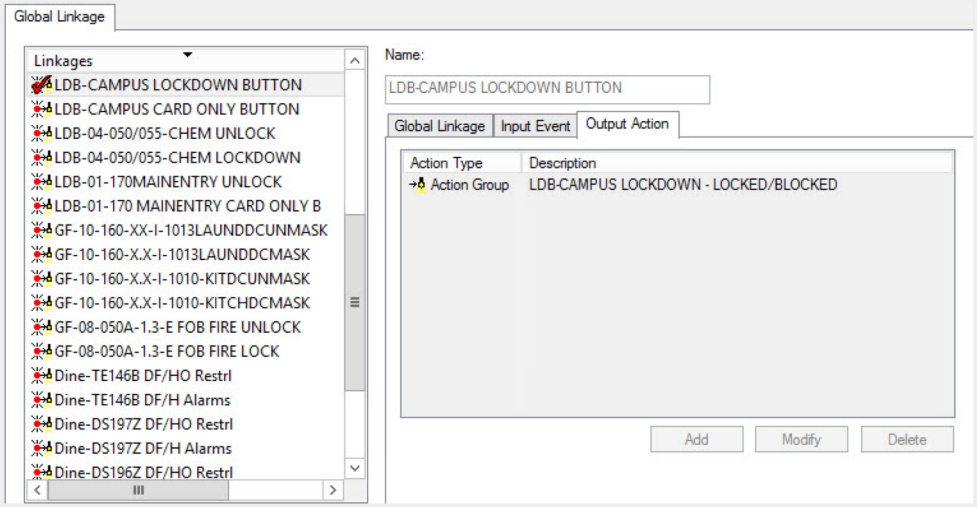
LDB-CAMPUS-CANCEL LOCKDOWN (PULSE)

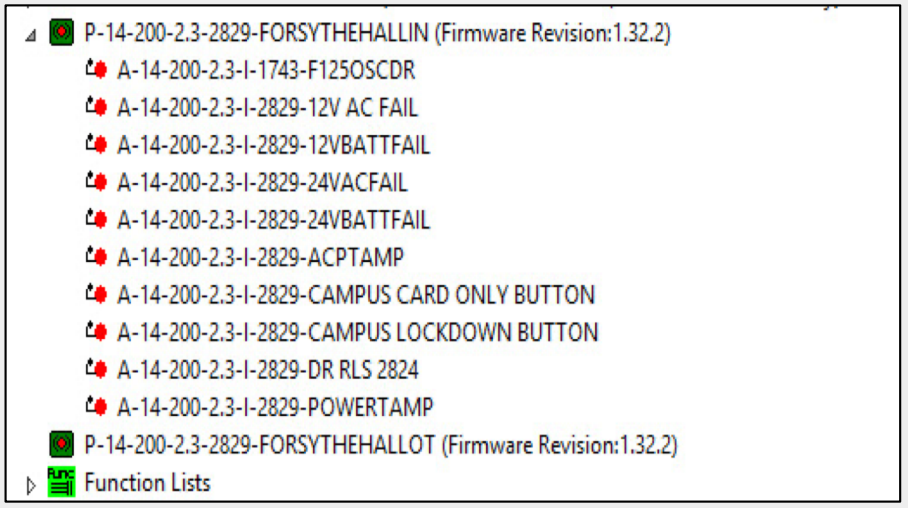


Lockdown Programming (cont)

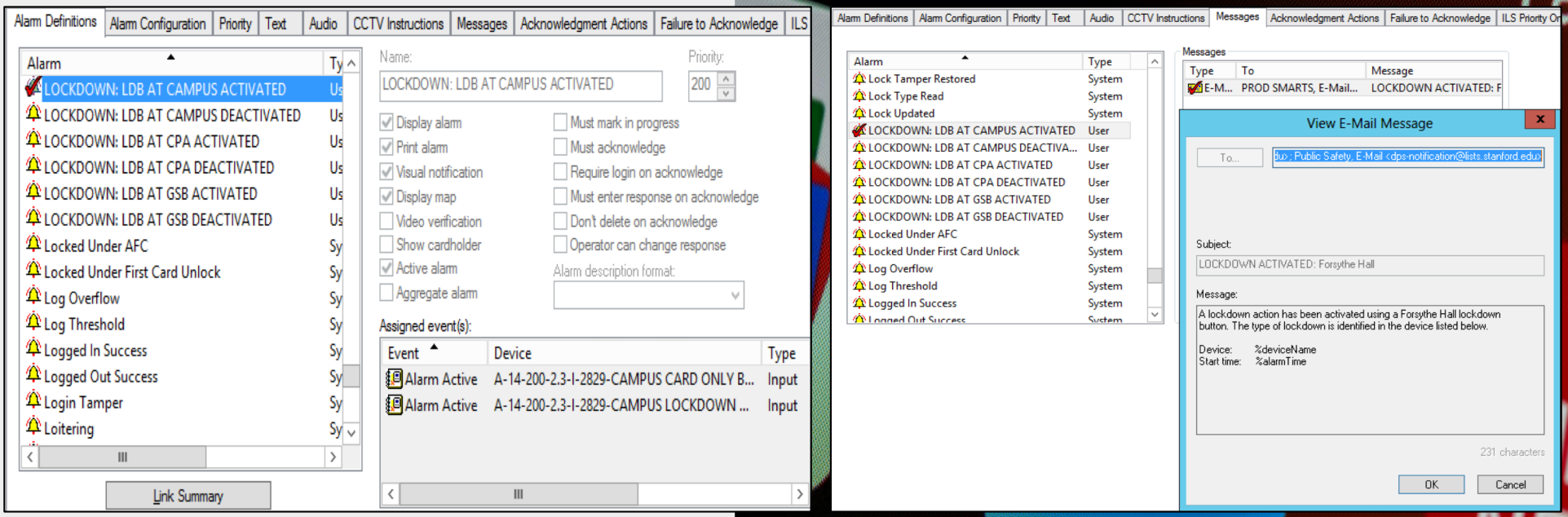








Lockdown Notifications



noreply@stanford.edu Jonathan Randolph

LOCKDOWN ACTIVATED: Forsythe Hall

We removed extra line breaks from this message.

A lockdown action has been activated using a Forsythe Hall lockdown button. The type of lockdown is identified in the device listed below.

Device: A-14-200-2.3-I-2829-CAMPUS LOCKDOWN BUTTON
Start time: 6:02:06 AM 1/3/2019

Lockdown Notifications (cont)

Stanford University

HOME SEARCH CONFIGURE HEADERS

Active Root Causes

Legend

Sev 1 Sev 2 Sev 3 Sev 4

CSV

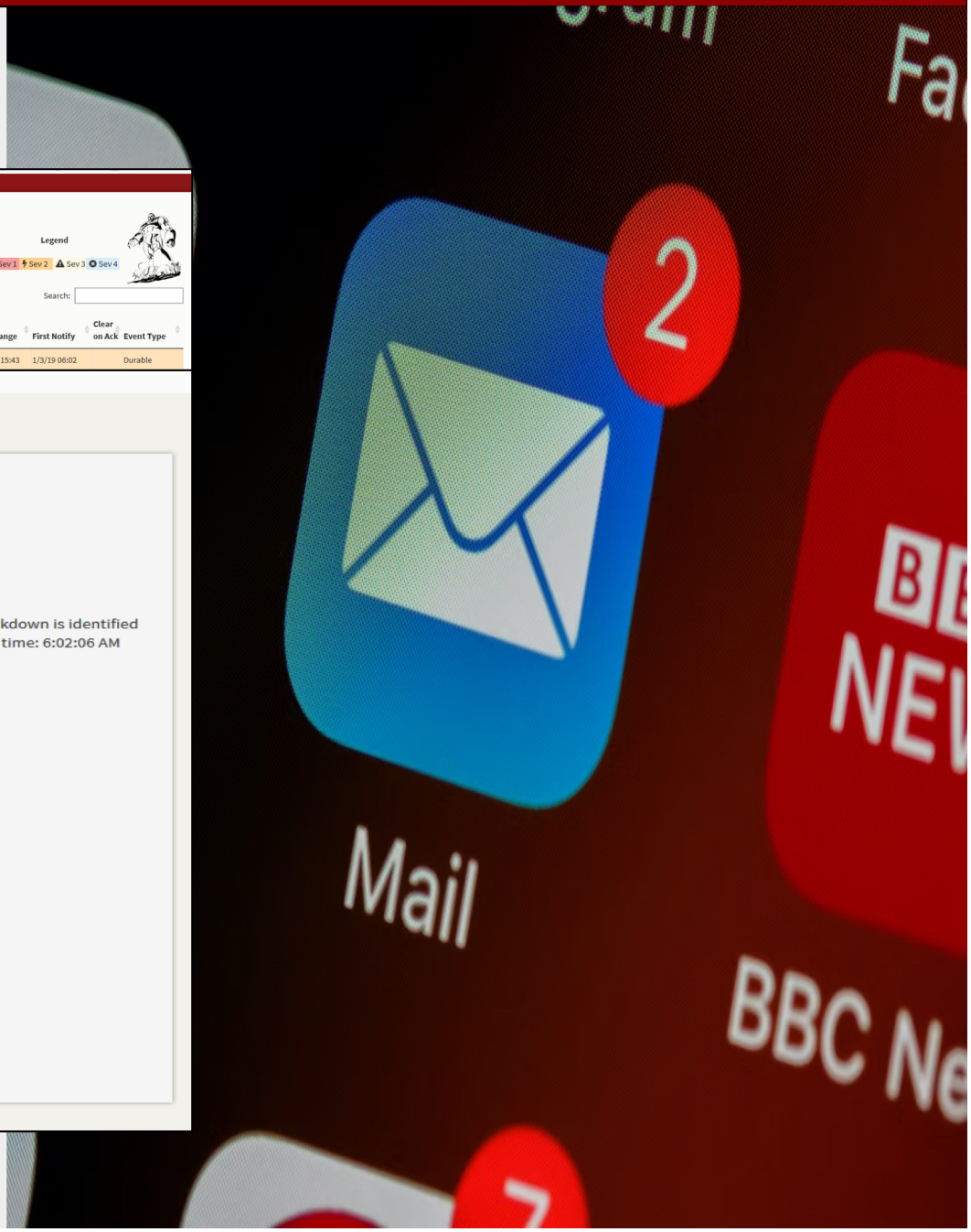
Search:

Sev	Ack	Owner	Class	Name	OA	Event	Event Text	Source	Count	Last Change	First Notify	Clear on Ack	Event Type
			ACES_-_	null	UNK	Campus Lockdown ACTIVATED	A lockdown action has been activated using a Fo	Email	10	12/3/18 15:43	1/3/19 06:02		Durable

Showing 1 to 6 of 6 entries

Alert Detail | Audit Trail | Run Book

alertClass	ACES_-_
event	Campus Lockdown ACTIVATED
name	null
source	Email
lastChangeEpoch	1546524138
status	active
hostname	null
text	A lockdown action has been activated using a Forsythe Hall lockdown button. The type of lockdown is identified in the device listed below. Device: A-14-200-2.3-I-2829-CAMPUS LOCKDOWN BUTTON Start time: 6:02:06 AM 1/3/2019 Original Timestamp: Thu, 03 Jan 2019 06:02:06 -0800
category	Stanford
severity	2
eventType	Durable
messageID	20190103140206.CDF324F_codegreen6.stanford.edu
clearOnAck	false
created_at	1/3/19 06:02
updated_at	1/3/19 06:02
oa	UNK
count	10
Acknowledged	
Owner	
LastChange	12/3/18 15:43
maintenance	
owner	
acknowlege	
Source	
Impact	
FirstNotify	
ClearOnAcknowledge	
EventType	
Category	



Lockdown Test Preparation

“To Do's” - weeks leading up to Lockdown Test

Confirm contact information for ITOC, GSB, RDE, CPA
Confirm who will be the person executing the lockdown at each location with each group (ITOC, CPA and GSB)
Confirm each group (ITOC, CPA and GSB) has the updated copy of the Lockdown Button procedures
Confirm email notification programming is current for all 3 buttons (Forsythe Hall, CPA and GSB)
Submit change request notifying campus community of lockdown date and impact
Send mass notification to building managers and key stakeholders with 1st and 2nd reminders of campus lockdown test date
Program test TZ's and schedulers
Configure/audit testing monitor zones
Configure access levels for testing and assign to the appropriate badges
Do dry run testing with techs on devices in the field

Lockdown Test Preparation (cont)

"To Do's" the week of the Lockdown Test

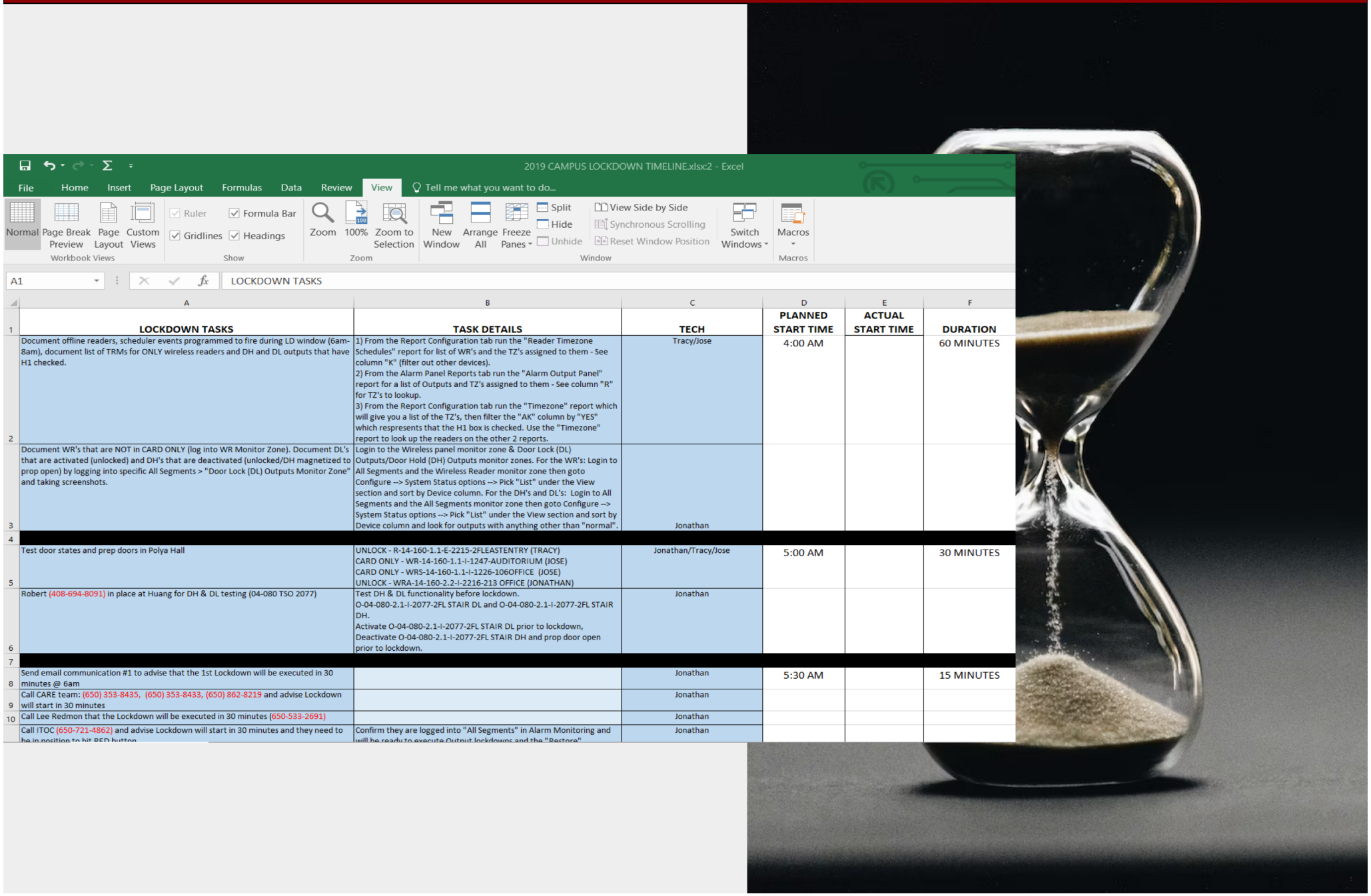
Send final mass notification reminder to building managers and key stakeholders that lockdown test has been scheduled
Audit the LDB Action Group Libraries (function lists and device groups)
Audit the Campus Wireless Reader Lockdown device group
Audit DH & DL devices groups
Add "Blocked" to ILS Priority One events for all WR's
Call CPA dispatch and confirm with CPA managers that we are still a "GO" for the lockdown test on 1/3
Update (if needed) monitor zones: All Segments, Wireless, Outputs
Remove all test equipment from the All Segments monitoring zone, remove all test equipment from the action group library lockdown programming and remove all test equipment from the device group lockdown programming
DO LAST …. Verify that all LDB functions are available from ALL SEGMENTS & GSB SEGMENT GROUP monitor zones

Lockdown Timeline

"To Do's" the day of the Lockdown Test

Document offline readers, scheduler events programmed to fire during LD window, document list of TRMs for ONLY wireless readers and DH and DL outputs that have H1 checked.
Document WR's that are NOT in CARD ONLY.
Document DL's that are activated (unlocked) and DH's that are deactivated (unlocked/DH magnetized.
Contact technician and verify access modes on test doors.
Send email communication #1 to community and advise that the 1st lockdown test will start in 30 minutes.
Contact R&DE CARE team and advise that the 1st will start in 30 minutes.
Contact ITOC monitoring team and advise that the 1st will start in 30 minutes and they need to be in position to press the lockdown button.

Lockdown Timeline



	A	B	C	D	E	F
1	**LOCKDOWN TASKS**	**TASK DETAILS**	**TECH**	**PLANNED START TIME**	**ACTUAL START TIME**	**DURATION**
2	Document offline readers, scheduler events programmed to fire during LD window (6am-8am), document list of TRMs for ONLY wireless readers and DH and DL outputs that have H1 checked.	1) From the Report Configuration tab run the "Reader Timezone Schedules" report for list of WR's and the TZ's assigned to them - See column "K" (filter out other devices). 2) From the Alarm Panel Reports tab run the "Alarm Output Panel" report for a list of Outputs and TZ's assigned to them - See column "R" for TZ's to lookup. 3) From the Report Configuration tab run the "Timezone" report which will give you a list of the TZ's, then filter the "AK" column by "YES" which respresents that the H1 box is checked. Use the "Timezone" report to look up the readers on the other 2 reports.	Tracy/Jose	4:00 AM		60 MINUTES
3	Document WR's that are NOT in CARD ONLY (log into WR Monitor Zone). Document DL's that are activated (unlocked) and DH's that are deactivated (unlocked/DH magnetized to prop open) by logging into specific All Segments > "Door Lock (DL) Outputs Monitor Zone" and taking screenshots.	Login to the Wireless panel monitor zone & Door Lock (DL) Outputs/Door Hold (DH) Outputs monitor zones. For the WR's: Login to All Segments and the Wireless Reader monitor zone then goto Configure --> System Status options --> Pick "List" under the View section and sort by Device column. For the DH's and DL's: Login to All Segments and the All Segments monitor zone then goto Configure --> System Status options --> Pick "List" under the View section and sort by Device column and look for outputs with anything other than "normal".	Jonathan			
4						
5	Test door states and prep doors in Polya Hall	UNLOCK - R-14-160-1.1-E-2215-2FLEASTENTRY (TRACY) CARD ONLY - WR-14-160-1.1-I-1247-AUDITORIUM (JOSE) CARD ONLY - WRS-14-160-1.1-I-1226-106OFFICE (JOSE) UNLOCK - WRA-14-160-2.2-I-2216-213 OFFICE (JONATHAN)	Jonathan/Tracy/Jose	5:00 AM		30 MINUTES
6	Robert (408-694-8091) in place at Huang for DH & DL testing (04-080 TSO 2077)	Test DH & DL functionality before lockdown. O-04-080-2.1-I-2077-2FL STAIR DL and O-04-080-2.1-I-2077-2FL STAIR DH. Activate O-04-080-2.1-I-2077-2FL STAIR DL prior to lockdown, Deactivate O-04-080-2.1-I-2077-2FL STAIR DH and prop door open prior to lockdown.	Jonathan			
7						
8	Send email communication #1 to advise that the 1st Lockdown will be executed in 30 minutes @ 6am		Jonathan	5:30 AM		15 MINUTES
9	Call CARE team: (650) 353-8435, (650) 353-8433, (650) 862-8219 and advise Lockdown will start in 30 minutes		Jonathan			
10	Call Lee Redmon that the Lockdown will be executed in 30 minutes (650-533-2691)		Jonathan			
	Call ITOC (650-721-4862) and advise Lockdown will start in 30 minutes and they need to be in position to hit RED button	Confirm they are logged into "All Segments" in Alarm Monitoring and will be ready to execute Output lockdowns and the "Restore"	Jonathan			

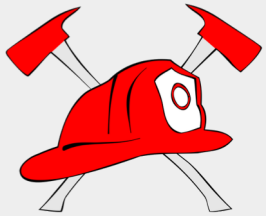
Temptation

It was bound to happen!

Detrios – Deployed 2020

Locked Reader Override Solution (LROS)

Detrios LROS deployed 2020 - allows specific individuals such as Public Safety and Fire Safety First Responders to override this default functionality and gain access at any reader in any reader status including Locked.



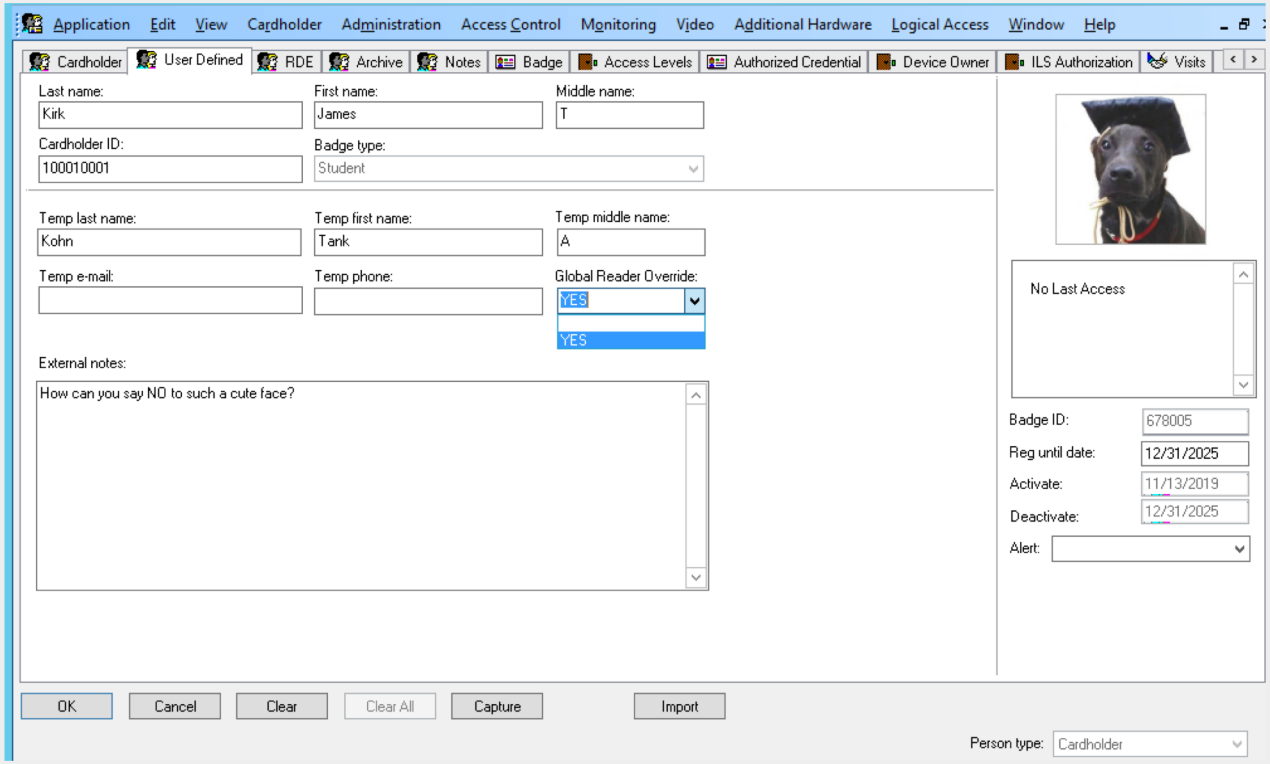
Uses Lenel OnGuard DataConduIT API to allow for specific cardholders (with active badges and valid activate and deactivate dates) to be granted access to readers when any access denied event is received:

- Locked reader status
- Card and Pin reader status
- Invalid access level

Integration looks for access denied events, checks to see whether the cardholder is an authorized individual, and if so integration pulses open the door

Detrios

Global override cardholders – These cardholders are identified in OnGuard by the use of a cardholder dropdown field Global Reader Override



Only Systems Administrators can edit Global Reader Override field

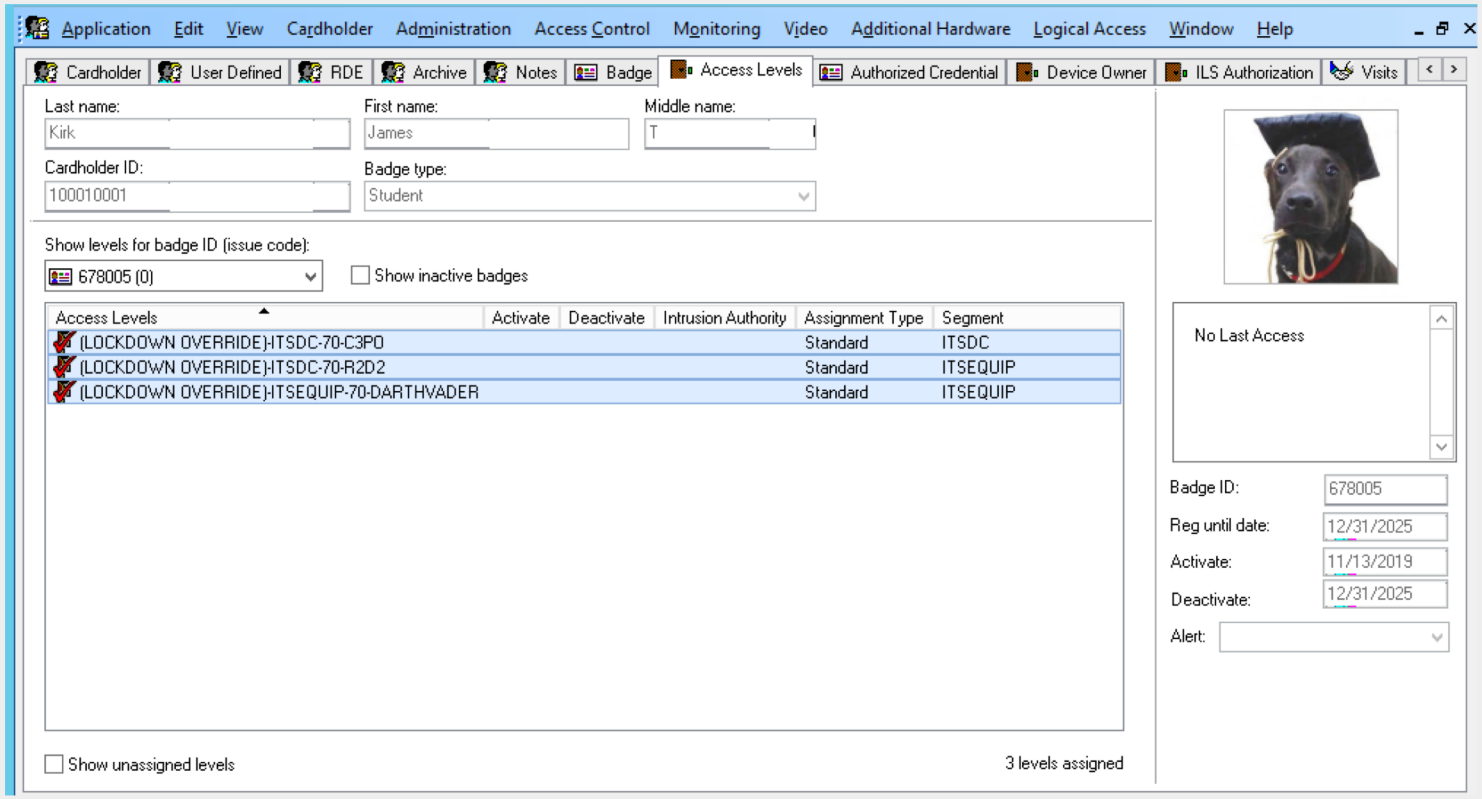
- Public Safety/Fire Marshal officers who have this authority are audited by our team bimonthly

Global Reader Override permission resolves issues where:

- we have when new readers are programmed in OnGuard system through third party integrators, and our team is not yet aware of the changes and KNOX access levels haven't yet been updated.
- less experienced building managers inadvertently modify or remove KNOX access levels from the first responders

Detrios

Local override cardholders – These cardholders are identified by having access level assignments that correspond to the override access levels defined in the LROS configuration file

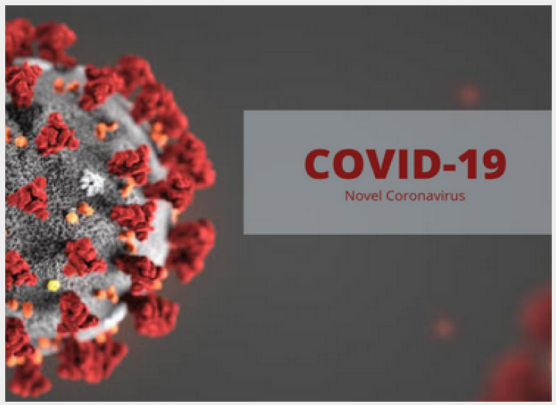


Program lockdown override access levels with a standard prefix “(LOCKDOWN OVERRIDE)” and add the name of the access level to an “Authorized access levels” configuration file on the Detrios server.

Detrios

Disable override access to specific card readers

Add the names of card readers that should NEVER be accessed using the lockdown override feature to a “reader exclusion” configuration file on the server. These card readers would include doors that provide access to hazardous material or infectious diseases.



Other use cases for lockdown functionality (Card Only button)...

POWER OUTAGES!

- Historic 4 day outage summer 2022
- Don't know when panel backup battery runs out of power
- Don't know what the door state is from Alarm Monitoring - sea of Red X's
- Don't know when power will come on and go off again

Card Only "Yellow Button" to secure buildings into card-only status once power to that building comes back online.

- Card Only override prevents TRMs and scheduler actions from unlocking doors; card accessible
- May need to be pressed multiple times over multiple days

The Covid Years "Lockdown" Method: March 2019 through Labor Day 2021

During the Covid years we utilized Lenel HOLIDAY tags to "lock down" (secure) campus

Created a "rolling" COVID HOLIDAY tag that applied to ALL segments.

- Prevented TRMs from firing and unlocking doors; does not prevent scheduler actions firing
- Prevented cardholders from accessing secured buildings (H1 must be unchecked in timezone)
- Highly segmented, different buildings opened up at different times, remove the COVID holiday for a segment by building manager request
- All Covid holiday tags removed Labor day 2021

- Bug: Holiday duration somewhere greater than 99 days and less than 150 days caused unexpected behavior - we saw readers unlock unexpectedly as though the holiday wasn't observed

8.2 Badge Override feature

Per the Release notes for 8.2, a new ‘Badge Override’ is built into Lenel OnGuard:

“To allow badge access through reader with a Reader Mode set to Locked (such as for a first responder badge), an override attribute has been added to the Badge Form in OnGuard System Administration. The Enable override locked reader mode check box enables access through a reader in locked reader mode for a badge with an active Access Level for that reader”

Something we look forward to testing and comparing against our Detrios LROS integration

Q&A

Thanks!

Jose Rocha
Senior Applications Engineer
jrocha@stanford.edu
650-796-2620

Tracy Neil
Senior Application Support Administrator
tneil@stanford.edu
925-998-7022