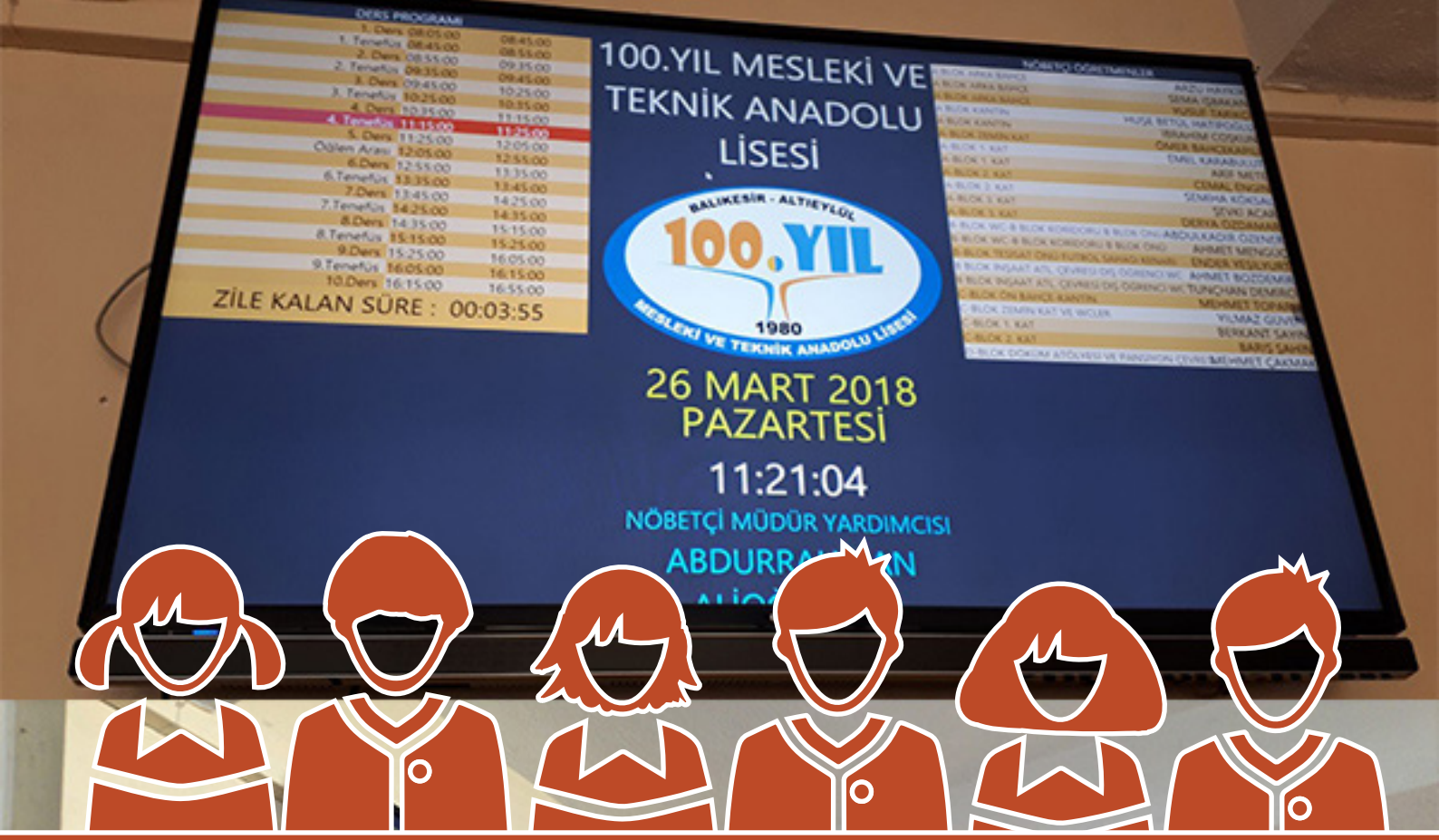

PORTOSCHOOL

PORT OF SCHOOL

INTERNET OF THINGS
OPENSOURCE PROJECT
BUILT ON
RASPBERRY PI3 + WINDOWS IOT

CREDITS

Authors	*Reviewers*	*Project Coordinator*	*Content Development Editor*
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Acknowledgments

PortoSchool IOT
A Raspberry Pi3 Project Currently Working in front of a School Entry on a Giant Monitor. Kiosk Display for School news at the School Entry. Shows ulletins / Announcements, Daily Weekly Course Plan and Sentry Staff of the day as Pictures and Documents as a Slide and also Current Weather, Daily School Sentries etc.

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2 Credits
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7 Configuration - Left Panel
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10 Settings - College / Foundation Logo
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12 Settings - Weekly Course Table

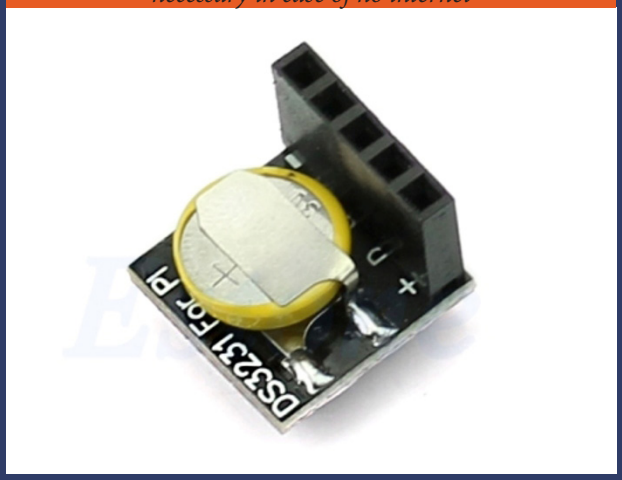
HARDWARE REQUIREMENTS

FULL HD LED MONITOR > 46”

WINDOWS IOT COMPATIBLE
SINGLE-BOARD DEVICES
(raspberrypi3ModelB,Dragonboard)

HDMI CABLE

RTC MODULE chip-S3231
REALTIME CLOCK MODULE
necessary in case of no internet



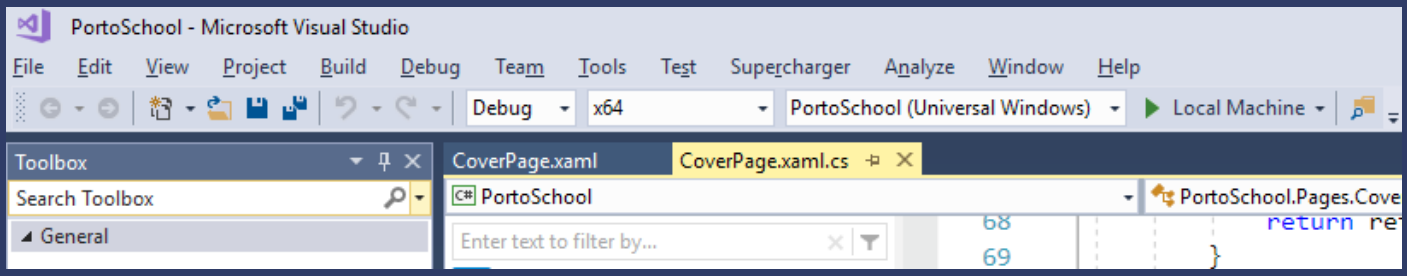
SOFTWARE REQUIREMENTS

- Windows 10 x64 or Higher
- Visual Studio 2017 or Higher. (You must install Universal Windows Platform Modules.)
- A Local Copy of PortoSchool Opensource Github Project

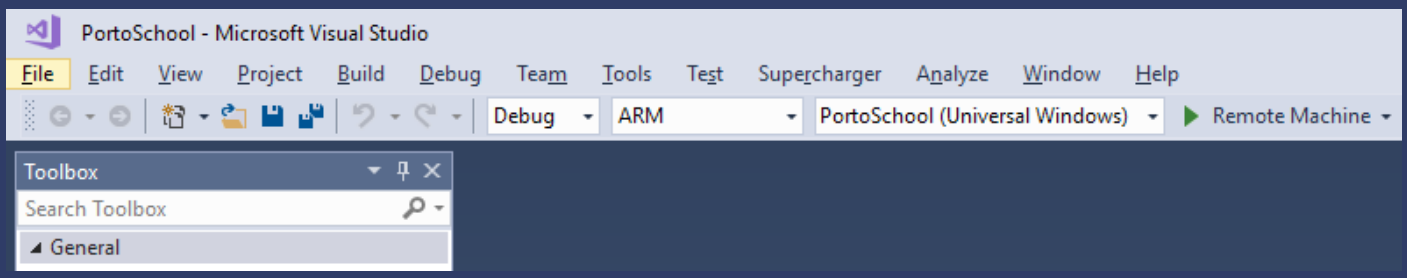
INSTALLATION AND RUNNING

You can run or deploy portoschool on any windows dependent operating system.
Thus, it can run on windows 10 or higher, Windows IOT (which is specified for single-board mini computers).

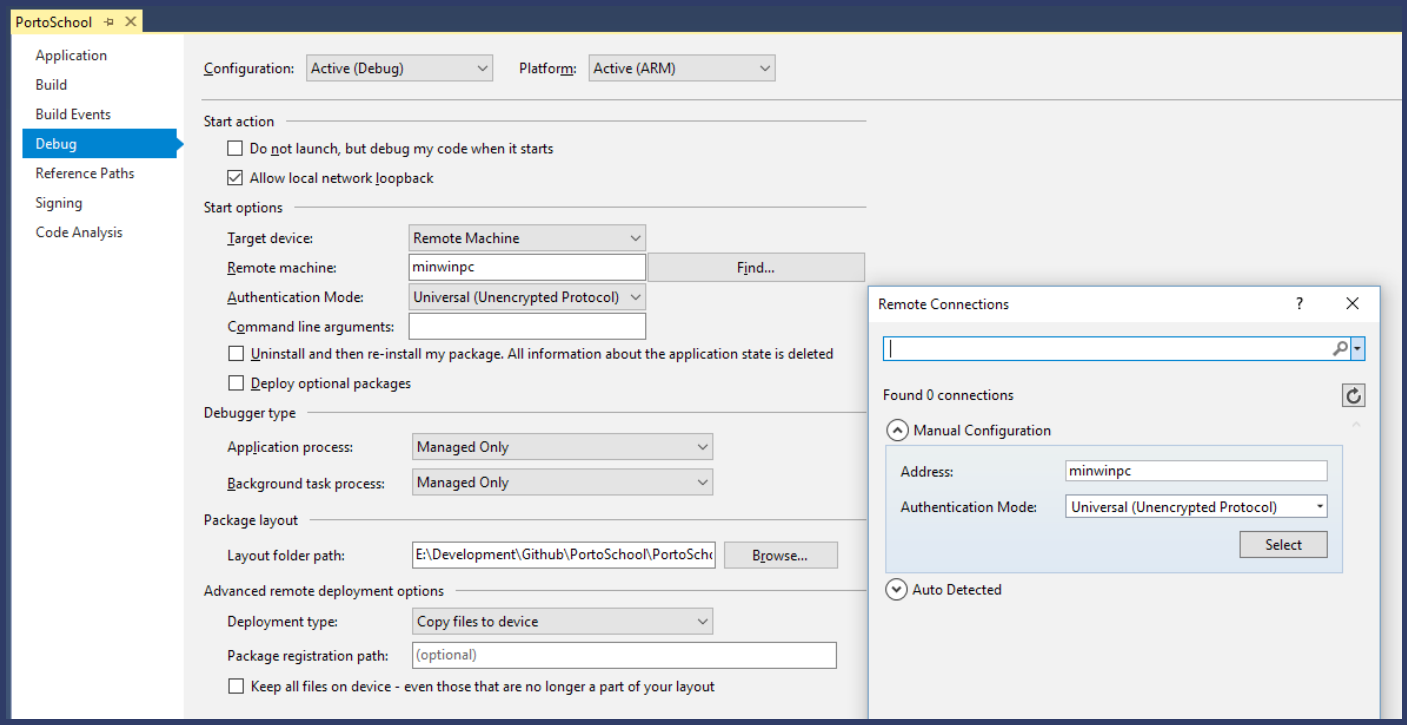
To run on windows 10 for development and debugging purposes you need to select
Debug | x64 | Portoschool | Local Machine
on top of Visual Studio 2017 and press “Run”.



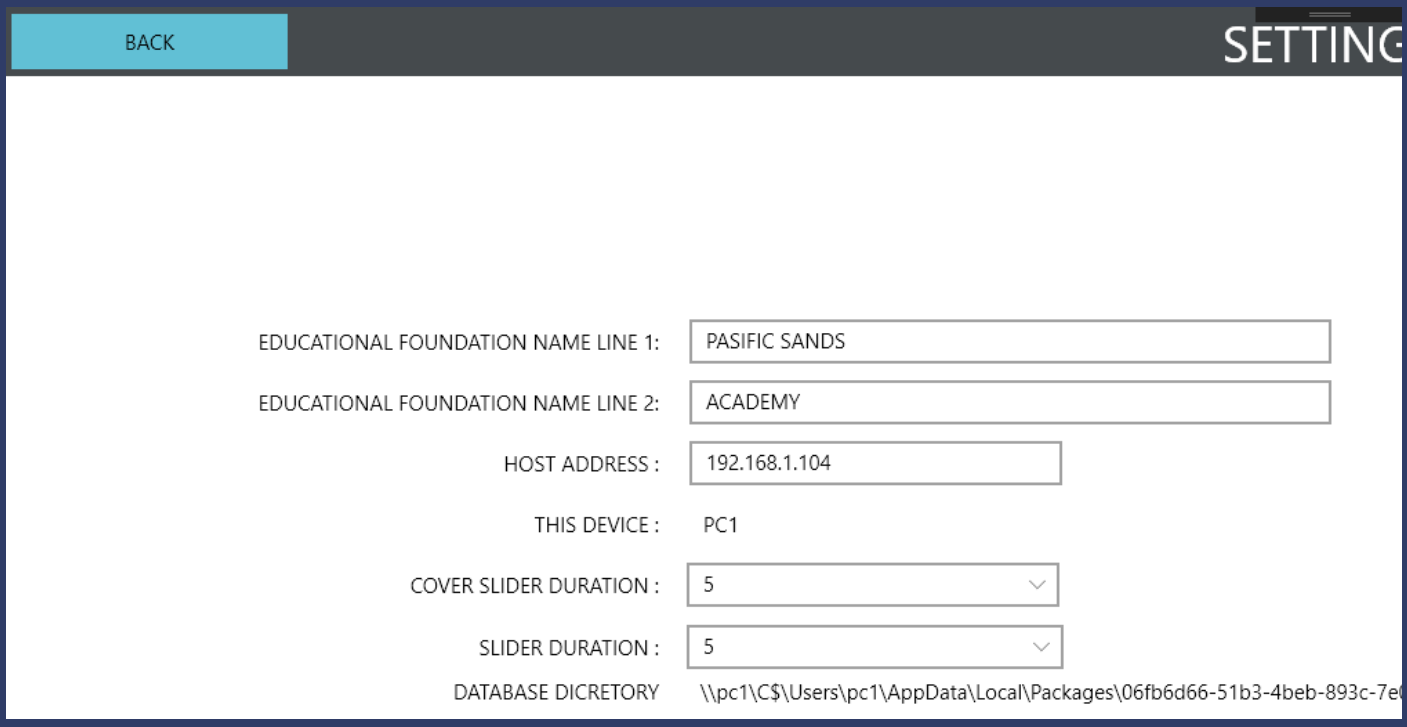
To deploy and run on Windows IOT that you installed on any compatible Single-Board Mini Computer like Raspberry PI3, you need to select the following combination :
Debug | ARM | PortoSchool | Remote Machine.



Before press the run button, you have to connect your mini PC on network via Ethernet cable or WI-FI.
Your PC and Single-Board Mini-PC should be on same subnet mask. Even you should check Mini-PC is on the list of Windows IOT Core Dashboard.



CONFIGURATION - LEFT PANEL



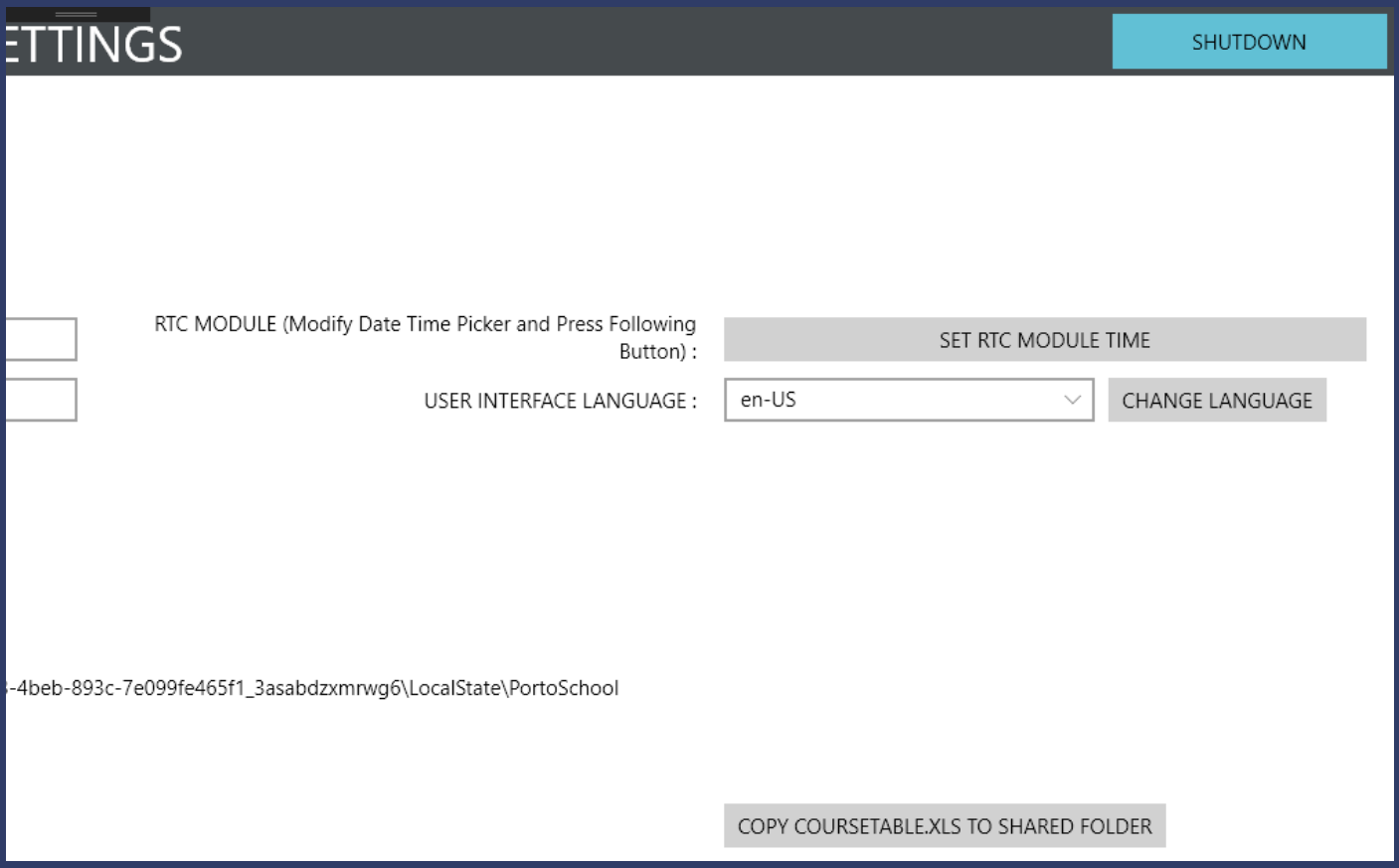
Educational Foundation Name Line 1,2 : Label on top of Logo Picture at Presentation Cover Page.
Host Adress : Read-only Section. Refers the Mini-PC's IP. So you can connect it via Remote-PC using this address.

This Device : Default is minwinpc for Windows IOT | Raspberry PI3. Its also modifiable via Windows 10 IOT Core Dashboard tool.

Cover Slider Duration : Presentation Cover Slider Page delay duration 5 to 120 seconds.
Slider Duration : Bulletins / Announcements / Picture Slides delay duration 5 to 120 seconds.

Database Directory : Refers the Directory that you have to copy bulletins / announcement / picture files (currently pdf, jpg only available).

CONFIGURATION - LEFT PANEL



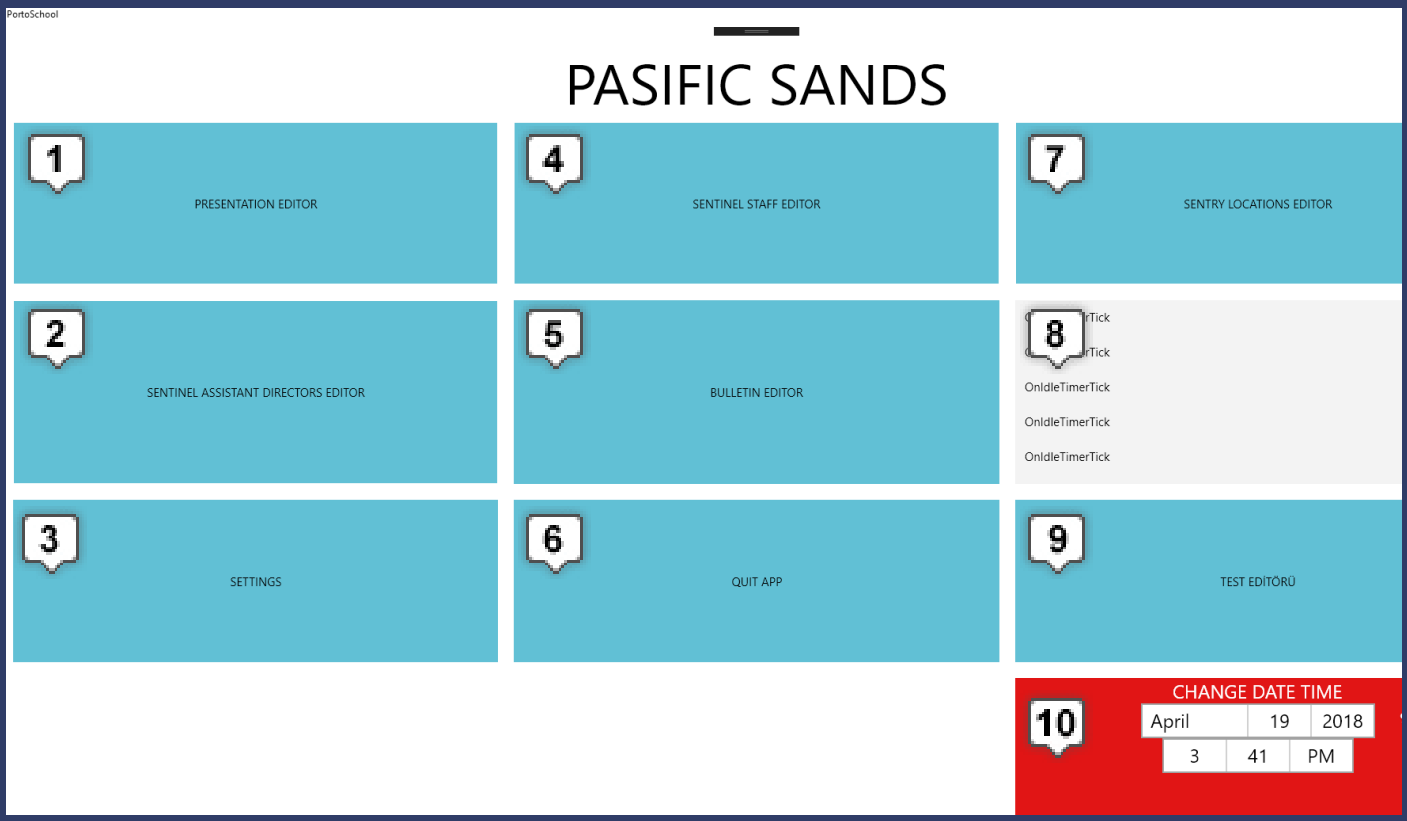
Set RTC Module Time : Firstly, you need to change time manually from Change Date/ Time Panel. As you press this button Real Time Module (if exists) with ds3231 chip will be set. This option is useful when MiniPC has no internet. Because of Raspberry PI3 does not have an internal clock.

Change Language : Sets User Interface Language (Currently only English and Turkish avaible.)

Copy CourseTable.xlsx to Shared Folder : Copies / Overrides CourseTable.xlsx thus you can modify weekly course table. Daily Course Time Plan will be displayed in Presentation Cover Page.

PUBLISHING BULLETIN / ANNOUNCEMENT PAGES

DASHBOARD



1. Presentation Editor :

Preview or Delete Pictures (Currently only jpg files supported by portoschool)

2. Sentinel Assistant Editor :

Settings the Sentinel Assistants Staff that is commissioned weekly period of days. So it display the day of Assistant on the Middle-Bottom Of Cover Page.

3. Settings : Details are explained the next page titled SETTINGS

4. Sentinel Staff Editor :

Settings the Sentinel Teachers or Attendants that is commissoned weekly period of the days. So the list of multiple sentinels and their sentry locations on the Right Side of Cover Page.

5. Bulletin Editor :

Preview or Delete Bulletin Documents. (Currently only pdf files supported by portoschool)

6. Quit App :

7. Sentry Locations Editor :

8. Debug Log :

9. Test Editor :

SETTINGS - COLLEGE / FOUNDATION LOGO

SETTINGS - SENTINEL STAFF

SETTINGS - WEEKLY COURSE TABLE

COURSETABLE-en-US.xlsx file in Windows IOT data directory is for Identifying Lessons and Break Times Program Template.

WARNING !! You can modify the time and Title Labels but add or remove any row,column or modifying titles; may damage application. Even tough Labels or Time cells can be blank.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1	1	MONDAY-TITLE	MONDAY-T1	MONDAY-T2	2	TUESDAY-TITLE	TUESDAY-T1	TUESDAY-T2	3	WEDNESDAY-TITLE	WEDNESDAY-T1	WEBNESDAY-T2	4	THURSDAY-TITLE	TURSDAY-T1	THURSDAY-T2	5	FRIDAY-TITLE	FRIDAY-T1	FRIDAY-T2	6	SATURDAY-TITLE	SATURDAY-T1	SATURDAY-T2	7	SUNDAY-TITLE	SUNDAY-T1	SUNDAY-T2
2		1. Lesson	8:05	8:45		1. Lesson	8:05	8:45		1. Lesson	8:05	8:45		1. Lesson	8:05	8:45		1. Lesson	8:05	8:45								
3		1. Break	8:45	8:55		1. Break	8:45	8:55		1. Break	8:45	8:55		1. Break	8:45	8:55		1. Break	8:45	8:55								
4		2. Lesson	8:55	9:35		2. Lesson	8:55	9:35		2. Lesson	8:55	9:35		2. Lesson	8:55	9:35		2. Lesson	8:55	9:35								
5		2. Break	9:35	9:45		2. Break	9:35	9:45		2. Break	9:35	9:45		2. Break	9:35	9:45		2. Break	9:35	9:45								
6		3. Lesson	9:45	10:25		3. Lesson	9:45	10:25		3. Lesson	9:45	10:25		3. Lesson	9:45	10:25		3. Lesson	9:45	10:25								
7		3. Break	10:25	10:35		3. Break	10:25	10:35		3. Break	10:25	10:35		3. Break	10:25	10:35		3. Break	10:25	10:35								
8		4. Lesson	10:35	11:15		4. Lesson	10:35	11:15		4. Lesson	10:35	11:15		4. Lesson	10:35	11:15		4. Lesson	10:35	11:15								
9		4. Break	11:15	11:25		4. Break	11:15	11:25		4. Break	11:15	11:25		4. Break	11:15	11:25		4. Break	11:15	11:25								
10		5. Lesson	11:25	12:05		5. Lesson	11:25	12:05		5. Lesson	11:25	12:05		5. Lesson	11:25	12:05		5. Lesson	11:25	12:05								
11		Öğlen Arası	12:05	12:55		Öğlen Arası	12:05	12:55		Öğlen Arası	12:05	12:55		Öğlen Arası	12:05	12:55		Öğlen Arası	12:05	12:55								
12		6.Lesson	12:55	13:35		6.Lesson	12:55	13:35		6.Lesson	12:55	13:35		6.Lesson	12:55	13:35		6.Lesson	12:55	13:35								
13		6.Break	13:35	13:45		6.Break	13:35	13:45		6.Break	13:35	13:45		6.Break	13:35	13:45		6.Break	13:35	13:45								
14		7.Lesson	13:45	14:25		7.Lesson	13:45	14:25		7.Lesson	13:45	14:25		7.Lesson	13:45	14:25		7.Lesson	13:45	14:25								
15		7.Break	14:25	14:35		7.Break	14:25	14:35		7.Break	14:25	14:35		7.Break	14:25	14:35		7.Break	14:25	14:35								
16		8.Lesson	14:35	15:15		8.Lesson	14:35	15:15		8.Lesson	14:35	15:15		8.Lesson	14:35	15:15		8.Lesson	14:35	15:15								
17		8.Break	15:15	15:25		8.Break	15:15	15:25		8.Break	15:15	15:25		8.Break	15:15	15:25		8.Break	15:15	15:25								
18		9.Lesson	15:25	16:05		9.Lesson	15:25	16:05		9.Lesson	15:25	16:05		9.Lesson	15:25	16:05		9.Lesson	15:25	16:05								
19		9.Break	16:05	16:15		9.Break	16:05	16:15		9.Break	16:05	16:15		9.Break	16:05	16:15		9.Break	16:05	16:15								
20		10.Lesson	16:15	16:55		10.Lesson	16:15	16:55		10.Lesson	16:15	16:55		10.Lesson	16:15	16:55		10.Lesson	16:15	16:55								
21																												