interact Hospitality

Hotel room demo case and dashboard demonstration

By Daniel Walker



Hotel room demo case

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Swissotel - Singapore

Refurbishment of 1200+ rooms to the networked Interact Hospitality system

Room control

• Dimming, switching, HVAC, guest occupancy, anti-stumble detection and lighting, and room monitoring

Software and integration

- Dashboard monitoring of room status and overriding of room functions on guests' request
- Filtering of room status for staff management and coordination
- System health checks and reporting
- Export of system activity data
- Integration to Oracle

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Over view of the demonstration

The Interact hospitality solution is an interconnected collection of network devices, integration solutions and software that can perform multiple functions to balance guest comfort, energy management, and reporting of room status.

The system can also be paired with the Interact Hospitality dashboard which hotel facility management can use to determine the best direction for cleaning staff and monitor the rooms network devices for their health and status of the room.

To help demonstrate these advanced functionality a demo case has been developed that is available for purchase which simulates many features and functions commonly found within an Interact hotel room.

This demonstration is based on the commercially successful project swissôte | Singapore.



Enhancing guest experiences and improving operations Swissôtel The Stamford, Singapore

The vision

Swissôtel, part of the Accor group, is committed to delivering an outstanding guest experience and meeting sustainability goals. In Swissôtel The Stamford, a 1,261-room five-star hotel, they needed a system that would help improve staff efficiency and seamlessly integrate with other automated hospitality systems such as HVAC and Oracle Opera.

The solution

The superior guest experience begins upon arrival at the front desk. When guests check in, the air conditioning will be set at an optimum temperature. Sensors in the room detect when guests have arrived, and the lights will turn on. The automated communication between systems maximizes energy efficiency and improves the guest experience, while helping Swissôtel meet sustainability goals. The system also gives staff full visibility of guest requests, reducing unnecessary work while minimizing guest disruption.

Watch the video and see this <u>link</u> for the project case study



Scene management



Environmental monitoring



Energy optimization



Bio-adaptive lighting



Optimized staff efficiency and management effectiveness with complete visibility of hotel operations



Better guest experience with a fully integrated smart room system

"Interact Hospitality has helped us strengthen our brand pillar of enhancing employee satisfaction, which has in turn enhanced guest satisfaction."

Katya Herting, Hotel Manager, Swissôtel The Stamford



Over view of the demonstration - lid

Physical case - Lid

Within the lid is an above view of a typical hotel guest room.

Within the room there are 14 lighting points which can be controlled. These have been grouped into the areas of the room such as bathroom (3), corridor (1), bedroom (8), & balcony (2).

Within the bedroom there are two RGB color changing lighting bars & power outlets are indicated by the red squares.

Between the bedroom and balcony there is a chase bar of lighting to simulate curtains opening / closing.

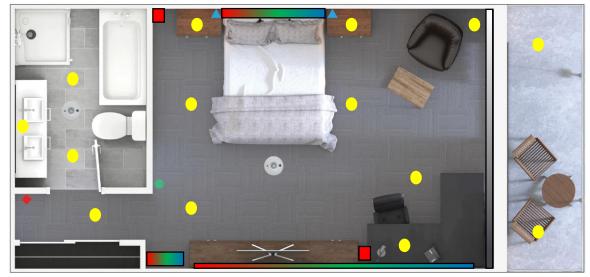
Around the room's floor plan the is also status indicators of room occupancy, doorbell, HVAC fan speed and mode (heating, cooling, & green).

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Over view of the demonstration - lid

Room Booked

/ Doorbell

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HVAC status

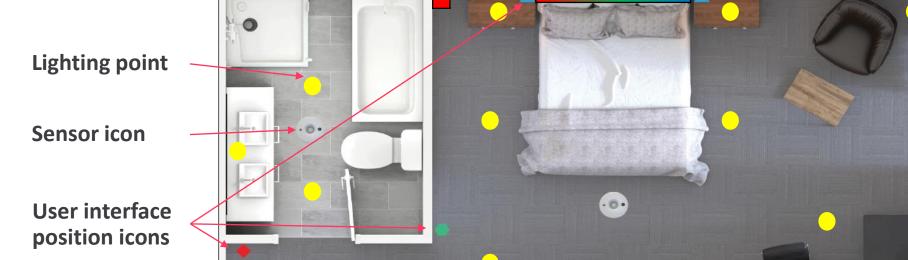


Color changing strip





HVAC fan speed



Curtains simulator

Power outlet interact

Over view of the demonstration - base

Physical case - Base

Within the base is a collection of user interfaces, multi function sensors, corridor room panel, samples of Antumbra finishes, & event / integration inputs

From the base the demonstration of the Interact hospitality functionality can be conducted.



Over view of the demonstration - base

Corridor panel

Antumbra finish samples

DC supply input

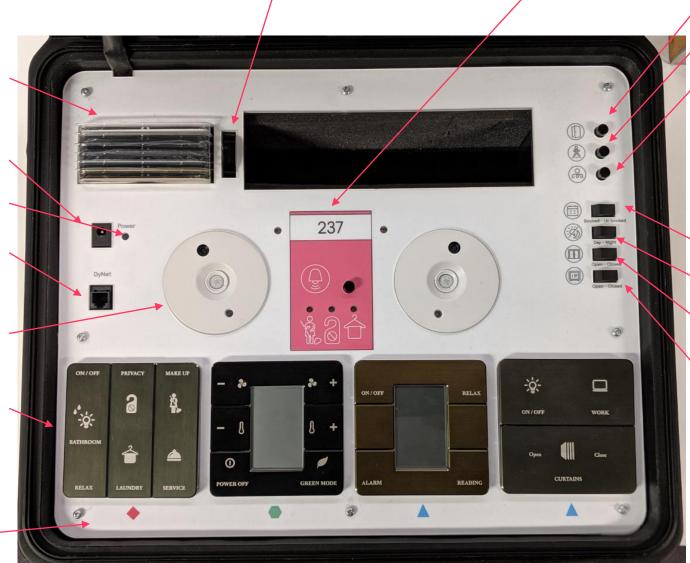
Power indicator

DyNet input

Multi function sensor

Guest Antumbras

Corresponding floor plan icon



Sensor cover disks

Guest room door open event
Guest key input
Staff key input

Room booked / Un booked Day / night mode

Balcony or window open / closed

Safe door open / Closed

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Over view of the demonstration – base – External triggers

Day / Night timing

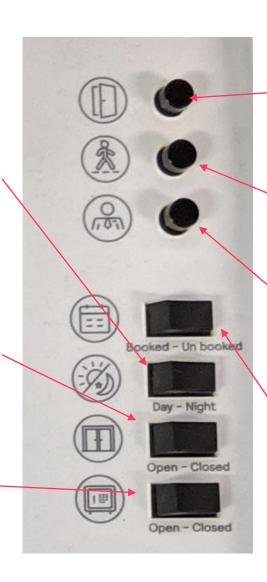
Day time response will turn on the lighting within the room only. Night time will turn on the lighting in the room and balcony.

Balcony / window

When open will disable the HVAC and indicate within the dashboard

Safe

Currently not enable. Intended for future use



Guest room door open event

Triggers off the room occupancy detection functionality see page 21 for more details

Guest Key input

Will turn on the lighting within the room

Staff Key input

Will turn on the lighting within the room and bathroom

Booking status

Used to re-set the demonstration. Setting the room to booked will start the demonstration.

Over view of the demonstration – base – Corridor panel

Room number Will be shown in the Dashboard demonstration Make Up Room Guest has indicated that the room needs to be made up . Will be shown in the Dashboard demonstration

Doorbell trigger

Momentary press for doorbell. The doorbell indicator is shown in the lid. Will be disabled if room is in DND mode.

Do Not Disturb

Guest has set the room to Do Not Disturb mode.
Will be shown in the Dashboard demonstration

Pick Up Laundry

Indicator that guest has laundry to be picked up. Will be shown in the Dashboard demonstration

Over view of the demonstration – base – Sensors

Sensor covers

Most parts of the demonstration its not necessary to have the sensors triggering their actions. During these stages, small disks can be used to cover the PIR to prevent premature or nuisance trigging of their functionality.

Bathroom sensor

Primary used as a bathroom sensor it will also become anti stumble sensor when the "All Off" is selected



Sensor enabled indicators

For the detecting occupancy function its necessary to show that the sensors have been disabled.

Room Sensor

Primary used as a room sensor it will also become an anti stumble sensor when the "all off" is selected

Day light sensor

The devices have daylight sensors as standard but are disabled for this demonstration. They can be enabled for a project if required.

Over view of the demonstration – base – Antumbra finish samples and power supply

Power supply storage

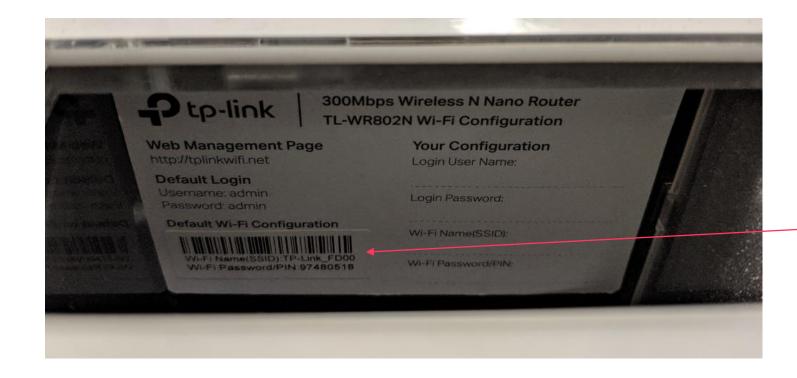
The case is supplied with a 100 – 240VAC -> 15VDC power supply. A range of different international plugs are supplied.



Antumbra sample storage

Six Antumbra finish samples can be stored. Supplied finishes are Prestige, Gold, Aluminum, Magnesium, Silver, & White in two button form. Other finishes and button types examples are in the base of the

Over view of the demonstration – base – Wi-Fi details



Wi-Fi rougher details

Each case has a Wi-Fi router built for Dashboard demonstrations & smart device app control.

Details of the log in can be found hidden inside the Antumbra samples storage. Remove all the Antumbra samples to see the details of the router inside.

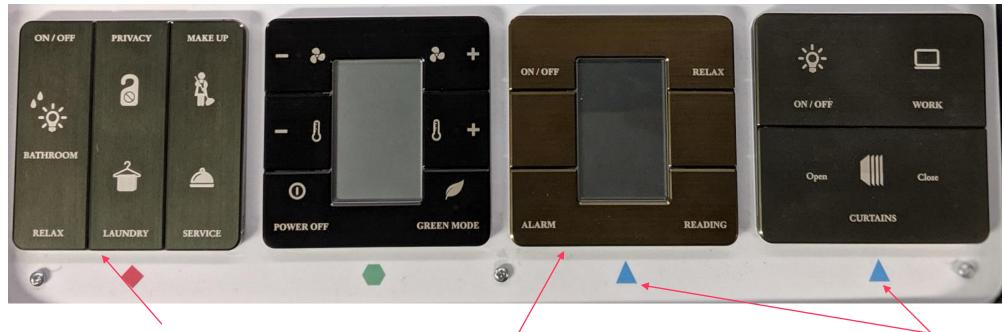
Over view of the demonstration – base – user interfaces

HVAC

- Display current temp
- Adjust setpoint and fan speed
- Feed back on HVAC status (Green mode or balcony)

Room control

- Master On / Off
- Work scene
- Curtains open / close



Room status and bathroom

- Setting of the room status (DND, MUR, PUL)
- Bathroom lighting on / off
- Relax scene

Wake up control

- Setting of the wake-up lighting
- Relax & Reading scene

Floor plan panel icons

The same icons can be found on the room floor plan to indicate their physical position within the room interact



There is a required order that the case needs to be demonstrated to get the maxim effect of the Interact Hospitality functionality.

There are two demonstrations that can be given. The first is a standalone with just the case and then having it connected to the Interact Hospitality dashboard.

Park Hyatt - Sydney

Managing all public area lighting

Room functionality

For simple demonstration of the systems functionality the case can be demonstrated just on its own.

This will allow the presenter to demonstrate the follow functionality.

Beginning:

- Guest or Staff entry responses
- Day or nighttime entry responses

In room functionality:

- Room status changes
- HVAC settings
- Lighting scene select
- Wake up setting
- Curtains control
- Master off
- Anti stumble detection



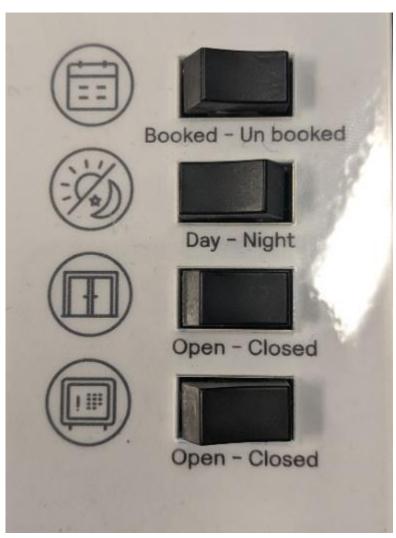
Initial set up

The case is pre-programed with a set of conditional responses that will be found within an Interact Hotel room.

Do not power up the case until it has been set to its start position through the following steps.

All the toggle switches are set to the following

- 1. Un-booked
- 2. Day
- 3. Closed
- 4. Closed



Initial set up

Place the sensor cover disks over the PIR sensors to stop the case from false triggering while powering up.

The case can now be powered up indicated by the Green 'Power" LED and then presenter should wait ~10 seconds while the case loads its configuration. A few different LED in the lid may come on and after 10 seconds all the lid lighting should turn off. If this did not happen, then toggle the 'Booked – Un Booked' switch once. Make sure the switch is back in the Un booked position.

Its best to perform this sequence before the audience has entered the room or presentation has started.

The Room 'Booked - Un Booked' can be used to reset the entire demonstration if needed at any time. To do this simply toggle the switched to 'Booked' then back to 'Un-booked' and the case demonstration will be re set.



Beginning – Room unbooked -> Room booked

If followed correctly then all the lighting in the lid should be off

Now toggle the 1st switched from 'Un booked' to 'Booked'. The case should respond with the lighting now looking like this.

This is to show that the room is booked from the icon at the top. The power outlets will now be enabled and are shown as two red squares.





System response to Staff / Guest & Day / Night

The first part of the demonstration is to show how the system can have different responses between staff and guest entry as well combined with day or nighttime mode.

This allows the system to have four different responses depending on who is entering the room and when.

The actual responses in this demonstration are there to show differences but they could involve just about any element in the room from the blinds to additional lighting groups.



System response to Guest / Staff & Day / Night

Demonstrating daytime staff entry:

- 1. Press the staff key entry
- 2. Press the door open
- 3. Remove the bathroom sensor (left) cover
- 4. Remove the room sensor (right) cover

This will turn on all bathroom lighting, corridor, room lighting, floor lamp, & desk lamp.





System response to Guest / Staff & Day / Night

Demonstrating nighttime staff entry:

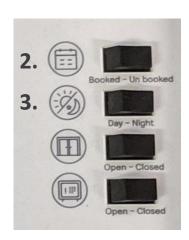
Re-set the demonstration:

- 1. Replace the sensor covers.
- 2. toggling the room 'Booked Un Booked' switch.
- 3. Set to 'Day Night' switch to 'Night'

Repeat the previous steps.

- 1. Press the staff key entry
- 2. Press the door open
- 3. Remove the bathroom sensor (left) cover
- 4. Remove the room sensor (right) cover

This will turn on all bathroom lighting, corridor, room, floor lamp, desk lamp, & additionally the balcony lights.







System response to Guest / Staff & Day / Night

Demonstrating nighttime guest entry:

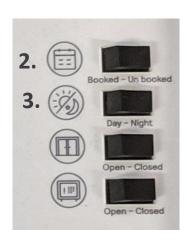
Re-set the demonstration:

- 1. Replace the sensor covers.
- 2. toggling the room 'Booked Un Booked' switch.
- 3. Set to 'Day Night' switch to 'Night'

Repeat the previous steps.

- 1. Press the guest key entry
- 2. Press the door open
- 3. Remove the bathroom sensor (left) cover
- 4. Remove the room sensor (right) cover

This will turn on bathroom mirror, corridor, room, floor lamp, desk lamp, & additionally the balcony lights.







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System response to Guest / Staff & Day / Night

Demonstrating daytime guest entry:

Re-set the demonstration:

- 1. Replace the sensor covers.
- 2. toggling the room 'Booked Un Booked' switch.
- 3. Set to 'Day Night' switch to 'Day'

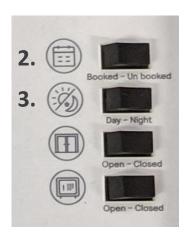
Repeat the previous steps.

- 1. Press the guest key entry
- 2. Press the door open

24

- 3. Remove the bathroom sensor (left) cover
- 4. Remove the room sensor (right) cover

This will turn on bathroom mirror, corridor, room, floor lamp, & desk lamp.







System response to Guest / Staff & Day / Night

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GUEST

ST





DAY

Q

(30) 110 HOO HOOF (140)





In room functionality

Now the demonstration has reached the part that a guest would be within the room and interacting with the following functions.

- Room status changes
- HVAC
- Lighting scenes
- Wake up settings
- Curtains control



In room functionality – Room status overview

Demonstrating Room Status changes:

When first entering the room the example corridor panel will be clear of any status indicators.





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In room functionality – Room status changes

A short press of the button labeled 'PRIVACY' will turn on the corridor panel's middle indicator to show that the room is in DND status. If the 'PRIVACY' button is short pressed again, this will clear the status.

This will override and clear all other statues messages and disable the doorbell.

A short press of the button labeled 'MAKE UP' will turn on the corridor panel's left indicator to show that the room is in MUR status. If the 'MAKE UP' button is short pressed again, this will clear the status.

This will override DND status but can be used in conjunction with 'LAUNDRY'

A short press of the button labeled 'LAUNDRY' will turn on the corridor panel's right indicator to show that the room has laundry to be picked up. If the 'LAUNDRY' button is short pressed again, this will clear the status.

This will override DND status but can be used in conjunction with 'MAKE UP'













In room functionality - HVAC - Overview

Demonstrating Room HVAC changes:

The HVAC system is shown from the Antumbra Display in five different modes of 'Green Mode', 'Operating mode', 'Power off', & Balcony Door open'

In the beginning of the demonstration the HVAC system will be shown in Green mode. Pressing any button on the Antumbra thermostat will revert the system to Operational mode.

Once in operational mode the guest can now make changes to the setpoint or fan speed.

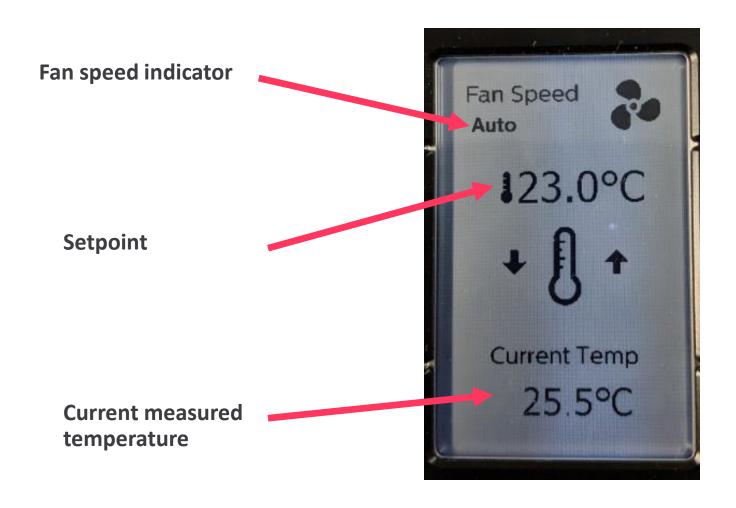




In room functionality - HVAC — Button functions



In room functionality - HVAC — Display information



The actual measured temperature will not be very accurate due to conditions within the case and the way the panel is mounted flat.

In room functionality - HVAC - Fan speed

Demonstrating Room HVAC changes: Fan speed

Using the top two buttons of the Antumbra thermostat will change the fan speed. The fan speed is indicated by a dynamic icon in the top left corner of the display.

At the start of the demonstration the fan will be set to Auto.

Pressing the top right button to increase the fan speed which will be indicated by filling circle icons.

There is a panel in the lid of the case which will be synchronized with the display. This is to show that fan speed is controlled from the Antumbra thermostat and networked to a HVAC system

















In room functionality - HVAC- Setpoint

Demonstrating Room HVAC changes: Setpoint

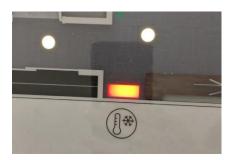
When the set point is 23.0°C or above then the HVAC indicator will turn red to show that the system is in heating mode.

When the set point is 22.5°C or below then HVAC indicator will turn blue to show that the system is in cooling mode.

The thermostat top set point is 26.0°C and lowest set point 21.0°C.

If the HVAC is set to green mode, then then HVAC indicator will turn Green to show that the system is in Green mode

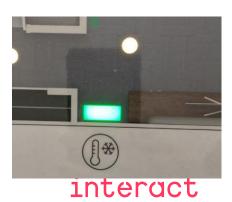










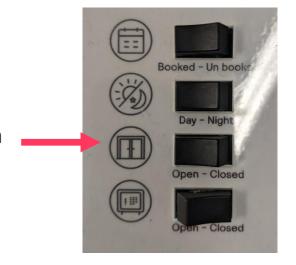


In room functionality- HVAC- Status

When Powering off the HVAC the display will show in its display 'Power Off' While in power off mode the fan speed icons in the lid will all turn off. Any button will bring the HVAC system back on to the default setting.



Showing the HVAC system response to balcony door or room window being open toggle the third switch from closed to open and the display will change its image to the example shown.





In room functionality - lighting scenes

In the demonstration when a guest first enters the room at daytime the floor plan should look like the example.

From here different lighting scenes 'Work', Relax, Reading, & On / Off can be selected.

The scenes are intended to show how a single button can trigger multiple lighting groups as well color changing from a single button press. This allows for the guest to take control of the room without having to operate one button per lighting group.

The bathroom 'ON/OFF' button will toggle all the lighting in the bathroom on and off to show an example of one touch toggle control.

The 'Relax' scene can be triggered from two button to demonstrate that the LED indicators will track between two different buttons. This means that when the 'Relax' scene is selected on one button the other will automatically sync to show that this is the scene selected.

The scenes can be triggered in any order but there is some logic happening to set up the anti stubble detection feature. This will become important in the demonstration of this feature.



In room functionality- light scenes

Pressing the 'Work' button will set the color lighting to Green and turn on a selection of lighting on.

The 'ON / OFF' button will set the color lighting to a light blue turn on all lighting in the case. A second press will turn all the lighting off & set the room status to DND







In room functionality- light scenes

The 'RELAX' scene will turn off most of the room lighting and set the color lighting to a warm.

The 'READING' scene will turn off the color lighting, turn on lighting on desks, and turn off other lighting.







In room functionality- light scenes

From the bathroom panel the 'ON / OFF' button will on the first press turn all the bathroom lighting on and then a second press will turn them all off.

The Relax button will trigger the same scene as described before.







In room functionality - Wake up alarm

In the beginning of the demonstrate the wake-up alarm Antumbra will be showing an example of a hotel logo. 1

Pressing the bottom left button will then take the guest to the alarm setting page. From here the guest can then set the time by using the toggle up and down buttons for hours and minutes they wish for the alarm to trigger. 2

Once they have selected a time to wake up the guest then selects the set button on the 3.

The panel will return to its home page and now show in place of the hotel logo the time that the alarm will trigger.

4

No actual action will take place as this is a demonstration of how the guest can set the alarm. The alarm could trigger multiple functions such as turning on the lighting to a cool color, opening the blinds, and ringing the doorbell.









In room functionality- Curtains control

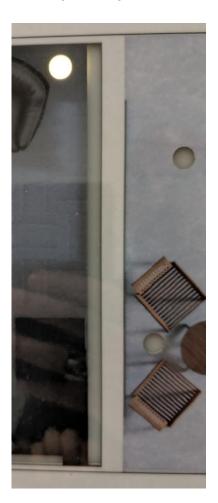
At any time in the presentation the curtain control can be demonstrated. The intention is that the curtains are represented by a light bar across the window that will progressively turn on from top to bottom simulating the curtains opening.

A short press on the open button will start the sequence to show the blind fully open. A second press of the open button can stop the sequence at any stage.

A short press of the Close button will send the sequence in the opposite direction to show the blind fully closed. A second short press of the close button will stop the sequence at any stage



Completely closed



Half open



Completely open



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Master off and Anti Stumble detection

As the master off sequence is linked to the anti stumble detection its important to show them together.

Before demonstrating this feature make sure that the sensor cover disks are in place over the sensors to prevent premature triggering.



Master off and Anti Stumble detection

Either panel with the 'ON / OFF' button could be used to trigger the all off function. As there have been many scene messages during the demonstration, the first press might turn all the lighting on, a second press will then turn all the lighting off as required to demonstrate the anti stumble feature.







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Master off and Anti Stumble detection

Once all the lighting in the room has turned off the Do Not Disturbed indication automatically turns on and the sensors now change their functionality for the Anti Stumble feature.

Remove the room sensor (right) cover will now trigger pathways lighting to the bathroom and some light in the bathroom.

Remove the bathroom sensor (left) for the system to then detect a guest in the bathroom.

To simulate the guest then returning to bed, first replace the bathroom sensor (left) cover and then the room sensor (right). After 5 seconds the lighting in the bathroom will automatically turn off then the room pathway lighting will turn off.

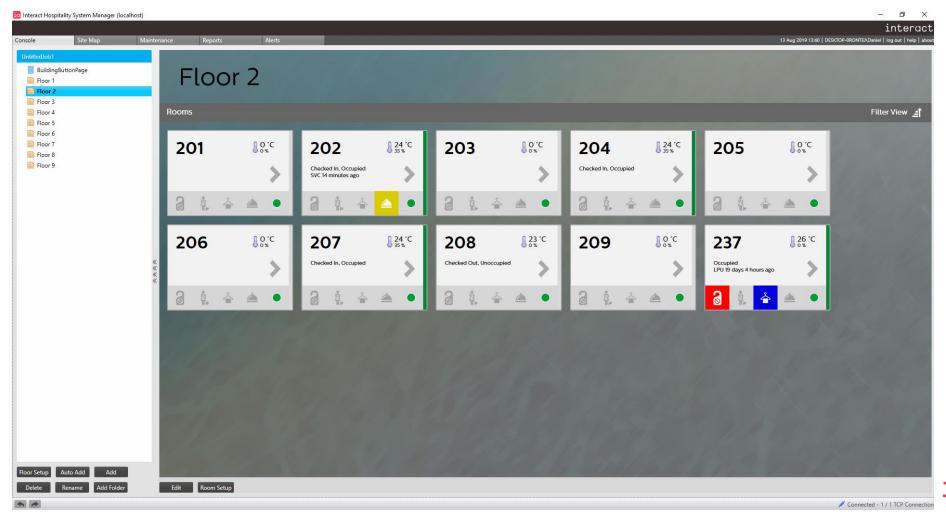
In a project this timing is a variable that can be adjusted to the client's requirements.





Dashboard overview

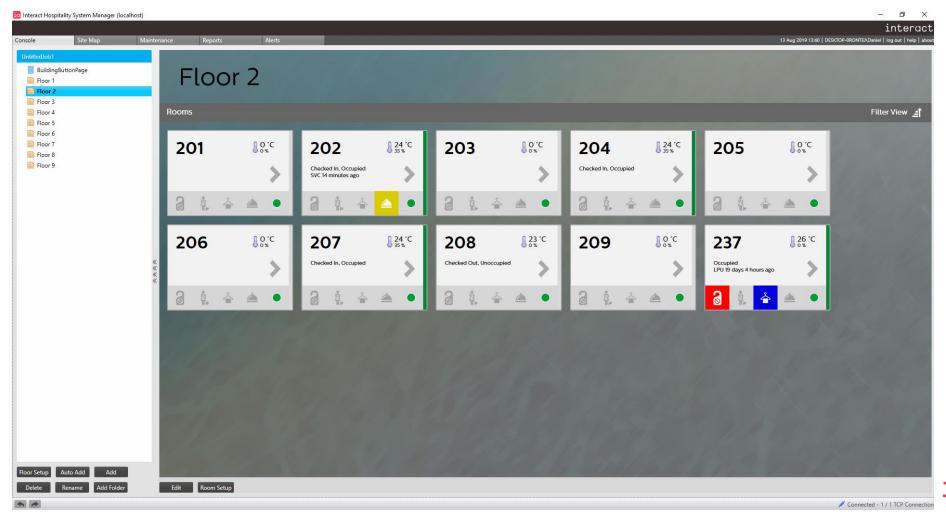
The Interact Hospitality dashboard is an extension of the existing Dynalite SystemManager software. This allows for one software package to run the entire hotel site from the back of house, front of house, ball rooms, lighting schedules, monitor / manage all hotel's lighting, as well provided an intuitive dashboard for the guest rooms status.





Dashboard overview

The dashboard has been designed with guest and facility management staff in mind. Different features and functions can be shown depending on the staffs log in, so they are only presented with the information and control they are authorized for.





Dashboard installation

The dashboard does require a full installation of the SystemManager and SystemBuilder. Applying for a software license from support.controls@signify.com as well support for installing the software and connecting to the demo case.





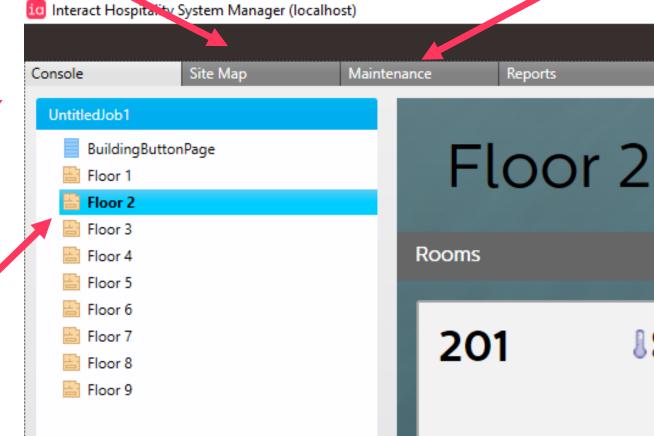
Dashboard Introduction – Navigation

Sitemap shows the different front or back of house floor plans

Maintenance shows all an overview of the systems status facility staff need to be aware of.

Tabs displaying the different functionality of SystemManager. Interact Hospitality dashboard is in the Console tab.

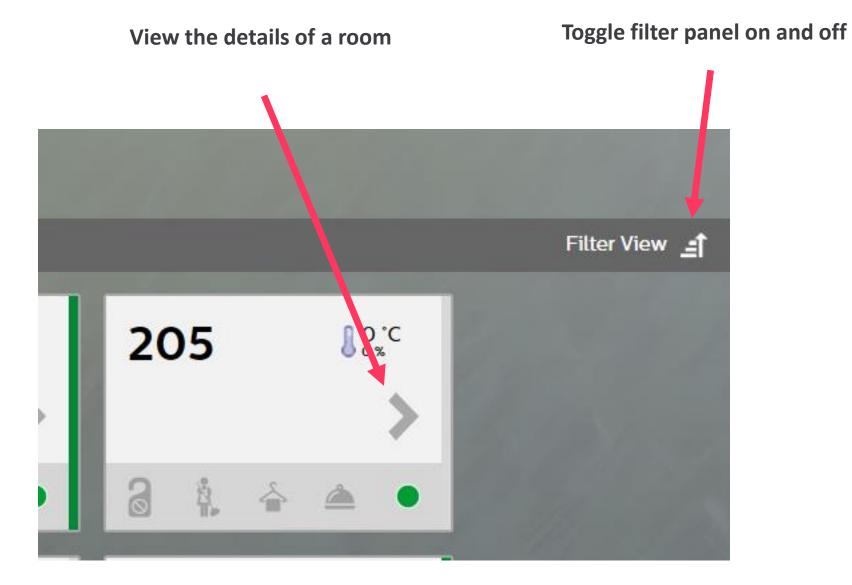
From here the staff can select which floor they want to view or view all floor within the hotel. The sales demonstration is always done on level 2.



TIICEI UCC

Alerts

Dashboard Introduction – Navigation



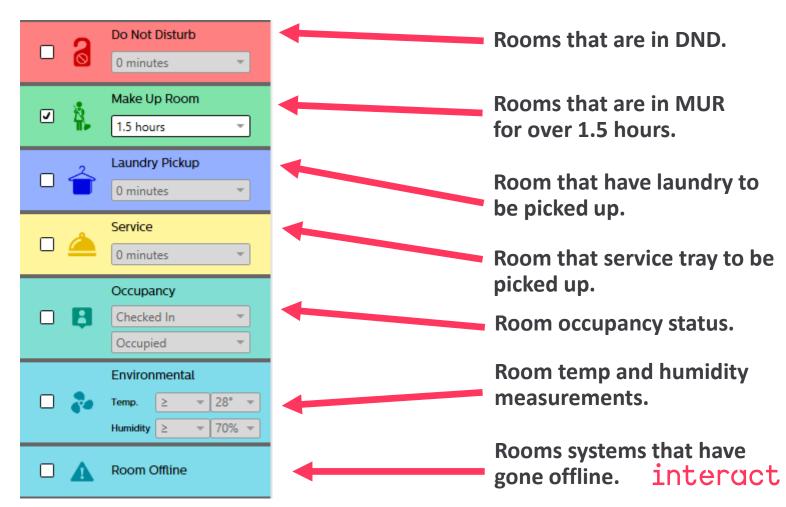
Dashboard Introduction – Room tile quick info

The room quick reference tile has been designed to give guest servicing staff a quick reference of the room's status. Different functions are given different color codes so the requirements can quickly be seen. If required escalating alerts can be

generated to direct staff. Room's current 26 °C 237 temperature and humidity **Room number** Occupied Go into room MUR 1 minute ago controls and detail **Quick history** monitoring of room events **Green for Room** occupancy, Grey for Un occupied. **Do Not Disturb** Make Up Room Pick Up Laundry Pick Up Tray **Room System status** interact

Dashboard Introduction – Room tile filter

To help staff manage guest's requirements a filter can be used to not only search for which rooms in a particular status but also the length of time rooms have been is such a status. The example below would show only rooms that are in Make Up Room for over 1.5 hours.



Dashboard demonstration – Status filters

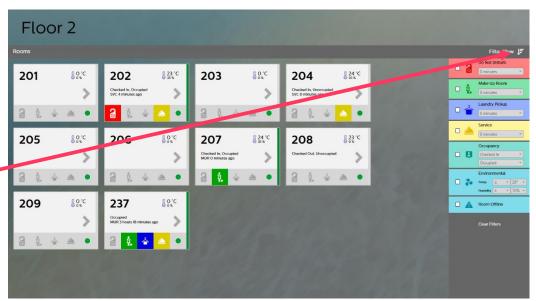
The demonstration simulates typical hotel network messages so that the room status filter can be shown.

Begin by opening the filter panel on the top right side of the display. This will open the filter page and allow for different search criteria to be selected.

Selecting one of the services will then filter out the rooms that are not in this status. In this example Pick up Tray has been selected and now the dashboard is only showing rooms which require this service.

Combination or amount of time can be combined if required.

As the demonstration is creating the network messages this may change the rooms which is part of showing a live hotel in action.



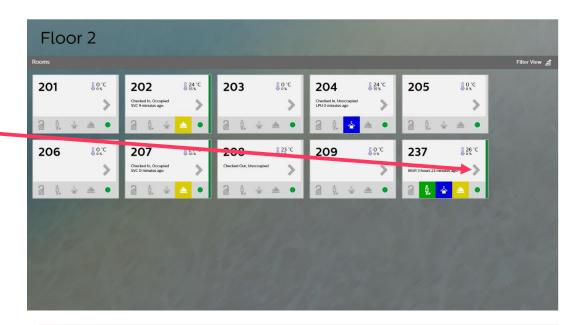


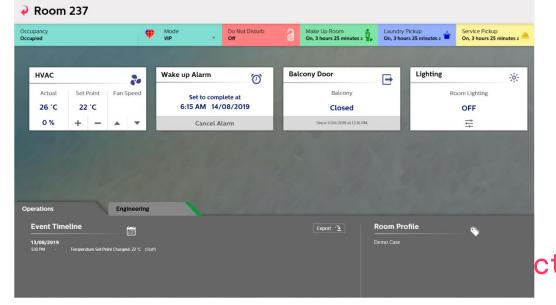
Dashboard demonstration – Room monitor and manage

Click the filter toggle again to now hide this panel.

Now select room 237 to see the details of this room.

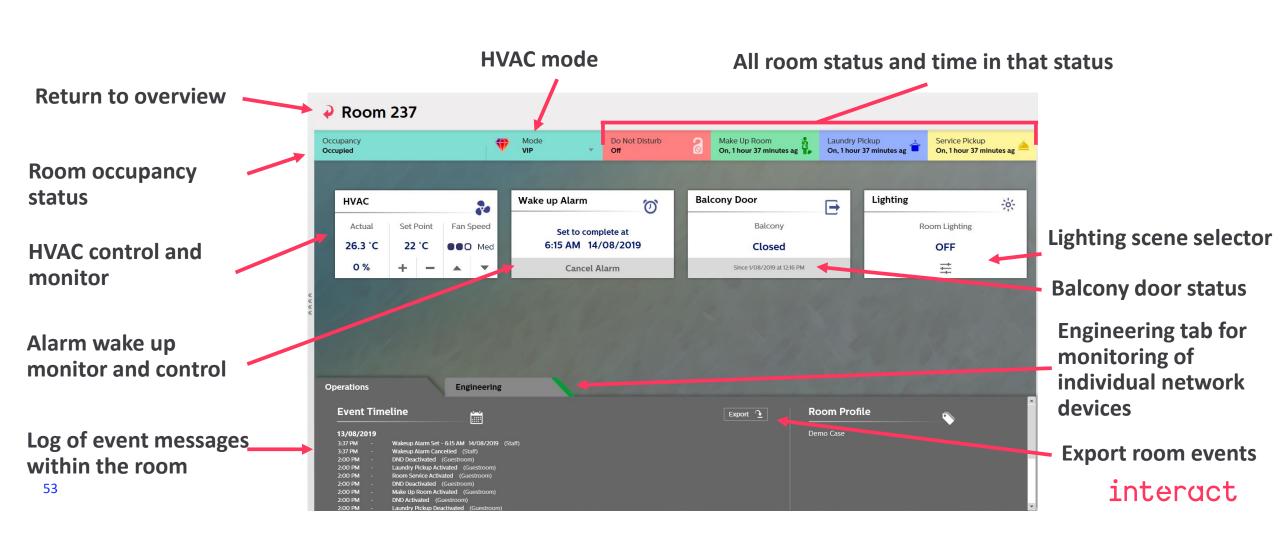
This is the page you should arrive at. Now you can begin the software demonstration with the demo case





Dashboard Introduction – Room control and detailed monitoring

From the room tile, clicking on the arrow will take hotel staff to a detailed view of a rooms control and monitoring information. From here staff can assist a guest with HVAC, Wake up alarm, Balcony door or window status, Lighting scene setting. There is also a detailed list of the network messages from the rooms and a report of the network devices health status.

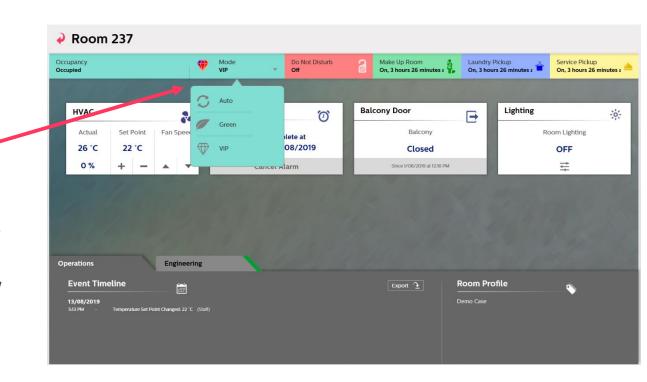


Dashboard demonstration – Room monitor and manage

Status information

At the top of the room window there is the occupancy status, HVAC mode, and the other room service status shown. The dashboard is also showing how long the different service status are been active.

From here a different HVAC mode can be selected. Selecting the Green mode will then be shown in the Antumbra display. Moving the HVAC back to any other mode will show the Antumbra display in normal operational mode.







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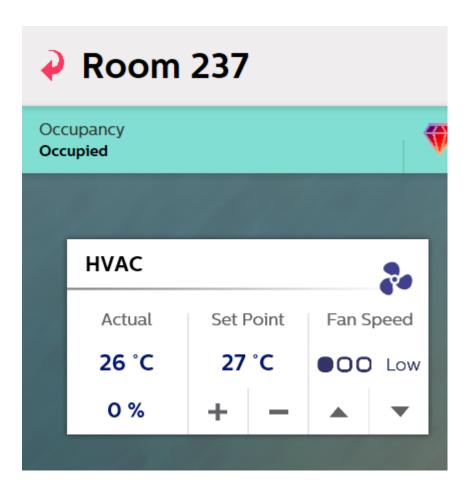
Dashboard demonstration – Room monitor and manage

HVAC reporting and override

From the HVAC tile the dashboard will display the current point and fan speed as well the actual measured temp from the Antumbra thermostat.

From the dashboard you can adjust the setpoint and fan speed and the Antumbra in the demo case will follow the settings.

Changes in the Antumbra thermostat can be made and the dashboard will be in sync.



Dashboard demonstration – Room monitor and manage

Wake up Alarm monitor and manage

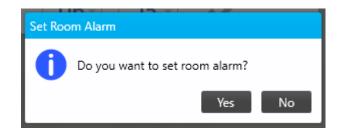
The wake up alarm tile will show if there is a current alarm and when it is going to be triggered.

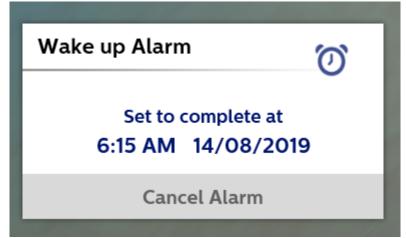
From here you can cancel the current alarm or if its not set create a new one.

Click on the hour and minute pull downs and select the time for the alarm.

A pop up will prompt to make sure this is required. Once yes is clicked it will push the change to the Antumbra within the demo box.







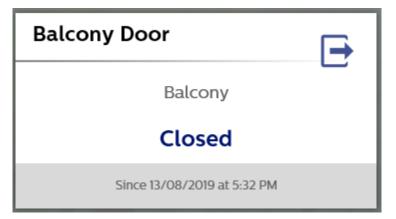
Dashboard demonstration – Room monitor and manage

Balcony Door monitoring

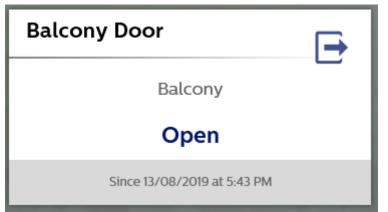
From the room details the balcony door status can be reported to hotel staff.

By toggling the balcony door switch in the demo case from closed to open will change the status in the dashboard.

A time will be given of when the balcony door changed status so that staff are better informed of the activity within the room.









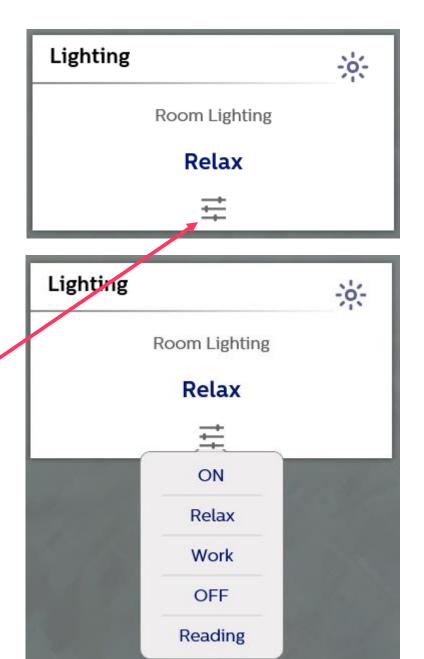
Dashboard demonstration – Room monitor and manage

Monitoring and changing lighting scenes

From the lighting tile the dashboard will show what the current lighting scene is within the room.

By clicking on the slider icon a selection of different lighting scenes will be shown.

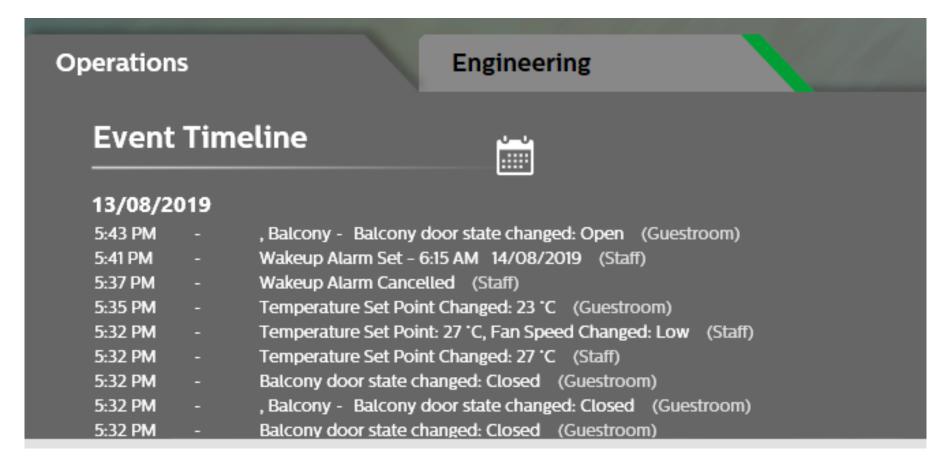
Any lighting scene selected will then be changed in the demo case.



Dashboard demonstration – Room monitor and manage

Timeline reporting

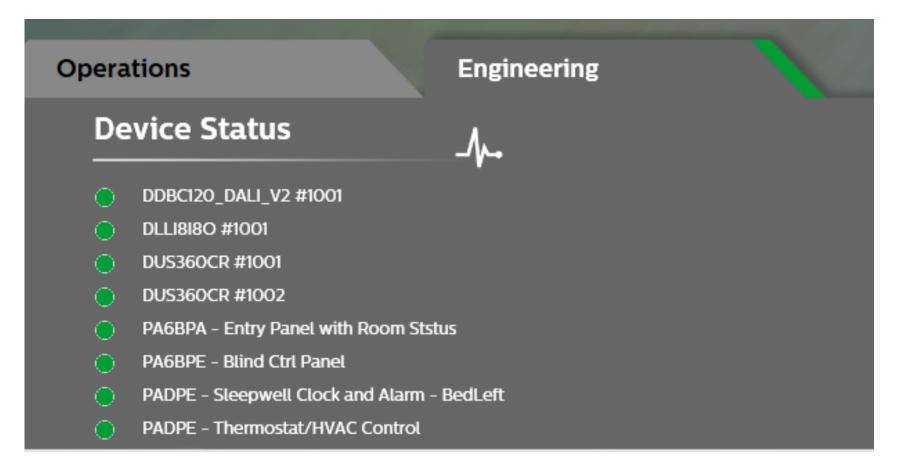
Its important to note that the dashboard has captured all the network messages and their origin in the event timeline. This is to give hotel staff clear communication of the activity within the room when servicing a guest's requests.



Dashboard demonstration – Room monitor and manage

Engineering tab

If the room has reported an issue on its first tile, then facility management can use the dashboard to see exactly which device has gone offline to service the room as quickly as possible while not be disruptive to the guest with multiple entrances to the room



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