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FAYE WONG IN CONCERT

NETWORKED JUSTICE

**CREATING
SALT HAUS STUDIOS**

**NAMM AND ISE
REVIEWED**



MOVING HOME

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Singapore: MICA (P) 124/05/2016
PPS 1604/05/2013(022953)

PROBLEM?

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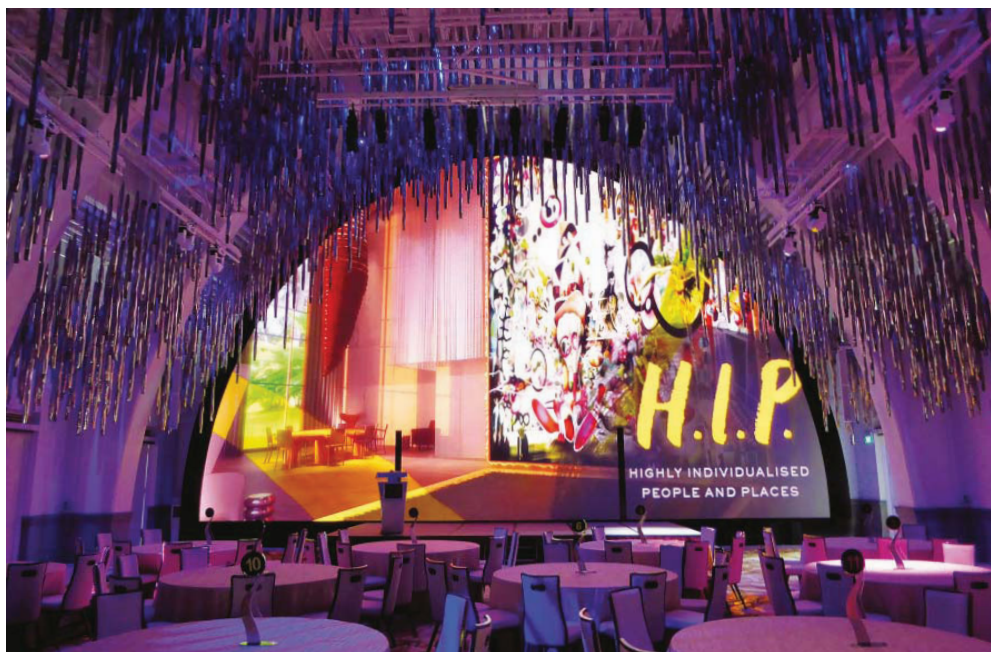
4-7 April 2017
Messe Frankfurt, DE

3.1 F03



Military precision

Concept Systems Technologies took responsibility for the A/V systems at the JW Marriott Hotel Singapore South Beach. **Richard Lawn** takes a tour



The addition of South Beach's twin towers adds another unique persona to the Singapore skyline; (Above): The Grand Ballroom dazzles guests with its 11,520 lights suspended in aluminium tubes and a rear wall SMD 3-in-1 LED panel measuring 15.85m x 10.46m

SHARING THE SAME NAME AS THE FIRST SECTION OF MIAMI

Beach to be developed in 1910, South Beach development was planned a century later as a multipurpose complex comprising offices, shops, residences and the JW Marriott Hotel Singapore South Beach. It has been christened as a result of its location at the southern tip of Beach Road on prime real estate between the Raffles complex and Suntec City. The ultra-modern façade of the 34-storey and 45-storey towers is a little misleading as it incorporates four conservation buildings including the former Non-Commissioned Officers' Club building and part of the former Beach Road Camp.

When the Urban Redevelopment Authority showcased the Beach Road site in 2006 at the 'Marché international des professionnels de l'immobilier' Asia, it was made clear that the conserved buildings on the site had to enhance the uniqueness of the development. The winning design was led by a joint consortium of City Developments Limited (CDL) and IOI Properties Group showcasing environmentally-friendly green architecture to blend in with Singapore's tropical climate and dynamic urban vista.

The project drew skills from many different companies. French designer Philippe Starck was appointed to breathe new life into the three conserved buildings of the hotel by renovating their interiors. Architectural research consultancy, Studio Lapis, was handed the responsibility to restore key elements of the buildings' architecture and Arup was hired as the civil and structural consultants. The developer, South Beach Consortium, also appointed local architectural agency Aedas together with London-based design consultants Foster and Partners. Closer to the A/V world, Acvicon Acoustic Consultants worked closely with systems integrators Concept Systems Technologies Pte Ltd on the project.

Once the headquarters of the Straits Settlements Volunteer Force, Block 9 is now known as The Grand Ballroom. The main attraction is a stunning light installation consisting of 11,520 lights suspended in aluminium tubes dripping down from a 10m ceiling like icicles. Designed by Philippe Starck, the *Forest Of*



Once the headquarters of the Straits Settlements Volunteer Force, Block 9 is now known as The Grand Ballroom

Lights creates a dramatic and iconic backdrop that is illuminated in different colours for weddings and corporate events.

Competing for star billing with the *Forest of Lights* in Block 9 is an impressive SMD 3-in-1 LED wall covering the expanse of the rear wall. Measuring 15.85m x 10.46m, it comprises of a total of 190 individual interconnected Daktronics 136 x 204 LED screens supported by 12 hoists and was assembled by Daktronics Singapore. Distributed 22-bit video processing produces clear, detailed images with smooth motion reproductions. Fixed Samsung screens in the lobby area receive their signal from the DM-MD 32x32 via Kramer PT-571 and PT-572 HDMI over twisted pair transmitters and receivers respectively.

Feeding these visuals are a total of seven (four in the Ballroom and three in the foyer) Datavideo PTC-120 cameras remotely controlled by an RMC190 controller routed to a Datavideo SE-2800 12-channel video switcher. Together with a Samsung Blu-ray player, three Crestron wall panels providing VGA, HDMI, DMX, audio and USB port inputs make up further inputs to the SE-2800 switcher. A Crestron DM-MD 32x32 digital media (DM) switcher lies at the core delivering uncompressed HD A/V

distribution to the Grand Ballroom over twisted-pair wire. From the DM-MD 32x32 switcher, the camera and wall panel inputs are channelled through Datavideo DAC-9P HDMI to HD-SDI converters, while the Blu-ray player signal is routed through a Kramer FC-46 HDMI audio de-embedder.

The installation of the lighting bars and ceiling-mounted trusses proved to be one of the more formidable challenges for the Concept Systems engineers. 'We seemed to be coordinating the positioning and installation of the two trusses for a very long time with the other contractors and interior designer,' confirms project manager Gerald Fong. 'The existing building is a heritage site and hence needs to be preserved. As such, we were strictly governed as to what we could and couldn't do. There is an approval process for which you have to liaise with structural engineers, for fixing the primary and secondary supports. As a result, we encountered some certification issues.'

Having had its plans approved, a total of 10 Martin MAC 350 moving heads have been suspended on the two trusses running parallel to the lateral walls with a further pair installed centrally onto a truss above the stage. In addition, four ETC soft spot LEDs and zooms provide the ambience for scenery and stage respectively, controlled from an ETC Ion lighting desk. With the integration of a Crestron CP3 control processor, the facility manager has access to all the lighting and A/V parameters on an 8-inch touchscreen.

Perhaps not as challenging as the installed lighting and video systems, Concept Systems was asked to provide a discrete audio solution that would deliver intelligibility and clarity for all 340 seats.

A main FOH system combines L-R wall mounted dual Coda Audio CoRay4i line source column speakers finished in white. The two CoRay 4i's in each column create consistent symmetrical vertical coverage of 24-degrees without interferences between the cabinets. To enhance the lower frequencies, two floor-mounted Coda Audio SC18 dual 18-inch subwoofers providing extended frequency range down to 25Hz (-3dB) have been discretely integrated into the rear wall. Two

Coda Audio Linus10 controller amplifiers provide the power and the DSP for this system.

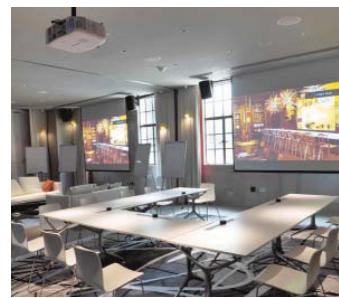
No fewer than 12 channels of Shure ULXS4 wireless microphones handle the entertainment duties for all the functions, for which four U844 antennas ensure extended coverage. An upper rear control room houses the equipment racks including the Yamaha CL3 digital console connected to a Yamaha 32-input Rio 3224D I/O stage box. A portable stage monitoring system combines EV ELX112 speakers, powered by EV Q66 amplifiers and controlled in the analogue domain courtesy of dbx 231S graphic equalisers and 166XS compressor/limiters.

The upper mezzanine area can seat a further 50 guests and as this is largely out of range of the Coda Audio FOH system, two Norton NF cabinets powered by an EV CPS2.4 amplifier are affixed to the ends of the lighting trusses serving as delays for this zone.

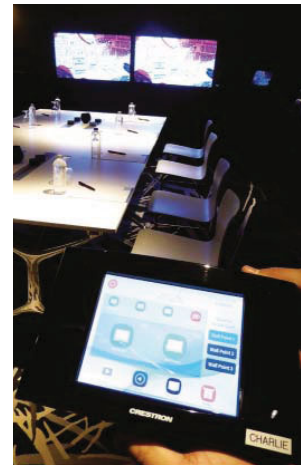
Beyond the Grand Ballroom, 45 EV C8.2 ceiling speakers finished in stainless steel handle BGM duties in the remainder of Block 9. Powered by EV CPS 8.5 amplifiers, the DSP filters, EQ, dynamics and delays in the lobby and pre-function foyer are managed by an EV Netmax N-8000 DSP processor. Sabine Navigator NAV480 system controllers are called upon to split the audio signals between the ceiling speakers, FOH and monitors when required.

In the foyer, a DJ may entertain guests from a deck hosting a Denon DN-X1600 mixer and twin DN-S1200 players. Powered by Norton Audio ND2 amplifiers, Norton Audio NF8 speakers reinforced by dual SB112 subwoofers complete the setup. The addition of an EV DC One with several DSP presets ensures that all pre-events can be catered for, including speeches relying again on a Shure SLX wireless microphone system.

True to its military past, Assembly is the new name given to Block 14, which is a two-storey building that used to have offices for the Malay volunteer regiment. Once again, Concept Systems was called upon to apply its A/V touch in the 15 meeting rooms. In a typical set-up, video conferencing benefits from Samsung 55-inch screens and dual wall-mounted EV ZX190 8-inch speakers powered by a PA2450L amplifier. Four EV C8.2 ceiling speakers powered by a PA1250T amplifier provide 100V line audio for speech and DVD playback. For video playback and VGA presentations, the larger rooms are equipped with Panasonic PT-EZ720 and PT-EZ570 LCD projectors, while the smaller ones use PT 3200 lumens models, firing onto motorised LEV screens. Crestron DMPS-300-C and DMPS-200-C systems are core



(L to R): Racked analogue equipment for the EV ELX112 portable stage monitoring; Panasonic PT-EZ720 and PT-EZ570 LCD projectors, Samsung screens and EV ZX190 8-inch enhance the meeting rooms; The meeting rooms in Block 14 are each equipped with Crestron DMPS-300-C and DMPS-200-C systems for A/V presentation control



to the A/V presentation control and signal routing solution throughout Block 14. Additionally, these systems also incorporate a multimedia matrix switcher, mic mixer, audio DSP and amplifier. Auto-configuring inputs enable plug-and-play compatibility with all the digital and analogue sources, whilst the DigitalMedia and HDBaseT connectivity minimised cabling for interfacing with all the A/V sources, computers and display devices. 'Once again, owing to the unique heritage status of the building, we could not affix wall points to the brick walls and the concrete floor could not receive floor points,' explains Mr Fong.

Block 14 also houses a garage previously used for servicing armoured vehicles and ambulances complete with a preserved vehicle maintenance pit. This has now been refurbished as the Court Martial Bar, acknowledging the former military court housed above on the second level. The converted garage is now equipped with eight EV C8.2 and four 10.1 ceiling speaker models, powered by a Bosch Plena 4P 220 amplifier.

Upon arriving at the JW Marriott Hotel Singapore South Beach, guests are welcomed by a 7m x 6.5m videowall. This futuristic atmosphere is consistent throughout the 634-room, five-star hotel. The hotel occupies the first 21 floors of the taller South Tower, while the levels up to the 45th floor are residential. An extensive BGM system has been added to the first four floors incorporating 89 EV C8.2, eight C4.2T and 17 C6.2T speakers all of which can be controlled via a Crestron CP3 system utilising

TSW740 touchscreens on each level. An 18th level gymnasium also draws upon 15 C8.2 ceiling speakers.

Once used as a place where weapons were kept, the oldest heritage building on the property has been turned into a hip lifestyle spot. South Beach Quarter, formerly known as Block 1 houses The Armoury as one of four F&B outlets. The BGM serving the restaurants on level two consists of 57 C8.2 speakers together with six Evid 6.2T and 14 Evid 4.2T wall mounted cabinets.

The NCO Club is a three storey building also providing a wealth of F&B options. The Jazz Bar on level one is the old Officers' Mess, which has now been updated with a self-powered sound reinforcement system combining four EV TX1122 speakers and dual EV TX2181 subwoofers, together with dual EV ELX 112 speakers. Like the Grand Ballroom, EV ELX112M monitors have been added, powered by EV Q66 amplifiers and configured by a dbx233 equaliser and 166S compressor/limiter. A Sabine NAV480 Navigator processor, Yamaha MG24/14 analogue console and Shure SLX24 wireless microphone system boosted by a UA845 antenna rounds up the audio upgrade. For video duties, Blu-ray, IPTV and VGA sources are fed through a Kramer VS44H 4x4 HDMI matrix to a Panasonic PT-EZ770 projector and 2.44m x 1.37m LAV motorised screen.

Across the site in Podium Block 2, Media Bar features innovative glass countertop screens equipped with streamed live TV. Here 24 32-inch table-top screens have been inserted into the customised aluminium framed tables, while two 32-inch and four 48-inch screens have been mounted to the walls, should diners prefer to watch their sports, news or soap operas by more traditional means. A Crestron DM-MD 32x32 control accepts multiple Blu-ray and IPTV feeds, all of which can be controlled via Wi-Fi from an 8-inch touchscreen courtesy of the Crestron CP3 processor.

The cabling has been sensitively routed through the floor to the underside of the table and up through the legs. 'These were custom designed and we had to route the cables from the ELVs according to the plans provided by the general contractor,' explains Mr Fong. 'Luckily, as this block is new build, we didn't have to follow any Heritage preservation approvals. The conduits were cast into setting concrete at the exact level and had to be, precise down to the millimetre. In order to execute the setting of the screens into the tables, we had to co-ordinate our activities precisely with the interior designer.'

The BGM system combines EV C8.2 and 10.1 ceiling speaker models, powered by three EV PA2250 amplifiers and processed via a Bosch Plena PLM8M8.

Above in Ebb6, the level six sky garden bar, a BGM system comprises 14 outdoor TIC653 enclosures, dual C8.2 ceiling speakers and five wall-mounted Evid 6.2T models all powered by a Bosch Plena PLM 8M8 amplifier. Three 65-inch HD screens have been added, whilst a Crestron RMC3 6-inch touchscreen offers full A/V control.

Ultimately, the two-year project was executed with military precision, for which all the Heritage sensitivities and interior designer requests were successfully negotiated. No strangers to the hospitality business in Singapore, its mission accomplished for Concept Systems on JW Marriott Hotel Singapore South Beach.

www.concept-systems.com.sg



12 channels of Shure ULXS4 wireless microphones are boosted by four U844 antennas throughout the venue

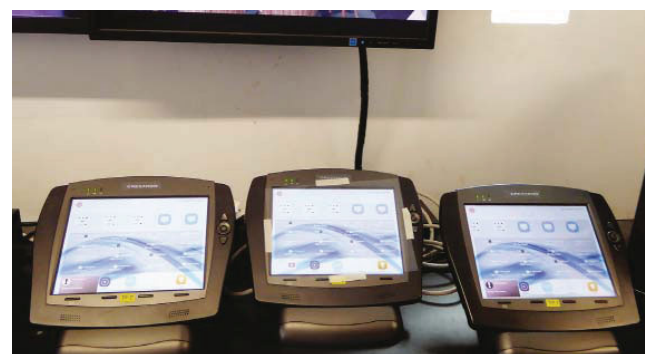


The Ballroom's FOH system combines L-R wall mounted dual Coda Audio CoRay4i line source column speakers with SC18 dual 18-inch subwoofers



(Above): Media Bar's diners can be easily distracted by the many 32-inch glass countertop screens that stream live TV

(Right): A Yamaha CL3 digital console can be controlled from an iPad via the Stagemix App



With the integration of a Crestron CP3 control processor, lighting and A/V parameters can be accessed from an 8-inch touchscreen