



# MOSCOW

# MOSCOW HOUSE OF MUSIC



MOSCOW, RUSSIA  
EUROPE/MIDDLE EAST/AFRICA

The Moscow International Performing Arts Centre - also known in its translated form as Moscow House of Music (MHM) - first opened in 2002 with the National Philharmonic of Russia orchestra making its debut at the venue under musical direction from conductor, Vladimir Spivakov. It was designed by principal architects, Vladilen Krasilnikov and Yuri Gnedovsky.

Svetlanov Hall - taking its name in honour of legendary conductor Evgeny Svetlanov - is the main venue within the complex and can seat up to 1,735 people. The space was always designed to be multi-functional and as such it needs to be equipped with the latest technology at all times to ensure flexibility. With this in mind, the Svetlanov Hall has recently upgraded its sound system to a Meyer Sound Constellation system. It is one of the first venues in Russia to be kitted out with a Constellation system, and it features a reinforcement system based around MICA line array cabinets. With an architectural reverberation time of 1.7 seconds, the hall had less than perfect early reflections for unamplified music performance. With the new Constellation system, Svetlanov Hall can provide the correct acoustics for classical, pop and jazz performances, some with the integration of the magnificent 5,500-pipe organ, the largest in Russia.

"Constellation makes Svetlanov Hall one of the best in Russia for all kinds of classical music," said Pavel Kravchun, Associate Professor of Acoustics at Moscow Lomonosov State University, curator of organs for the Performing Arts Center, and an accomplished

organist himself. "When I played the organ in the improved acoustics for the first time, I enjoyed the long, cathedral-like reverberations. Constellation makes the organ sound richer, and better balanced."

The new electroacoustic system was designed by Meyer Sound, however its Russian distributor, Digital Sound Systems (DSS) adapted the design in accordance with Russian Federation regulations. DSS also completed the construction design, cables ways, winches localisation, suspension of line arrays and subwoofers and of course, it made the system installation.

Svetlanov Hall's Constellation system employs a total of 137 compact self-powered loudspeakers -incorporating 40 Meyer Sound UP-4XP loudspeakers, 73 Meyer Sound MM-4XP self-powered loudspeakers and 24 Meyer Sound Stella-8C installation loudspeakers - the majority of which are spaced overhead and around the perimeter of the venue. Although 16 of the Stella-8C installation loudspeakers form a unique feature - 'active acoustical canopy' - where the loudspeakers are suspended inside colour-matched cylindrical enclosures, which supply critical early reflections for the stage and front seating areas. The Constellation system also features 10 Meyer Sound UMS-SM subwoofers, which are crucial for properly enhancing the sound of the organ.

At the heart of the Constellation system are four Meyer Sound D-Mitri DVRAS digital processors which host the patented VRAS algorithms. The complete D-Mitri system comprises a total of 14 frames, and 48 Meyer Sound MIC-CARD miniature microphones ►



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are precisely placed around the hall to pick up the room's physical response.

In addition to the Constellation system, the reinforcement PA has been upgraded from Meyer Sound M'elodie line arrays to Meyer Sound MICA line arrays. "The system remains in the same weight parameters as the previous one, which is very important for the hall constructions. All loudspeakers and frames painted in the custom colour chosen by the customer and fits perfectly into the interior of the hall. The combination of good audio and other parameters are very positive impact on the atmosphere of the concerts held in the hall," explained Marchenko Vladimir, CEO of DSS.

The reinforcement system comprises two hangs, one left and right of the stage each made up of 10 Meyer Sound MICA line array cabinets flown under dual Meyer Sound 600-HP subwoofers. There sit alongside six Meyer Sound UPQ-1P loudspeakers to cover the balcony areas behind the arrays, eight Meyer Sound M1D for front fills and eight Meyer Sound 700-HP subwoofers groundstacked to extend the low frequencies. "All the loudspeakers are active, with built in amplifiers. However we did install four Meyer Sound Galileo 616 processors and RMS system for remote loudspeaker monitoring. The processors are remotely controllable, which adds flexibility to the system," continued Marchenko.

In line with the new PA, new mixing consoles have also been added and DiGiCo was the manufacturer of choice for the Head of Sound

at the Moscow International House of Music, Alexander Odelevsky.

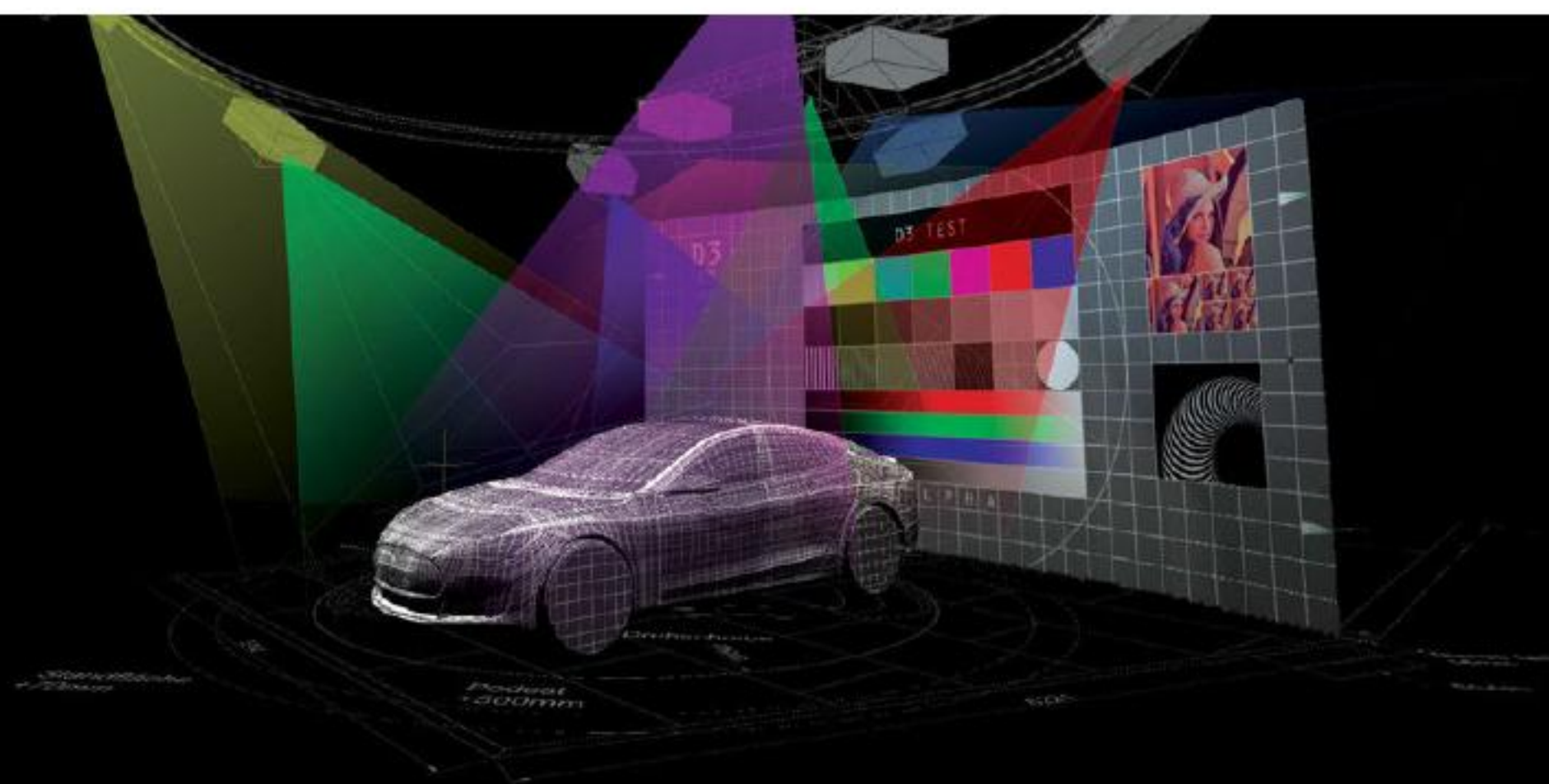
Two DiGiCo SD7 for FOH and a DiGiCo SD5 for monitors have been specified for the Svetlanov Hall. "Alexander was familiar with DiGiCo equipment and loves the convenience and the possibilities it gives. When the time of re-equipping the concert hall arrived Alexander insisted on the top brand in his opinion, wanting to purchase SD7's. Luckily, his preference was shared by others at MHM and the purchase of DiGiCo consoles was approved. This is how Aris, the official distributor of DiGiCo equipment in Russia, came onboard," explained Darya Bakhmanova of Aris.

Alongside the two DiGiCo SD7's and DiGiCo SD5 are three Waves SoundGrid servers to provide audio processing and three DiGiCo SD Racks, which provide 208 inputs and 208 outputs in total. All racks and consoles work in optical loop and there is a Mac Mini and an RME MADiface XT audio interface in place for multi-track recording, playback and virtual sound checks. "A symphony orchestra requires a huge amount of channels and I feel only DiGiCo SD7's are able to provide them," continued Darya. "MHM is the number one classical concert venue and therefore it must be equipped with the number one console. Art Director, Vladimir Spivakov is known for his demanding attitude towards sound quality, and Alexander is confident that DiGiCo consoles do not compromise in sound quality, flexibility or scalability meaning the products are able to meet even the toughest of requirements."



The new DiGiCo line-up extended beyond Svetlanov Hall, in the 573-seat chamber hall is an SDTen plus a Waves SoundGrid server and two DiGiCo SD Racks. These are in charge of a small sound system simply made up of three Meyer Sound UPA-1P wide coverage loudspeakers, which are installed as a L-C-R configuration. While in the theatre hall that has a capacity of 530, is a DiGiCo SD5 digital console, as well as two Waves SoundGrid servers and two DiGiCo SD Racks have been specified by Aris. Here two different audio set-ups are possible depending on who is using the space. If a PA system is required then a L-C-R configuration is implemented. The flown left and right hangs each consist of four L-Acoustics ARCS constant curvature line sources and two L-Acoustics dV-SUB subwoofers and groundstacked underneath are two L-Acoustics SB218 subwoofers and two L-Acoustics MTD108 small format loudspeakers. The centre array simply comprises four L-Acoustics ARCS constant curvature line sources. The second option is a 5.1 surround sound set-up which ►

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is made up of six L-Acoustics MTD108 small format loudspeakers and two L-Acoustics SB218 subwoofers.

"The plan is to have all the halls and systems connected into one audio network synchronised by single clock-generator and a Stagetec Nexus Star audio routing system, which will make it possible to send and receive signals in any format," said Darya. Pavel Kravchun, Associate Professor of Acoustics at Moscow Lomonosov State University concluded on the new audio installation: "Now Svetlanov Hall is not one hall but a number of concert halls with optimum acoustics for every kind of music." 

## TECHNICAL INFORMATION

### SOUND

**SUETLANDU HALL:** 40 x Meyer Sound UP-4XP loudspeaker; 73 x Meyer Sound MM-4XP self-powered loudspeaker; 24 x Meyer Sound Stella-8C installation loudspeaker; 10 x 10 Meyer Sound UMS-SM subwoofer; 4 x Meyer Sound D-Mitri DVRAS digital processor; 48 x MIC-CARD miniature microphone; 20 x 10 Meyer Sound MICA line array cabinet; 4 x Meyer Sound 600-HP subwoofer; 6 x Meyer Sound UPQ-1P loudspeaker; 8 x Meyer Sound M1D loudspeaker; 8 x Meyer Sound 700-HP subwoofer; 4 x Meyer Sound Galileo 616 processor; 2 x DiGiCo SD7 mixing console; 1 x DiGiCo SD5 mixing console; 3 x Waves SoundGrid server; 3 x DiGiCo SD Rack

**CHAMBER HALL:** 3 x Meyer Sound UPA-1P wide coverage loudspeaker; 1 x DiGiCo SDTen mixing console; 1 x Waves SoundGrid server; 2 x DiGiCo SD Rack

**THEATRE HALL:** 12 x L-Acoustics ARCS constant curvature line source; 4 x L-Acoustics dV-SUB subwoofer; 4 x L-Acoustics SB218 subwoofer; 4 x L-Acoustics MTD108 small format loudspeaker; 6 x L-Acoustics MTD108 small format loudspeaker; 2 x L-Acoustics SB218 subwoofer; 1 x DiGiCo SD5 mixing console; 2 x Waves SoundGrid server; 2 x DiGiCo SD Rack

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## FRANÇAIS

Le Centre international des arts de la scène de Moscou, également connu sous le nom de Maison internationale de la musique de Moscou, a ouvert ses portes en 2002 en y accueillant le premier concert de l'Orchestre Philharmonique Nationale de Russie, sous la direction musicale du chef d'orchestre, Vladimir Spivakov. La salle principale du complexe, la Salle Svetlanov, peut accueillir jusqu'à 1 735 personnes. Depuis toujours, cet espace est multifonctionnel et de ce fait doit être équipé des dernières technologies pour en garantir la flexibilité. Dans cet état d'esprit, le système sonore de la Salle Svetlanov, comprenant des colonnes M'elody de chez Meyer Sound, a récemment été remplacé par un système de type « Constellation » du même fabricant, utilisant des armoires à haut-parleurs Mica. C'est l'un des premiers sites en Russie à s'équiper d'un système de type « Constellation ». Pour rester en phase avec le nouveau système de sonorisation, de nouvelles consoles de mixage DiGiCo ont également été rajoutées, car ce fabricant reste le partenaire privilégié d'Alexander Odelevsky, Directeur du son à la Maison internationale de la musique de Moscou. Une console DiGiCo SD5 et une console SD7 ont été demandées pour la Salle Svetlanov et l'équipement DiGiCo s'étend aussi aux autres salles du complexe ; une SD7 gère la salle de théâtre et une SD10, la salle de musique de chambre.

## DEUTSCH

Das Internationale Zentrum für darstellende Künste in Moskau - ebenfalls bekannt unter dem Namen Moskau International House of Music - wurde 2002 mit dem Debüt der russischen Nationalphilharmonie unter der musikalischen Leitung von Vladimir Spivakov eröffnet. Die Svetlanov-Halle ist der wichtigste Veranstaltungsort im Komplex und bietet 1735 Plätze. Der Bereich wurde immer multifunktional konzipiert und muss deswegen mit der modernsten Technologie ausgestattet werden, um Flexibilität zu gewährleisten. Mit dieser Idee im Hinterkopf wurde das Soundsystem der Svetlanov-Halle kürzlich von Meyer Sound M'elody Line-Arrays auf ein Meyer Sound Constellation-System aufgerüstet, das Line-Array-Gehäuse von Mica benutzt. Somit handelt es sich um einen der ersten Veranstaltungsorte in Russland, der mit einem Konstellationssystem ausgestattet ist. Entsprechend dem neuen Leistungsverstärker wurden ebenfalls neue Mischpulte hinzugefügt und DiGiCo war der Hersteller, der für den technischen Leiter des Moskau International House of Music, Alexander Odelevsky, die erste Wahl war. Ein DiGiCo SD5 und ein SD7 wurden für die Svetlanov-Halle festgelegt und die DiGiCo-Ausrüstung setzt sich in den anderen Veranstaltungsorten des Komplexes ebenfalls fort, ein weiteres SD7 in der Theaterhalle und ein SD10 im kleinen Saal.

## ITALIANO

Il centro internazionale di arti performanti di Mosca, anche conosciuto come l'International House of Music di Mosca, è stato inaugurato nel 2002 con l'orchestra filarmonica nazionale russa che ha debuttato sotto la direzione musicale del direttore Vladimir Spivakov. La Svetlanov Hall è l'edificio principale all'interno del complesso e può ospitare fino a 1.735 persone. Lo spazio è stato sempre progettato per essere multifunzionale e, in base alle proprie necessità, per essere equipaggiato con le ultime tecnologie per assicurare la massima flessibilità. Tenuto conto di questo, la Svetlanov Hall ha recentemente ampliato il suo sistema audio passando dai line array della Meyer Sound Melody al sistema Meyer Sound Constellation che usa dei cabinet per line array ed è stato uno dei primi posti in Russia ad aver usato un sistema Constellation. In linea con il nuovo PA, sono stati aggiunti dei nuovi mixer e DiGiCo è stato il fornitore del direttore del suono dell'International House of Music di Mosca, Alexander Odelevsky. Per la Svetlanov Hall sono stati specificatamente utilizzati gli SD5 e gli SD7 della DiGiCo e tutti gli equipaggiamenti della DiGiCo vengono utilizzati anche per gli altri edifici del complesso, insieme a un'altra SD7 nella hall del teatro e una SD10 nel salone.

## ESPAÑOL

El Centro Internacional de Artes Escénicas de Moscú - el Salón Internacional de Música de Moscú - abrió sus puertas por primera vez en 2002 con la Orquesta Filarmónica Nacional Rusa con un debut bajo la dirección musical de Vladimir Spivakov. El Salón Svetlanov es el principal dentro del complejo y puede sentar hasta 1.735 personas. El espacio fue siempre diseñado para ser multi-funcional y como tal, necesita ser equipado con lo último en tecnología para asegurar flexibilidad. Con esto en mente, al Salón Svetlanov se le ha actualizado recientemente su sistema de sonido de las formaciones de cajas acústicas Meyer Sound M'elody a un sistema Meyer Sound Constellation utilizando gabinetes de formaciones de cajas acústicas Mica. Es uno de los primeros lugares en Rusia en equiparse con un sistema de Constelación. En línea con el nuevo PA, también se han agregado nuevas consolas de mezcla y DiGiCo fue el fabricante elegido por el Jefe de Sonido del Salón Internacional de Música de Moscú, Alexander Odelevsky. Para el Salón Svetlanov se han especificado un DiGiCo SD5 y un SD7. El equipamiento DiGiCo también continúa en los otros salones del complejo, otro SD7 en el salón del teatro y un SD10 en la sala de audición.