grandMA3 in Control Making Eurovision History



The 2023 Eurovision Song Contest (ESC) was staged at Liverpool Arena in the UK on behalf of 2022's winner Ukraine, which was unable to stage the event due to security concerns related to its ongoing war with Russia, which invaded its neighbour in February 2022.

Among the highest-profile televised music events on the planet, the 2023 ESC was also one of the most watched to date and has been hailed for its jaw-dropping visuality and production values. Behind this masterpiece of sonic and visual presentation, organized by the European Broadcasting Union (EBU) and host broadcaster the BBC (British Broadcasting Corporation) on behalf of UA:PBA, Ukraine's public broadcaster, was a large team of creative and technical experts who worked tirelessly to deliver spectacular results.

Lighting control for the show's 2650 luminaires – and 145,000 parameters – was achieved using a full grandMA3 system â€l for the first time in Eurovision history!

Collaborative

Lighting designer Tim Routledge amassed his own group of talented collaborators to ensure that all 37 competing delegations achieved the look, style and all the lighting drama required for their artist to give it their best shot.

Programmers Tom Young, Alex Mildenhall and Marc Nicholson worked intensely and diligently on delivering this visual extravaganza.

Tom and Alex were responsible for the "effects lighting― elements, whilst Marc co-ordinated all the key lighting. Integral to the team were overnight programmers Alex Passmore and Adam Marshall with Alex P sitting in Tom's seat and Adam sitting in Alex M's.

Together, Tom and Alex M utilised four grandMA3 full-size consoles at FOH, a main and backup each, with another grandMA3 full-size and a grandMA3 light as mobile †technical†desks that could be moved around the arena during the set up and rehearsal period. Marc used a grandMA3 light, with another for backup, and a grandMA3 light for his technical console. This collection of consoles also included a grandMA3 light run by Morgan Evans for triggering the audience LED wristbands.

Processing duties were handled by 11 x grandMA3 processing unit L and 12 x grandMA3 processing unit M.

In addition to those of the lighting department, two grandMA3 compact XTs were used to fire pyro, operated by Eleanor Waller.



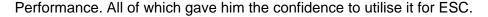
Noa Kirel rehearsing Unicorn for Israel at the First Rehearsal of the First Semi-Final at Liverpool Arena.

First Choice

Using grandMA3 was one of the first topics on the agenda when Tom was asked onboard. While his knowledge and aptitude with grandMA2 helped establish his own reputation as a leading international lighting programmer, he has been using grandMA3 as his preferred choice for some time.

"I knew that some of the grandMA3 features and workflows would allow us to work quicker and more efficiently which would be absolutely invaluable on a show of this size and complexity,― he elucidates, adding that while he was aware the global eyes of the production world would be on all of them during this event, he was convinced that grandMA3 was "absolutely the right choice for this show, and I also wanted us to be the first to run a Eurovision exclusively on grandMA3 software!―

For Alex Mildenhall, going all grandMA3 was a "no brainer―. Like Tom, he's been working full-time on the system for a couple of years and has completed several large productions using the platform including the Queen's Platinum Jubilee Concert, The Brit Awards, the Commonwealth Games Opening / Closing ceremonies in Birmingham well as some regular TV shows like The Masked Singer and the Royal Variety



He and Tom worked in a shared session controlling over 130,000 parameters – and with grandMA3 supporting up to 250,000 – it meant that the production could access all the speed, processing power and flexibility of the platform.

With such large parameter counts, the grandMA3 viz-key product was crucial to being able to deliver the show. With three in total; one per programmer / pre-viz machine, allowing each to view their elements of the rig in Depence 3 without requiring all the processing units. Each grandMA3 session supports more than one grandMA3 viz-key, so Tom and Alex were able to work on separate machines, completely independently, with each showing only their portions of the rig.

TV lighting specialist Marc was also free to choose his lighting platform as he worked in a completely different session. Having switched to grandMA3 18 months ago from another console manufacturer, he commented, "l'm impressed with the adaptability, and I enjoy using the console which is important when you spend so much time working with it!―

Independence

Tom concentrated on programming the main stage lighting and flown pods surrounding the B-Stage, while Alex took care of the audience, set lighting (the set was designed by Julio Himede) and LED tape, artist extras packages, the B-Stage overhead fixtures and the main stage floor fixtures, including the lifting columns surrounding the B-stage.

Tom decided from the off that Marc should be set up separately in his own session with his 200 or so key lights across another 15,000 parameters. This was a sensible "belt-and-braces' approach,― he explained, knowing that he and Alex would be seriously testing the system with lots of changes across multiple fixtures in lightning quick time.

After much debate, Tom and Alex decided to work in a single session, however they still wanted to store into separate sequences so they could work autonomously, which is now possible thanks to grandMA3's Datapools.

This enables each user to have their own Datapool or "area― in which to store their individual sequences / presets / timecode objects etc. The individual Datapool information is self-contained and invisible but accessible to the other users.





La Zarra from France performed Évidemment at the First Semi-Final at Liverpool Arena

Recipes for Success

grandMA3's Recipes were used extensively by all on the programming team.

As Tom states, the idea of being able to program intent is "revolutionary―, and a highly flexible MO that can be fully tailored to the user and their individual workflow. Recipes were especially helpful on this production as some fixtures had to be swapped out at short notice.

Programming using Recipes meant that when a replacement fixture had more cells than the original, they could clone a few presets, update the required groups and all related programming was instantly updated with Phasers running perfectly and the full MATricks information preserved.

Alex echoes the same opinion, saying, "l cannot stress enough how powerful a tool Recipes can be.―

On the Grid

Selection Grid is another of Alex's favourite grandMA3 features, along with Plugins.

Selection Grid makes building and editing effects across multiple fixture selections "substantially quicker and easier,― which was especially helpful on ESC when the large 7-segments of the main stage LED screen revolved 180 degrees to reveal a wall of Robe TetraX 360-degree moving LED battens. It was also perfect for programming an oval shaped flown grid – dubbed †the chandelier' – of Ayrton Magic Blades.

Tom also appreciates this grandMA3 feature, agreeing that, together with Recipes, it is one of the system's "major selling points―.

He built a grid for all the TetraX cells using a new feature in v1.9; the ability to extract the XYZ information from

the inbuilt 3D for Children fixtures, which made building complex grids incredibly easy. Once the grid is built, it is straightforward to manipulate using the onboard tools for inverting, turning it upside down, mirroring or rotating!

Tom, Alex, and Marc used several Plugins to assist the programming process including many from MATools, such as their "Patch Importer―, "Inverter― and "Markers―. Alex thinks that grandMA3 opening up the world of Plugins definitely differentiates and "makes it stand out from and above the competition!―

The ESC Challenges

The pace of rehearsals was the biggest challenge for Marc from a key lighting perspective.

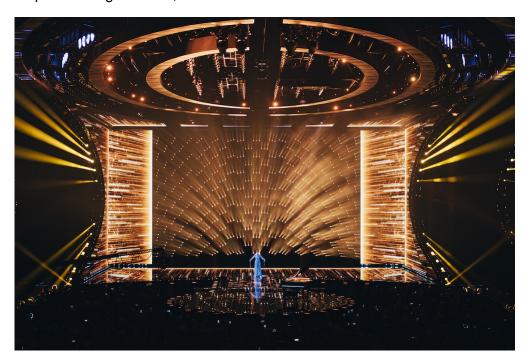
In the short time that each artist was onstage, light levels had to be set, follow spots tweaked for shadows or for moving set pieces and props and set lighting focuses had to be fine-tuned, all whilst reviewing the previous take, making and absorbing notes from multiple places and identifying timecode. It was a hectic process!

He notes that the stability of the grandMA3 software helped him to just steam on with solving exposure issues and deal with camera shadows, ensuring each delegation was happy with what they were seeing.

For Tom and Alex, a major challenge was ensuring what they were both creating was cohesive and continuous with one another. $\hat{a} \in \infty$ Despite wanting the ability to work independently, the overall look we were both creating had to resemble a single vision, $\hat{a} \in \infty$ noted Tom. $\hat{a} \in \infty$ The ability to work within the same session and within our own Datapools $\hat{a} \in \infty$ whilst still being able to store into shared locations when required $\hat{a} \in \infty$ allowed us to achieve this goal with ease $\hat{a} \in \infty$.

Even though Tom has had plenty of experience running grandMA3 on large and multi-layered shows, he admits he was still "surprised― at the speed of the software on such a large and complex showfile.

They were never waiting for any processes to complete, "Everything just feels so much more immediate and responsive in grandMA3,― he concludes.



Tight Timeframes

The gruelling lighting programming schedule lasted the best part of 8 weeks including five weeks on site plus three of pre-viz at lighting contractor Neg Earth. It involved constant programming, tweaking, and staring at screens which is mentally draining, but everyone on the lighting team agrees it was totally worth it for the stunning results that incorporated all the glitter, flamboyance, energy, fun and emotion of a truly memorable Eurovision show.

Once the production was installed at Liverpool Arena, when Tom and Alex M had finished programming for the day, Adam and Alex P would take over and power through the night, studying and implementing any last remaining notes and tidying up focuses still requiring attention.

The already tight rehearsal time was rapidly devoured implementing notes, nailing the overall look and feel of the piece and ensuring that the delegations, their show teams and creative directors were happy and could see changes happening instantly.

For other finessing like general focus tidying, minor tweaks or for lighting a special set piece or prop, the day shift would rough in the elements and leave it to the overnight crew to complete, including getting set pieces or props physically in place to perfect the required lighting.

Similarly with any overhead fixture focuses on a series of automated trusses, Tom would programme an approximation of what this should be during the day, and task Alex P to get the trusses moved into the correct position overnight when he could craft the lighting in detail.

All About the People

In addition to those mentioned above, also vital to Tim's lighting team were associate lighting designers James Scott, Zhenya Kostyra from Ukraine, and Morgan Evans, plus follow spot caller Louisa Smurthwaite.

Tom notes the superlative support from all at MA Lighting and their UK distributors, Ambersphere Solutions. From the initial discussions back in November 2022 all the way to the final live shows in May 2023. "Their support is always second to none, but this time they completely exceeded themselves!― he declares.

Max Brokbals from MA Lighting's technical support team put in countless hours and "incredible on-site work―. He was joined by his colleague Daniel Kannenberg also from MA HQ for some of the time. Freelancer Matt Peel brought valuable insights and vital tea making skills to the equation, and Ambersphere's Nick Rubenacker was another great support asset for the team.

Finally, says Tom, "last but not least― Ambersphere's Philip Norfolk's unwavering support throughout the entire project was matched by his unparalleled cake making and washing up skills which generated lots of smiles!

Despite the incredibly intense schedule, everyone enjoyed fantastic camaraderie and synergy, both on their own teams and between the assorted technical disciplines and departments, all of which contributed to producing such spectacular results of which the brave and amazing people of Ukraine could be proud.

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Company Profile

MA Lighting International as master distributor is responsible for worldwide sales, support and marketing of the professional lighting control solutions of MA Lighting Technology. The current product range offers the grandMA3 series including system and network solutions. In the past MA has become well known for its MA Network Switch, the grandMA2, grandMA and dot2 series.

Today, MA Lighting is respected for its technical knowledge and has achieved a unique international reputation for its operational philosophy. The company offers several decades of experience and strictly follows a professional user-centric approach, getting as close as possible to the market via its own international offices and support centers in the UK, North America, Latin America, the Middle East/India, Asia Pacific and Scandinavia/Eastern Europe/Russia – supported by a world-wide distribution and service network.