

AUTOMATION IN PERFORMANCE SEMINAR – Friday 16 December 2011

	GARDEN ROOM LEVEL 3	CINEMA 2 LEVEL 4	GARDEN ROOM
09:30	Registration & Coffee		
10:00		Welcome & Introduction	
10:10		Keynote address MARK AGER CEO - Stage Technologies	
10:30		Presentation 1 - ROGER SPENCE Theatre Consultant, Abbot Spence Associates Sadler's Wells Power Flying – why then and why now!	
11:05		Presentation 2 - PAUL MOORE Technical Director, The Curve Should Automation Design be taught in isolation, as a separate discipline?	
11:40			COFFEE
12:00		Presentation 3 – GERBRAND BORDORFF Theatre Consultant –theatreadvies bv The performance of my automation - how do you choose a system and who do you involve?	
12:35		Presentation 4 – JOHN HASTIE Group Development Director Stage Technologies The life cycle of an automation project	
13:10			LUNCH
14:10		Presentation 5 – STEPHEN MACLUSKIE Lecturer, Stage Technology Royal Conservatoire of Scotland Embedding Automation in the curriculum	
14:45		Presentation 6 – ALISTAIR BELL Project Manager – Stage Technologies The Milton Court Project	
		Panel Discussion – Q&A	

Presenter Biographies

Mark Ager, CEO – Stage Technologies

After completing a MA in Physics at Oxford University, Mark spent a short time working on an oil rig off Aberdeen before joining the Royal Shakespeare Company. He became Systems Engineering Manager at the Barbican, primarily responsible for the maintenance of one of the first power flying systems installed in the UK. Whilst at the Barbican, he studied for a Diploma in Management and a MA in Robotics and Automation. He subsequently joined a stage engineering company and was responsible for the design of various automation and power flying systems. After three years working for an industrial automation company providing motion control systems, Mark set up Stage Technologies with John Hastie in 1994, combining their knowledge of the industry and new technologies to produce specialist theatre automation systems.

During the early years of Stage Technologies, Mark was directly involved with the development of the Acrobat control system, a computerised control system allowing multiple groups of axes to be controlled from a single console. He also worked on the development of a system to allow free ranging computer-controlled trucks to move to pre-plotted positions on the stage, now in its second generation of production for Las Vegas shows. The development of Pathway software was a significant milestone in automation technology, allowing an operator to plot 3-dimensional paths in space. This later evolved into Stage Technologies Visual Creator software, which allows the operator to plot a 6-degree of freedom path and complex 3-dimensional automated moves. Mark has designed radio control systems of remote systems (primarily for stage trucks) and PLC software and hardware systems. He also worked on Unix-based programming in C, Windows based programming in C, C++, Visual Basic and writing drivers for remote I/O systems.

In addition to Mark's many areas of expertise, he has also lectured at various theatre colleges and been invited to speak at numerous industry conferences on the topic of theatre automation and stage engineering. He has written a book on automation for professionals and students, first published in 2009. Mark devotes considerable time to promoting the awareness of engineering as a career, and is involved in the 'Make your mark' campaign which actively promotes engineering in schools and colleges around the UK.

Roger Spence, Theatre Consultant – Abbot Spence Associates

Roger studied Stage Design at Lincoln College of Art before embarking on his early career in senior technical and production posts at three major UK repertory companies and as a lighting designer, lighting over 250 drama, dance and opera productions in repertory, on tour and in the West End.

In the mid-1970s he moved into management as General Manager of The Scottish Ballet, subsequently becoming the Administrative Director of Tynewear Theatre Company, Newcastle upon Tyne, and from 1983 the Managing Director of the Royal Lyceum Theatre Company,

Edinburgh. Roger has served as a director on many arts boards and as a member of Arts Council panels. He was President of the Theatrical Management Association from 1992 – 1995 and its Vice President for a number of years, before and after that time.

Always involved in theatre design and refurbishment and an early member of the ABTT, Roger was Technical Consultant in 1969 for the new Newcastle University Theatre and from that time on was responsible for briefing documents and the overseeing of a number of schemes for improving the buildings of his organisations, in addition to other external consultancies. In 1989/91 he led the £4.3 million programme of major improvements to Phipp's historic 1883 Royal Lyceum Theatre, and this in turn led to a substantial but inevitable career change in 1995.

In this year he was appointed Project Director to Sadler's Wells Theatre to supervise the £56 million rebuilding of that theatre which re-opened in October 1998. In 2000 he became Project Director for the construction of the £106 million Wales Millennium Centre, Cardiff that opened in November 2004. Since 1997 he has been involved as a consultant on a number of projects, writing strategic briefing documents, option reports, impact and feasibility studies, while more recently he has been active as a Principal Adviser on a number of arts building projects principally the Dance House Leeds for Northern Ballet and Phoenix Dance, and for the National Concert Hall, Dublin.

Paul Moore *Technical Director – The Curve*

Curve's flying system is a fully automated Stage Technologies system with nearly 100 axes spread across two performance spaces. As Technical Director Paul production manages many of Curves own productions; designing automation solutions to differing production requirements and pushing the house system to its limits.

Prior to Curve, Paul worked as Technical Manager for Birmingham Hippodrome, one of the busiest receiving houses in the country. Although not directly involved in automation Paul worked alongside Stage Technologies on several major musicals including *Chitty Chitty Bang Bang* and *Miss Saigon*.

Whilst at the Hippodrome Paul coordinated the technical requirements for a number of UK tours on behalf of the Dance Consortium; the highlight of which were two tours by Brazilian dance choreographer Deborah Colker and French hip hop company Kafig. Corporate work for the Hippodrome included the opening and first anniversary of the Bullring shopping centre and the inauguration of Bishop of Birmingham, John Sentamu.

Paul first moved to Leicester to take up the position of lighting technician at the Haymarket Theatre where he met his wife (in the theatre bar) and settled in the City to raise a family. When not working Paul's time is taken up by his family and the enthusiasm for technical theatre (both old and new) that sparked the choice of career.

Gerbrand Bordorff, Theatre Consultant - theateradvies bv

Gerbrand has 30 years of experience in theatre as executive producer, head of marketing and publicity and theatre consultant. After studying Philosophy, Gerbrand worked for 10 years as an executive producer of various theatre shows and festivals. He was the Head of PR and Marketing for the International Theatre School Festival and the Rotterdam RO-theatre. In 1994 he was appointed as business manager of Hans Wolff & Partners (lighting designers and theatre consultants) before becoming a partner and theatre consultant at theateradvies bv.

As director and senior project manager at theateradvies bv Gerbrand has supervised the realisation of more than 75 projects in the Netherlands, Germany, Belgium, Russia and England. He specialises in the specifications and tendering of theatre technical equipment and has organised and supervised numerous tenders for power flying systems.

Presently Gerbrand is partner and senior consultant of theateradvies bv, editor of 'Zichtlijnen', the Dutch theatre technical magazine and guest professor at the Amsterdam School of the Arts. Fields of specialisation include specifications on lighting, communication, rigging and stage equipment (particularly power flying systems). organization and evaluation of (European) tenders, project management and supervision over the construction of the designs.

Some of the projects that Borgdorff has specified power flying systems and other stage equipment on include:

Berliner Festspiele,
Birmingham Repertory Theatre
Het Nieuwe Theater, Sneek, the Netherlands
Koninklijk Theater Carré, Amsterdam
Stadsschouwburg Amsterdam,
Casino Kursaal, Oostende, Belgium
Schouwburg De Harmonie, Leeuwarden, the Netherlands
Theater Het Park, Hoorn, the Netherlands
Het Nieuwe Theater, Zwolle, the Netherlands
Stadsschouwburg Haarlem, the Netherlands
De Kunstlinie Almere, the Netherlands

John Hastie, Group Development Director – Stage Technologies

John began his career in the field as an electrician at the Piccadilly Theatre. Here he gained his first hands-on experience of automation, while frequently having to repair systems during shows. Later he took on the role of Chief Electrician at the Wyndhams Theatre, becoming responsible for developing complex IT upgrades. His installations utilized Mercury Communications (C&W), the first ever fibre installation in the West End region. John went on to work with countless London theatres, designing and installing automated control systems for live productions.

John worked alongside Mark Ager on Andrew Lloyd Webber's original *The Phantom of the Opera* and together they formed Stage Technologies in 1994 with the aims of conceiving an innovative range of theatre automation systems and bringing much-needed specialist support infrastructure to the performance industry. Their very first shows included Cameron Mackintosh's *Oliver!*, *Sunset Boulevard*, and *Martin Guerre*. Since then they have gone on to lead teams that have provided cutting-edge automation for shows in over 30 countries across the globe, for projects that include national opera houses, state-of-the-art casino showrooms, grand class cruise ships, permanent shows for Cirque du Soleil, long-running West End shows, short-run productions, churches, drama school training projects and small school theatres.

John is the brains behind the company's overall strategic planning blueprint and oversees the electrical and control manufacturing department. In addition, he directs the client support department and the company's internal IT systems. He has overall responsibility for the company's projects department, including the Quality Management and Health and Safety portfolios.

John has also co-written a book on automation for professionals and students, first published in 2009.

Stephen Macluskie, Lecturer, Stage Technology – Royal Conservatoire of Scotland

Steve Macluskie works at the Royal Conservatoire of Scotland as a Lecturer specialising in Technical Stage Management for the BA Technical and Production Arts programme.

In 2008 Steve was responsible for securing a contract to install Stage Technologies automation equipment and control into the Conservatoire's New Athenaeum Theatre. Steve worked closely with Stage Technologies to provide the world's first curriculum based Stage Automation module which has since launched numerous graduates into automation careers upon graduation.

During the summer of 2010 he spent a week working with Cirque du Soleil in Montreal in order to understand more about the different uses of automation with regard to performer flying.

Steve also worked on National Theatre of Scotland's *Peter Pan* which employed a unique human counterweight bungee flying system.

As well as teaching Counterweight and Manual Flying, Rigging, Technical Management, Vectorworks and many other skills to the Management & Technology students, Steve also teaches across the Applied Arts and Design programmes and works closely with the design teams on technical staging solutions.

Steve is married and a keen club racing cyclist.

Alistair Bell, Project Manager – Stage Technologies

Prior to joining Stage Technologies Alistair was a mechanical design engineer at the Shadow Robot Company working on the manufacture of a 4 degree-of-freedom arm extension for a robotic arm. Alistair subsequently moved to join Racal Acoustics Ltd. working on a product development standard and conducting research into new technologies, including bluetooth and bone conduction.

Alistair joined Stage Technologies in 2007, assisting with the mechanical and electrical installation, preliminary testing and commissioning of advanced theatre automation systems in new theatres on cruise ships being built in northern Italy as well as for historic theatres such as the Théâtre Royal de la Monnaie in Brussels.

Alistair's projects have included Flights of Fantasy in Hong Kong (the design, build and installation of an automated Disney float parade), touring systems for Stage Technologies' US special effects partner ZFX, Siong Ann Hollywood Theatre, Voyage de la Vie, and Resorts World Sentosa, Singapore. Current projects under his management include the Royal Welsh College of Music and Drama's new automation system, the Guildhall School of Music and Drama's new facilities at Milton Court, the Llanelli project in Wales and the Saudi Aramco Cultural Centre/The King Abdulaziz Center for Knowledge and Culture.

Alistair has worked extensively with radio-controlled, laser-positioned stage trucks as used in Voyage de la Vie.

His responsibilities include management of the design and manufacture process as well as supervision of mechanical and electrical installations and the day-to-day management of the site installation team.