

National Theatre Live to present the world's first live 4K theatre broadcast, *War Horse*, working in partnership with Sony, Creative Broadcast Solutions, NEP Visions and Links Broadcast



Basingstoke, February 18.02.2014 – In the next chapter of the *War Horse* story, National Theatre Live in collaboration with Sony, are pushing the technological boundaries of live entertainment to a new level. For the first time worldwide, the multi-award winning stage production will be broadcast live in 4K.

On February 27th 2014, National Theatre Live (NT Live) will broadcast *War Horse* live from the New London Theatre to cinemas across the world. The broadcast will be shown in Sony 4K at the Curzon Cinema in Chelsea, the theatre production will be projected using a Sony projector, ensuring cinema-goers enjoy the best possible 4K viewing experience. The recording will be available as a 4K DCP allowing many 4K enabled cinemas to also show encore screenings at a later date.

Technical

Creative Broadcast Solutions (CBS), Technical Producer for NT Live, with NEP Visions, NT Live's long-term OB partner will work with Sony, using Sony's F55 Super CineAlta cameras equipped with Fujinon Cabrio lenses to capture the performance. NEP Visions will provide the technical infrastructure and expertise to take the 4K content from camera to satellite, as well as recording and broadcasting a simultaneous HD version.

The cameras will feed 4K content into Sony BPU4000 fibre adapters which generate 4K and HD signals simultaneously, the feeds are then sent to a 4K capable vision mixer to create a live mix from the six camera feeds, adding graphics and subtitles (for the HD version only). Pre-recorded supplementary programme materials have been ingested onto a Sony media server to play in. The live mix is passed to the satellite service provider Links Broadcast. The mix feed is recorded on a Sony MasterDeck, both for archive and the creation of a 4K DCP master that will be sent to theatres around the world. NEP Visions will also record 4K ISOs onto two additional Sony MasterDecks for later use. As well as the groundbreaking 4K presentation, NEP Visions will provide a simultaneous

live HD feed for distribution by Links Broadcast to over 1000 cinemas worldwide in line with NT Live's existing programme of broadcasts.

Links Broadcast will provide the satellite uplink and downlink facilities to enable the delivery of the *War Horse* 4K signal from the New London Theatre in to the Curzon Cinema in Chelsea. The Links Broadcast 4K uplink will operate alongside Links' HD uplink facility and will enable the encoding of the incoming 4K content. Using four synchronous Adtec EN-100 encoders the incoming signal is combined in to a single transport stream via an Adtec DTA3050 multiplexor for onward transmission via a 1.5m antenna on Links Broadcast's 4K uplink vehicle.

The 4K signal will be uplinked on to SES Astra's 3B satellite using 36Mhz of capacity in order to achieve the maximum possible video data rate within the modulated 4K transport stream. The incoming signal will be downlinked at the Curzon cinema in Chelsea via a 1.8M Links Broadcast receive antenna which will be fed in to Adtec RD70 receiver decoders and will be delivered to Sony's 4K cinema facility for the projection.

Decoded 4K pictures will be fed directly to Curzon Chelsea's Sony projector, with four times the detail of 2K or conventional HD television pictures, Sony 4K brings audiences unmatched levels of immersive detail and realism.

About *War Horse*

Based on the novel by Michael Morpurgo, *War Horse* is the powerful story of a young boy called Albert and his beloved horse, Joey, who has been requisitioned to fight for the British in World War I. Caught in enemy crossfire, Joey ends up serving on both sides during the war before landing in No Man's Land, while Albert, not old enough to enlist, embarks on a treacherous mission to find his horse and bring him home. A remarkable tale of courage, loyalty and friendship, *War Horse* features ground-breaking puppetry work by South Africa's Handspring Puppet Company, which brings breathing and galloping horses to life on stage, seen by over 4 million people worldwide the broadcast of *War Horse* will be seen in over 1000 cinemas in more than 30 countries.

Spokespeople Quotes

Emma Keith, Producer, NT Live, commented, "NT Live is delighted to be at the forefront of this new technology and to continue being at the cutting edge of live broadcast, particularly with our production of *War Horse*, which at its heart is a show which involves some spectacular puppetry – an art form which is thought to have originated over 5000 years ago."

Chris Bretnall from Creative Broadcast Solutions commented, “We are proud to have been integral with the NT Live broadcasts from the outset, CBS are tremendously excited to continue to exploit the latest in emerging technologies to achieve the best possible experience for the cinema audiences.”

Brian Clark, Commercial & Technical Projects Director, NEP Visions commented, “NEP Visions is delighted to be involved in the ground breaking event that is the National Theatre’s hugely prestigious project, *War Horse*, being broadcast live in 4K. This project is part of NEP Visions’ continuing push for innovation in developing areas of technology, to support our production partners and remain at the cutting edge of TV.”

David Bush, Head of Marketing at Sony Professional, Sony Europe added,” At the heart of Sony DNA is the will to push technological boundaries always further. Being able to demonstrate, with the help of partners, a worldwide first live 4K workflow from stage to screen, on a project as well loved and renowned as *War Horse*, represents a true milestone in the development of 4K technology.”

Rob Wickings, Managing Director, Links Broadcast, “This is a most exciting development in broadcast technology and in live satellite transmission in particular, and Links Broadcast are proud to be working with the National Theatre and its other technical partners on this revolutionary project which builds upon our existing experience in delivering major live events”.

Notes to Editors:

About NT Live

National Theatre Live is an initiative by the National Theatre to broadcast live performances onto cinema screens around the world.

Since its first season, which began in June 2009 with the acclaimed production of ***Phédre*** starring **Helen Mirren**, over 2 million people have now experienced the work of National Theatre Live in cinemas worldwide. In addition to the recent record-breaking broadcast of ***The Audience*** starring **Helen Mirren** as The Queen (winner of two 2013 Olivier Awards, including the Best Actress award for Mirren), recent broadcasts have included the Manchester International Festival production of ***Macbeth*** with **Kenneth Branagh** in the title role, Nicholas Hytner’s acclaimed production of ***Othello*** with **Adrian Lester** and **Rory Kinnear**, and the Donmar production of ***Coriolanus*** with Tom Hiddleston, in the title role.

War Horse is currently celebrating its sixth year at the New London Theatre in the West End, and is also on a successful tour of the UK and Ireland. A German language production entitled *Gefährten* is running at the historic Theater des Westens in Berlin, a North American production continues to tour throughout 2014, and a Dutch language production is will open soon at the Royal Theatre Carre in Amsterdam running until September as part of the Holland Festival, and will then tour to five Cities in the Netherlands. The Broadway production of *War Horse* was the winner of six Tony Awards including a Special Tony Award for Handspring Puppet Company.

Based on a novel by Michael Morpurgo, *War Horse* is adapted by Nick Stafford and presented in association with Handspring Puppet Company. Directed by Marianne Elliott and Tom Morris, it is designed by Rae Smith, lighting is by Paule Constable and movement and horse choreography by Toby Sedgwick. The puppetry directors are Basil Jones and Adrian Kohler, with video design by 59 Productions Ltd, song-making by John Tams, music by Adrian Sutton and sound by Christopher Shutt.

War Horse is produced in the West End by the National Theatre and National Angels.

www.warhorseonstage.com

Website: <http://www.ntlive.com>

Twitter: <https://twitter.com/ntlive>

Facebook: <https://www.facebook.com/ntlive>

About Creative Broadcast Solutions

Creative Broadcast Solutions, led by Chris Bretnall, are world-leaders in TV production and satellite distribution of live events to global digital cinema locations.

Chris has been the Technical Producer for National Theatre Live productions since inception, and he and the team have managed most of the live event to cinema transmissions within the UK over the last 8 years.

The last 28 years in broadcast management and delivery has encompassed over 3500 projects: with continuing production and consultancy roles for a wide range of geographically and content-rich clients.

Website: <http://www.creativebroadcastsolutions.com/>

Twitter: <https://twitter.com/satfacts>

About NEP Visions

NEP Visions is the largest independent outside broadcast facilities company in the UK and amongst the largest in Europe, with over 25 years' experience of delivering first class outside broadcast facilities and services for the production of television in all genres across the world. A leader in HD production facilities, having been involved in its first HD productions in 2003 and at the forefront of the development of this standard ever since, Visions has one of Europe's most extensive range of OB and production facilities providing the very latest in technical standards, including 3D. Its facilities include a fleet of 20 trucks plus edit facilities, extensive HD OB fly-pack facilities, production offices, studio facilities and much more. Visions' extensive list of credits includes the Olympic Games, football and rugby World Cups, host facilities provider to the Asian Games, Premier League and Champions League football and a host of music and light entertainment events all over the world. NEP Visions is an NEP Broadcasting Company.

Website: www.visions-ob.com

Twitter: <https://twitter.com/NEPVisions>

About Links

Links Broadcast is the UK's leading independent provider of satellite uplink facilities, satellite capacity, production facilities, IP satellite facilities webcasting and related facilities and services. With a fleet of HD and SD SNG vehicles as well as fly-away uplinks, transportable TV Receive Only dishes, Microwave and Fibre facilities, Cameras and Production Crew Links can respond to any requirement whatever its size. Our experience extends across all genre of broadcasting including sports, entertainment and corporate events and we have been involved in some of the largest events in the world of broadcasting including the London Olympics, the Royal Wedding, the FIFA World Cup and the UEFA Champions League and we have been actively involved in the distribution of digital cinema content for many years. We are trusted to deliver services on behalf of all of the major broadcasters and production companies in the UK and we frequently work for many major international organisations. Links Broadcast is a wholly owned subsidiary of SCCI Alphatrack who are specialists in commercial satellite and terrestrial broadcasting as well as special events.

Website: www.linksbroadcast.com

Twitter: <https://twitter.com/linksbroadcast>

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