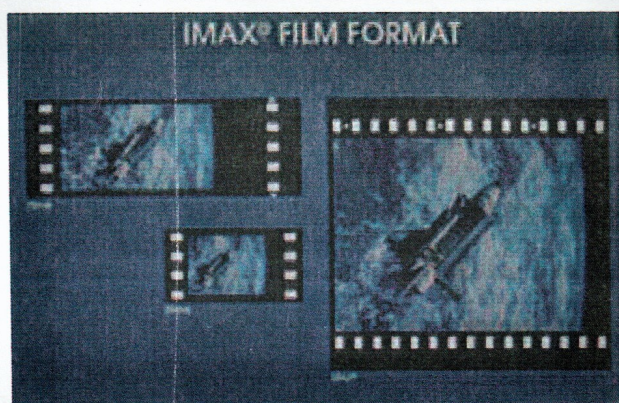## What is IMAX?

The IMAX Experience®
The term 'IMAX' comes from the words 'Image Maximum'. The size, scale and advanced technology of IMAX combine to create the illusion that the audience is immersed in the picture, actually experiencing the film rather than simply watching it.

How IMAX works

IMAX screen
At 20m high (nearly the height of five double-decker buses) and 26m wide, the screen at the BFI IMAX is the largest screen in Britain and encompasses the audience's peripheral vision, providing a visually stunning cinematic experience.

The largest film on the right is IMAX film, 70mm film top left and 35mm film bottom left.

IMAX film format
The IMAX film format is called 15perf/70mm - the width of the film is 15 perforations wide and the height of the film is 70mm. Each IMAX frame is 10 times larger than conventional 35mm film. No soundtrack is added to the film as this would take up valuable picture area.

IMAX projector
The IMAX projector is the most advanced, precise and powerful projector system in the world. Film travels through the projector at a rate of 334 feet per minute (compared to only 90 feet a minute for 35mm film). IMAX film moves horizontally through the projector (unlike 35mm which moves vertically) in a continuous wave-like motion called 'Rolling Loop.'

During projection, each frame is positioned on fixed registration pins and a vacuum holds the film flat against the rear lens element. This system keeps the film perfectly still, further enhancing the audience's illusion of being amidst the on-screen action.

IMAX sound system
The sound system is also larger than life. The Sonics system, specifically designed for IMAX theatres, eliminates variations in volume and sound quality over the theatre seating area. This allows all members of the audience to experience superb sound quality regardless of where they may be seated.

Six tracks of sound are sent to large cluster speakers around the theatre and a huge bass speaker behind the screen. The screen is perforated with thousands of tiny holes to allow the sound to flow through freely. The digital soundtrack is loaded from a DVD disk onto a computer, which locks the projector and soundtrack together to control the show.

IMAX 3D films

An IMAX 3D film is actually two reels of film projected simultaneously through a twin lens system. The viewer wears polarised glasses to help keep the two images separate until they reach the brain which creates the illusion that the picture is within arm's reach.

Not all IMAX films are 3D but all films screened in IMAX cinemas benefit from sophisticated large screen projection and state-of-the-art sound quality.

IMAX DMR® Technology

Some films are made using IMAX DMR technology. This is a process by which a conventional 35mm cinema film is digitally re-mastered into IMAX's larger-than-life format.

Each individual 35mm frame is converted to high res. digital format; the IMAX DMR software then removes the 35mm grain structure and creates an enhanced IMAX version with incredible visual clarity. Once the process is complete, the film format is 10 times larger than its original size!

BFI IMAX

1 Charlie Chaplin Walk

Southbank

London

SE1 8XR

T: 020 7199 6000

W: www.bfi.org.uk/imax

Current programme

Film Titles:

Avatar 3D: Special Edition

* Bugs! 3D

* Dinosaurs 3D: Giants of Patagonia

* Haunted Castle 3D

Inception

* Lions 3D: Roar of the Kalahari

* Mysteries of Egypt

* Sea Monsters 3D

* Space Station 3D

* Under the Sea 3D

* Wild Safari 3D

(*usually only for the Education Sector)

Opera (Live from The Met) Titles:

Das Rheingold

Boris Godunov

Don Pasquale

Don Carlo

La Fanciulla del West

Nixon in China

Iphigénie en Tauride

Lucia di Lammermoor

Coming Soon:

A Christmas Carol 3D

Despicable Me (A digital cinema presentation)

Polar Express 3D

Wildest Dream