



A fascinating tour of the cosmos — from Earth orbit.

Written and produced by
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Narrated by Wren Ross

Running time: 30:00
Grade level: 4-12 and
general public audiences



Since its launch in 1990, the Hubble Space Telescope has provided incredible images in unprecedented detail to astronomers, and made an astonishing array of discoveries — from nearby objects in the solar system to the most distant galaxies at limits of the observable universe.

We've taken the best and most exciting Hubble images and woven them into an engaging story of cosmic exploration, bringing the wonders of the universe to audiences everywhere.

In this all-new production, major themes in current astronomy and cosmology are presented: new views of the planets; peeks into starbirth nurseries; visions of stardeth in its many forms; explorations of star clusters and galaxies; and views of the universe when the earliest galaxies first shone.

We catch glimpses of solar system objects, including the Moon and Venus; clouds on dusty Mars; Comet Shoemaker-Levy 9's crash into Jupiter; storms on Saturn, Uranus, and Neptune; and the faraway worlds of Pluto and Quaoar.



Beyond the solar system, we explore protoplanetary disks in the Orion Nebula, and regions of starbirth across the cosmos. We witness the deaths of stars like our Sun; the cataclysmic aftermath of supernovae in the Crab Nebula; and expanding rings around Supernova 1987a. We see breathtaking views of colliding galaxies; jets shooting from active galactic nuclei, powered by supermassive black holes; the eerie effects of gravitational lenses; and deep-field views of the most distant galaxies ever seen.



The images in ***HUBBLE Vision 2*** began as digital files released by the Space Telescope Science Institute, NASA, the European Southern Observatory, and by scientists working directly with HST data. Then we carefully reframed, resized, cropped and enhanced the images for optimal planetarium display. We've also created original artwork and graphics to supplement and illustrate other points of the show.

Bring the Space Telescope's exciting discoveries to audiences of all ages.

HUBBLE Vision 2 is a factual journey through the universe, as seen through the unblinking eye of one of the world's premier telescopes — a planetarium show done in the professional style you expect from Loch Ness Productions.





Science Education Content

The educational focus of *HUBBLE Vision* is to present the discoveries made by the Hubble Space Telescope, explaining the objects it has observed and the processes that shape the cosmos. This is done via a set of multidisciplinary themes woven throughout the program. These ideas help relate the information presented in the show to the lives of students and their families. The language level is appropriate for students at the middle-school level and above, and the general public

Show content is relevant in the following subject areas:

Earth and Space Sciences:

- Objects in the sky: planets (moons, surface characteristics, atmospheres, magnetic field phenomena), comets
- Extra-solar objects: stars, supernovae, nebulae, clusters, galaxies, and black holes

Science and Technology:

- Hubble Space Telescope and its science instruments
- Optical, infrared, and ultraviolet capability of the Space Telescope
- Hubble Space Telescope servicing missions

Physical Sciences:

- How objects look in different realms of the electromagnetic spectrum
- Processes of starbirth, stardeath (astrophysical processes)
- Deducing the existence of black holes by effects on host galaxies
- Determination of cosmic distances
- Exploring the structure of the universe

Science Inquiry:

- How we use HST to explore the cosmos

This show adheres to principles put forth in the National Academy of Sciences' Education Standards published in 1996. For more details, visit the NAS Standards Web site at: <http://books.nap.edu/html/nses/html/index.html>.

The images in the *HUBBLE Vision 2* show package are provided in digital format. Digital planetaria can program shows using these images directly. For those facilities using slides, we can act as your service bureau by supplying masked, glass-mounted slides. Just order them in addition to the basic show package.

Only an Earth chord image needs to be projected on the horizon, so even those theaters with minimal panorama capability should still be able to present this show effectively. We've made two HST visuals into all-skies — and extracted three adjoining single-frame images for theaters without all-sky projector systems to use.

We created a stellar formation animation video, and included it on the DVD. If you don't have video projection capability, you can use the still image sequence we've extracted from the video instead.

HUBBLE Vision 2 requires a signed performance license agreement to be sent to us with your order. You can download it from this show's page on our Web site, along with previews of all the program's images, excerpts from the soundtrack, and sample script pages. You can also order online and find further information about optional products such as DigiDome®, narrationless soundtracks, programming cue files, replacement or duplicate copies, alternate formats and more.

PRODUCT CODE	The <i>HUBBLE Vision 2</i> show package contains:	PRICE
HV2-D	<ul style="list-style-type: none"> • Performance license • Printed book: Script/production notes • DVD: Soundtrack, programmer's reference demo, optional video clip • Data CD: Images/masks in Targa form (<i>you make your own slides</i>) 	\$595



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