

What is AstroPix?

The AstroPix Image Archive is an aggregator for many of the best public astronomical images from the world's leading observatories. Assets include a full range of astronomical observations, illustrations, charts, and photographs spanning the field of Astronomy.

All of the AstroPix imagery is richly tagged with metadata describing the content, from titles and captions to astronomical facilities and coordinates. It employs the Astronomy Visualization Metadata (AVM) standard, which allows both general information (title, caption, credit, etc.) as astronomy-specific data (observations, coordinates, etc.) to be embedded directly into the images.

The archive currently contains over **2,800 images** including most of the public imagery from NASA's Great Observatories along with the complete ESO archive.

AstroPix Participation

The AstroPix project is an outgrowth of the IAU working group on Communicating Astronomy with the Public. It is the result of collaborative efforts across the globe to converge on a consistent metadata scheme for image assets and offering them to a central archive site.

The goal is to include more observatories and institutions in the coming year to provide the most complete image service for international astrophysics that meets the needs and interests of educators, communicators, researchers, journalists, and the general public.

Current partners providing image assets include:

Chandra GALEX NuSTAR WISE
ESO Hubble Spitzer

Who Benefits?

Observatories

Exposing the high quality public imagery at a single authoritative site prevents it from being buried on search engine results and makes it easy to track back to the original web pages

Educators

AstroPix simplifies the task of finding relevant images both current and archival. The rich authoritative metadata enhance their use in educational situations.

Planetariums and Museums

Having a single site to check for the most recent, best images as they are released offers the best opportunities for informal education. In addition to existing WorldWide Telescope support, all the major planetarium software developers are working on AstroPix/AVM support for upcoming releases

Developers

We are developing APIs allowing external websites, mobile apps, and museum kiosks to access the AstroPix archive. Have an interesting application? Contact us and we can help work out an appropriate API for it.

Everyone Else

Our goal in the coming years is to develop AstroPix into an exciting and fun-to-use asset for anyone interested in astronomy whether they be kids or professors.

Anatomy of an Asset

Direct link to view in WorldWide Telescope

Variety of download sizes

Image subject and source names

Graphical distance scale

Position and FOV

Extensive identification of observatories, instruments, and color-mapping

Current Holdings:
>2,800 images!

Full credits and links to image source

Flexible Queries

Free text query

Structured query

Made Possible by Metadata

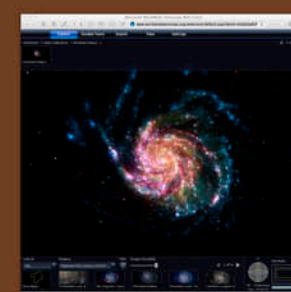
All of the AstroPix imagery is richly tagged with metadata describing the content, from titles and captions to astronomical facilities and coordinates. It employs the **Astronomy Visualization Metadata (AVM)** standard, which allows both general information (title, caption, credit, etc.) as astronomy-specific data (observations, coordinates, etc.) to be embedded directly into the images.

The AVM standard has been embraced by many observatories which have added it to their routine image release workflow.

Adding providers to AstroPix becomes a simple process. Any collection of images on the web which have been AVM-tagged can be added to AstroPix through a simple RSS feed.

AVM Toolkit

We have recently released a web-based tool for reading and writing image metadata. Anyone wanting to learn more about AVM, or tag a gallery's worth of images, is welcome to create an account and start working on it. In addition, collections residing on the AVM Toolkit website may be turned into AstroPix feeds automatically, making it easier to add assets.



AVM-tagged JPEG images that include WCS coordinate information will appear in their correct location when viewed within Microsoft's WorldWide Telescope web client. AVM information is embedded directly into the image file.

Find Out More

astropix.ipac.caltech.edu

The AstroPix Archive is in a beta state but is already very useful. Explore the site and see how it works for you.

avm.ipac.caltech.edu

Learn more about the AVM standard at the AVM Toolkit site. There you can find documentation on the standard and simply start tagging. Developer resource links are also available on the site along with links to other useful resources (like AVM panels for Photoshop).

virtualastronomy.org

AVM and AstroPix are products of the Virtual Astronomy Multimedia Project (VAMP). Documentation and an overview of history and goals of the project are detailed on its website.

<https://groups.google.com/d/forum/avm-astropix>

Join the avm-astropix Google group for periodic updates on the project and to reach the active community of AVM participants.

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If you have unanswered questions or would like to become more involved in the project, please contact Robert Hurt at the email address above.