NED: Serving the Community for 35 Years

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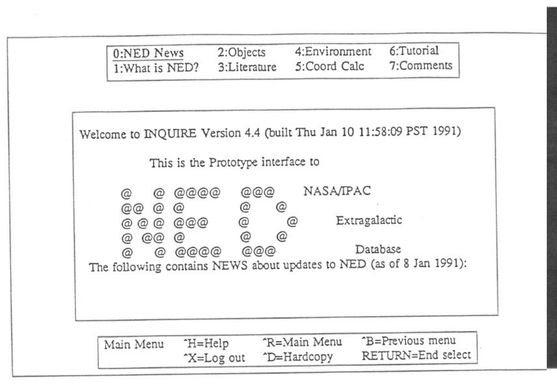
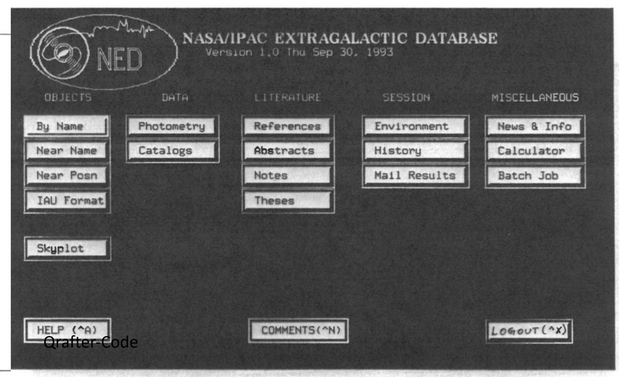
Vision: The NASA/IPAC Extragalactic Database (NED) aims to capture the most reliable census of extragalactic objects and provide essential data and tools to facilitate astrophysics research and exploration.

Mission: NED accelerates science discovery in astrophysics within NASA's strategic plan by providing a census of extragalactic objects augmented with data joined from across the electromagnetic spectrum for use by the research and lay communities worldwide with access through computer query protocols and user-friendly interfaces. This data synthesis is continually updated by the fusion of fundamental data, prioritizing objects with measured redshifts and distances in refereed publications and major catalogs, and by providing external links to additional data. NED provides its reliable compendium and suite of query tools to support many research areas including spectral energy distributions, statistical studies, and time-domain astronomy.

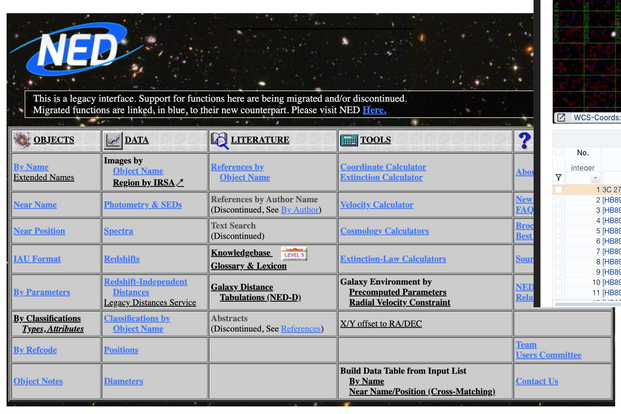
2018 AJX based interactive UI



1990 VT100 terminal UI via telnet



1993 X-Window based VT100 UI via telnet



1997 WEB based simple form UI

APIs (to be released in March 2025)

Cone searches:

ConeSearchByTarget,
ConeSearchByPosition, ConeSearchByIAUstyle

ObjectsInRefcode

Details for single object:

CrossidsOfObject, PositionsOfObject, RedshiftsOfObject, DistancesOfObject, ClassificationsOfObject, ExtinctionAtTarget, NotesOfObject, DiametersOfObject, PhotometryOfObject, ReferencesOfObject, ExternalLinksOfObject, OverviewOfObject

Tools:

ExtinctionsAtPosition, CoordinateConversion, VelocityConversion

Data in NED (October 2025)

From peer reviewed journal articles and published catalogs

Distinct Objects	> 1.1 B
Multiwavelength Cross-IDs	> 1.5 B
Distinct References	> 138 K
Photometry Data Points	> 13 B
Diameters	> 609 M
Redshifts	~ 19 M
Objects with Redshifts	> 11 M
Redshift-Independent Distances	> 252 K
Objects with Redshift-Independent Distances	> 152K

Best Practices for Data Publication in the Astronomical Literature

NED led the collaboration with more than a dozen organizations and coauthors to publish the article in *The Astrophysical Journal Supplement Series*, May 2022. It gave an overview of best practices for publishing data in astronomy and astrophysics journals. These recommendations are intended as a reference for authors to help prepare and publish data in a way that will better represent and support science results, enable better data sharing, improve reproducibility, and enhance the reusability of data. …

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Gravitational Wave Follow-up (GWF) Service

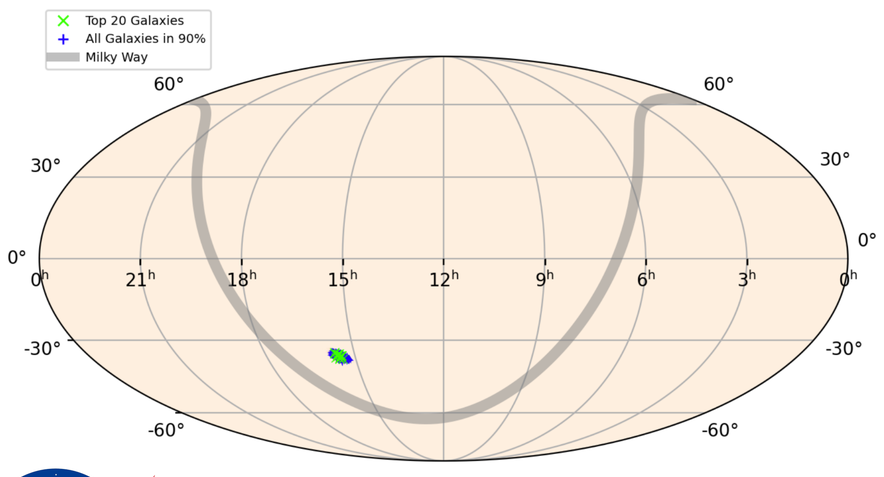
facilitating searches for electromagnetic (EM) counterparts to gravitational wave (GW) events.

Sky Localization for S250725j-4-Update Cross-Matched with Galaxies in NED

GW Event Information

graceID↗	EventDate	Distance	Instruments	Classification	HasNS	HasRemnant	HasMassGap	HasSSM	FAR
S250725j	2025-07-25 04:09:44 (UTC)	379.7 +/- 93 Mpc	H1,L1,V1	BBH (99%)	0.0	0.0	0.0	0.0	1 per 745.0 years

Table columns: "graceID" is the International Gravitational-Wave Observatory Network (IGWN) designation and is a link to the GraceDB entry for this event. "EventDate" is the date and time of the GW event in UTC. "Distance" is the mean and standard deviation of the event distance. "Instruments" indicates which facilities were involved in detecting the GW event. "Classification" indicates if the source has a significant probability (>10%) of BNS, NSBH, BBH, SSM, and Terrestrial; see Content page↗ for details) derived by the IGWN pipeline. "HasNS", "HasRemnant", "HasMassGap", and "HasSSM" are the probabilities that at least one of the compact objects was a neutron star, that the system ejected a non-zero amount of neutron star matter, that at least one of the compact objects has mass in the range 3-5 solar masses, and at least one of the compact objects has a mass less than one solar mass, respectively. FAR is the false alarm rate for the GW event given as the number of instances per year that a noise fluctuation is expected to occur with the strength of this event in each of the detectors at the same time.



Interactions with Other Archives and Tools