

WebServices for Catalog Access

This webservice allows either forms access or programmatic access to the Guide Star Catalog(s) as well as a number of other catalogs available from MAST.

General Catalog Webform	GSC 2 Catalog Webform	GSC 1 Catalog Webform
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General Catalog Access : <http://gssss.stsci.edu/webservices/vo/CatalogSearch.aspx?Parameters...>

Required Parameter List

1 of the following 4 queries - VO ConeSearch, BoxSearch, StcsSearch, IDsearch

1. RA=ra(deg) &DEC=dec(deg) &SR=search radius(deg)
2. BBOX=raMin(deg),decMin(deg),raMax(deg),decMax(deg)
3. STCS=Space Time Coordinate System shape (eg, CIRCLE ICRS 254.58755449 34.21313021 0.1 or POLYGON 180.428742 -18.893042 180.455582 -18.906816 180.488081 -18.858382 180.461245 -18.84461 180.428742 -18.893042)
4. ID=catID (NOTE: do NOT place quotes around the IDs)

Optional Parameters

- FORMAT= VOTABLE(default) | HTML | KML | CSV | TSV | JSON | TEXT(limited set of catalogs)
- FILENAME=outputname (directs output to file)
- MAXOBJ=n (limits number of entries returned by brightest magnitude)
- MAGRANGE=bright,faint (limits number of entries returned by limits)
- MINDET=n (minimum numbr of detections PanSTARRS only)
- EPOCH=yyyy.y (Updates ra/dec using proper motion IF AVAILABLE)
- CATALOG=

Catalogue Type	CATALOG=code	Description	Max search size
GSC catalogues	GSC11	Guide Star Catalog v1.1 (Original catalogue for HST operations launch till 2000)	7.5 deg
	GSC1xxx	Special catalogs of selected areas for HST calibrations	
	GSC1ZZQ	Eta Carina	
	GSC1ZZR	Omega Centauri	
	GSC1ZZT	NGC5617	
	GSC1ZZU	HR6945	
	GSC1ZZV	HR6850	
	GSC1ZZW	HR6636	
	GSC1ZZX	Iota Carina	
	GSC1ZZZ	NGC188	
	GSC12	v1.2 (updated Astrometry)	7.5 deg
	GSC23	v2.3 (Used for HST operations 2000-2017)	5 deg
	GSC240	v2.4.0 (used for HST operations 2017-2021)	5 deg
	GSC241	v2.4.1	5 deg
Astronomy Catalogues	GSC242 (default)	v2.4.2 (Current version for HST & JWST operations 2021- TBD)	5 deg
	GSC243	v2.4.3	5 deg
	2MASS	2MASS All-Sky IR survey Point Source Catalog	5 deg
	2MASSXSC	2MASS All-Sky IR survey Extended Source Catalog	5 deg
	APASS	AAVSO Photometric All Sky Survey DR9	5 deg
	ASPICV11	All-Sky PLATO Input Catalog v1.1	5 deg
	ATLAS	ATLAS All-Sky Reference Catalog	5 deg
	FIRST	Faint Images of the Radio Sky at Twenty-cm source catalog	5 deg
	GAIAdr1	GAIA Astrometric catalog of stellar positions and proper motions DR1	1 deg
	GAIAdr2	GAIA Astrometric catalog of stellar positions and proper motions DR2	1 deg

	GAIAedr3	GAIA Astrometric catalog of stellar positions and proper motions Early DR3	1 deg
	GAIAr3	GAIA Astrometric catalog of stellar positions and proper motions DR3	1 deg
	GALEX	Galaxy Evolution Explorer DR6/7	5 deg
	GSPC2	Guide Star Photometric Catalog v2	10 deg
	IRAS	Infrared Astronomical Satellite	10 deg
	KIC	Kepler Input Catalog	1 deg
	KIDS	VST Kilo-Degree Survey	1 deg
	Landolt	Landolt photometric standards	10 deg
	NSCdr2	NOIRlab Source Catalog DR2	1 deg
	PS1dr1	panSTARRS DR1 (mean detected objects)	0.25 deg
	PS1Best	panSTARRS DR1 (mean detected objects with >2 detections + classifications)	0.25 deg
	PS1dr2Objects	panSTARRS DR2 (mean detected objects)	0.25 deg
	PS1dr2Detections	panSTARRS DR2 (individual detections)	0.25 deg
	PS1dr2	panSTARRS DR2 (mean detected objects with >2 detections)	0.25 deg
	RC3	3rd Reference Catalog of Bright Galaxies	10 deg
	SDSS	Sloan Digital Sky Survey DR16	1 deg
	SMSSdr1	SkyMapper Southern Sky survey DR1	1 deg
	SMSSdr2	SkyMapper Southern Sky survey DR2	1 deg
	TESSINPUT	TESS Input Catalog v8.2	5 deg
	TGAS	Tycho-GAIA Astrometric System	1 deg
	UCAC5	USNO CCD Astrograph Catalog v5	7.5 deg
	UltraVISTA	VISTA Deep/Ultra-Deep Near-IR Survey of the COSMOS Field	1 deg
	USNOB	USNO-B Astrometric catalog v1.0	2 deg
	VIKING	VISTA Kilo-degree Infrared Galaxy Survey DR2	1 deg
	VistaVhs	VISTA Hemisphere Survey DR4	1 deg
	VSTAtlas	VST ATLAS survey DR3	1 deg
	WISE / ALLWISE	Wide-field Infrared Survey Explorer	1 deg
Common Archive Observation Model	CAOM_OBSCORE	IVOA obsCore data model	10 deg
	CAOM_OBSPPOINTING	MAST portal results grid (science / calibration / all)	
	CAOM_CALPOINTING		
	CAOM_ALLPOINTING		
High Level Science Product Catalogs	HLSP_30DOR	Hubble Tarantula Treasury Project	1 deg
	HLSP_47TUC	Deep HST ACS Imaging of 47 Tuc	1 deg
	HLSP_HLASTARCLUSTERS	The HLA Star Cluster Project	1 deg
	HLSP_PHAT	The Panchromatic Hubble Andromeda Treasury	0.2 deg
	HLSP_TESSHERMES	TESS-HERMES Spectroscopic Survey	1 deg
Hubble Legacy Archive Catalogs	HLA_ACS_DAO	ACS DaoPhot catalogs	2 deg
	HLA_ACS_SEX	ACS SourceExtractor catalogs	2 deg
	HLA_GRI	ACS/NICMOS Grism observations (from ESO)	2 deg
	HLA_NICMOS_DAO	NICMOS DaoPhot catalogs	2 deg
	HLA_NICMOS_SEX	NICMOS SourceExtractor catalogs	2 deg
	HLA_WFC3_DAO	WFC3 DaoPhot catalogs	2 deg
	HLA_WFC3_SEX	WFC3 SourceExtractor catalogs	2 deg

	HLA_WFPC2_DAO	WFPC2 DaoPhot catalogs (from CADC)	2 deg
	HLA_WFPC2_SEX	WFPC2 SourceExtractor catalogs (from CADC)	2 deg

e.g.

- <http://gsss.stsci.edu/webservices/vo/CatalogSearch.aspx?RA=83.633083&DEC=22.0145&SR=.01&FORMAT=html&CAT=PS1V3OBJECTS&MINDET=25&MAXOBJ=5>
- <http://gsss.stsci.edu/webservices/vo/CatalogSearch.aspx?CAT=PS1V3OBJECTS&ID=134410836341049171&FORMAT=HTML>
- <http://gsss.stsci.edu/webservices/vo/CatalogSearch.aspx?ra=10&dec=20&sr=0.05&format=html>
- https://gsss.stsci.edu/webservices/vo/CatalogSearch.aspx?ra=10&dec=20&sr=0.05&format=html&cat=caom_allpointing
- <http://gsss.stsci.edu/webservices/vo/CatalogSearch.aspx?bbox=10,20,10.5,21&format=csv&catalog=gsc11>
- <http://gsss.stsci.edu/webservices/vo/CatalogSearch.aspx?id=NBQI004317>