

Record Structure

This section describes the catalog columns in the different versions of the GSC. Some columns changed between versions.

Catalog Fields by version

Fields may appear in one or more of these versions:

- DB Table name : CatalogRecord (note that field ordering may change between versions)
- DB View : PhotoPrimary for compatibility with previous version of catalog
- DB View : XXXpublicVOview for use with outward facing services such as VO webservises
- Legacy FITS files : for use with HST ground system (deprecated)

FieldName	FieldDescription	unit	ucd1+	DataType	1.1	1.2	2.3	2.4.0	2.4.1	2.4.2	2.4.3	3.0
objID	Database ID		meta.record	long	x	x	x	x	x	x	x	x
GSC1ID	GSC1 Public ID (5 character Region Number + 5 character Sequential Number within region both with leading zeros e.g. 0000100001)		meta.id;meta, main (1.x) meta.id.cross (2.x)	char(10)	x	x	x	x	x	x	x	x
RegionNumber	GSC1 Region number		meta.id.part	int	x	x						
SequentialNumber	GSC1 Sequential number within region		meta.id.part	int	x	x						
PlateID	GSC1 Plate Identifier		obs.field	char(4)	x	x						
nObs	GSC1 Number observations		meta.number	int	x	x						
hstID	GSC2 Public ID (compassgsc2id converted to base 36 to fit within GS field on-board spacecraft)		meta.id;meta.main	char(10)			x	x	x	x	x	x
gsc2ID	GSC2 Internal ID (HTM L6 Region Name + Sequential Number within region)		meta.id	char(20)			x	x	x	x	x	x
compassGSC2id	GSC2 Internal ID (integer representation of gsc2id)		meta.id	long			x	x	x	x	x	x
GAIASourceID	GAIA dr1 ID		meta.id	long				x	x			
GAIAdr1sourceID	GAIA dr1 ID		meta.id	long						x	x	
GAIAdr2sourceID	GAIA dr2 ID		meta.id	long						x	x	
GAIAdr3sourceID	GAIAedr3/dr3 ID		meta.id	long							x	x
alias	Other identifications		meta.id.assoc	char	x	x						
FieldName	FieldDescription	unit	ucd1+	DataType	1.1	1.2	2.3	2.4.0	2.4.1	2.4.2	2.4.3	3.0
RightAscension	Right Ascension (ICRS)	degree	pos.eq.ra;meta, main	double	x	x						
Declination	Declination (ICRS)	degree	pos.eq.dec;meta, main	double	x	x						
ra	RA (alias)	degree	pos.eq.ra;meta, main	double			x	x	x	x	x	x
dec	Dec (alias)	degree	pos.eq.dec;meta, main	double			x	x	x	x	x	x
raEpsilon	RA error	arcsec	stat.error	float			x	x				
raErr	RA error (alias)	GSC 1/2 arcsec GSC 3 mas	stat.error	float					x	x	x	x
decEpsilon	Dec error	arcsec	stat.error	float			x	x				
decErr	Dec error (alias)	GSC 1/2 arcsec GSC 3 mas	stat.error	float					x	x	x	x
PositionError	Position error	arcsec	stat.error	float	x	x						
posSource	Object coordinates source		meta.id;meta, dataset	int					x	x	x	x
rapm	RA proper motion	mas/year	pos.pm;pos.eq.ra	float	x	x	x	x	x	x	x	x
raProperMotion	RA proper motion (alias)	mas/year	pos.pm;pos.eq.ra	float								
decpm	Dec proper motion	mas/year	pos.pm;pos.eq. dec	float	x	x	x	x	x	x	x	x
decProperMotion	Dec proper motion (alias)	mas/year	pos.pm;pos.eq. dec	float								
ProperMotionFlag	Flag for proper motion		meta.code	char	x	x						
rapmErr	RA pm error	mas/year	stat.error	float			x	x	x	x	x	x
decpmErr	Dec pm error	mas/year	stat.error	float			x	x	x	x	x	x
pmSource	Proper motion source		meta.id;meta, dataset	int					x	x	x	x

epoch	Epoch of coordinate	year	time.epoch;obs	float	x	x	x	x	x	x	x	x
positionEpoch	Epoch of coordinate (alias)	year	time.epoch;obs	float								
deltaEpoch	Time interval used for 2.3 PM computation	year	time.interval	float			x	x	x	x	x	x
FieldName	FieldDescription	unit	ucd1+	DataType	1.1	1.2	2.3	2.4.0	2.4.1	2.4.2	2.4.3	3.0
classification	Object classification code		meta.code.class	int	x	x			x	x	x	x
class	Object classification code (alias)		meta.code.class	int			x	x				
classSource	Classification source		meta.id;meta.dataset	int					x	x	x	x
NonStellarFlag	Flag that object is non-stellar		meta.code	char	x	x						
parallax	Parallax	mas	pos.parallax.trig	float	x	x			x	x	x	x
plxErr	Parallax error	mas	stat.error	float					x	x	x	x
plxSource	Parallax source		meta.id;meta.dataset	int					x	x	x	x
ParallaxFlag	Flag for parallax		meta.code	char	x	x						
radialVelocity	Radial Velocity	km/s	spect.dopplerVelocity	float					x	x	x	x
rvErr	Radial Velocity error	km/s	stat.error	float					x	x	x	x
rvSource	Source of radial velocity		meta.id;meta.dataset	int					x	x	x	x
usageFlag	Flag for GS usage		meta.code	short				x	x	x	x	x
sourceStatus	Object status codes		meta.code.status	long			x	x	x	x	x	
FieldName	FieldDescription	unit	ucd1+	DataType	1.1	1.2	2.3	2.4.0	2.4.1	2.4.2	2.4.3	3.0
variableFlag	Flag for known variable		meta.code.status	char(1)	x	x	x	x	x	x	x	x
SuspectedVariableFlag	Flag for suspected variable		meta.code.status	char(1)	x	x						
varSource	Variable Object source		meta.id;meta.dataset	int					x	x	x	x
VarFaintMag	Faintest Magnitude	mag	src.var.amplitude;stat.min	float	x	x						
VarBrightMag	Brightest Magnitude	mag	src.var.amplitude;stat.max	float	x	x						
VarBandPass	Bandpass code		meta.code	int	x	x						
multipleFlag	Flag for known multiple		meta.code.class	char(1)	x	x	x	x	x	x	x	x
multSource	Multiple Object source		meta.id;meta.dataset	int					x	x	x	x
usageFlag	Previous Guide Star use (+1 good -1 bad)		meta.code	int				x	x	x	x	x
XrefCalib	Flag that object was a calibrator		meta.code	char(1)	x	x						
XrefNon	Flag that object was non stellar		meta.code	char(1)	x	x						
Published	Flag that object was published		meta.code	char(1)	x	x						
Deleted	Flag that object was deleted		meta.code	char(1)	x	x						
Good	Flag that object was successfully used as GS		meta.code	char(1)	x	x						
Bad	Flag that object was unsuccessfully used as GS		meta.code	char(1)	x	x						
MultipleRecords	Flag that object has multiple records		meta.code	char(1)	x	x						
CatalogEntry	Flag that object came from a catalog		meta.code	char(1)	x	x						
ColorFlag	Flag that object has a color measurement		meta.code	char(1)	x	x						
Color	Photographic color	mag	phot.mag	float	x	x						
PlateXposition	Object X pixel coordinate on plate		pos.cartesian.x;meta.main	float	x	x						
PlateYposition	Object Y pixel coordinate on plate		pos.cartesian.y;meta.main	float	x	x						
PlateDensity	Integrated photographic density		phot.count	float	x	x						
FieldName	FieldDescription	unit	ucd1+	DataType	1.1	1.2	2.3	2.4.0	2.4.1	2.4.2	2.4.3	3.0
gaiaGmagnitude	GAIA G magnitude	mag	phot.mag;em.opt.v	float					x	x	x	x
gaiaGmagnitudeError	GAIA G magnitude error	mag	stat.error	float					x	x	x	x
gaiaGmagnitudeBandpass	GAIA G bandpass code		instr.bandpass	int					x	x	x	x
gaiaRpMagnitude	GAIA Rp magnitude	mag	phot.mag;em.opt.b	float						x	x	x
gaiaRpMagnitudeError	GAIA Rp magnitude error	mag	stat.error	float						x	x	x
gaiaRpMagnitudeBandpass	GAIA Rp bandpass code		instr.bandpass	int						x	x	x
gaiaBpMagnitude	GAIA Bp magnitude	mag	phot.mag;em.opt.b	float						x	x	x
gaiaBpMagnitudeError	GAIA Bp magnitude error	mag	stat.error	float						x	x	x
gaiaBpMagnitudeBandpass	GAIA Bp bandpass code		instr.bandpass	int						x	x	x
gaiaRvsMagnitude	GAIA Rvs magnitude	mag	phot.mag;em.opt.v	float								x
gaiaRvsMagnitudeError	GAIA Rvs magnitude error	mag	stat.error	float								x

gaiaRvsMagnitude Bandpass	GAIA Rvs bandpass code		instr.bandpass	int								x
FieldName	FieldDescription	unit	ucd1+	DataType	1.1	1.2	2.3	2.4.0	2.4.1	2.4.2	2.4.3	3.0
Magnitude	Photographic magnitude	mag	phot.mag	float	x	x						
MagnitudeError	Photographic magnitude error	mag	stat.error	float	x	x						
MagnitudeBandpass	Photographic bandpass code		instr.bandpass	int	x	x						
Mag	Representative "best" magnitude for QA	mag	phot.mag	float			x	x	x	x	x	x
OpgMag	Photographic O band magnitude	mag	phot.mag;em.opt. B	float					x	x	x	x
OpgMagErr	Photographic O band magnitude error	mag	stat.error	float					x	x	x	x
OpgMagCode	Photographic O band bandpass code		meta.code	int					x	x	x	x
JpgMag	Photographic Blue magnitude	mag	phot.mag;em.opt. B	float					x	x	x	x
JpgMagErr	Photographic Blue magnitude error	mag	stat.error	float					x	x	x	x
JpgMagCode	Photographic Blue bandpass code		meta.code	int					x	x	x	x
VpgMag	Photographic V band magnitude	mag	phot.mag;em.opt. V	float					x	x	x	x
VpgMagErr	Photographic V band magnitude error	mag	stat.error	float					x	x	x	x
VpgMagCode	Photographic V band bandpass code		meta.code	int					x	x	x	x
FpgMag	Photographic Red magnitude	mag	phot.mag;em.opt. R	float			x	x	x	x	x	x
FpgMagErr	Photographic Red magnitude error	mag	stat.error	float			x	x	x	x	x	x
FpgMagCode	Photographic Red bandpass code		meta.code	int			x	x	x	x	x	x
EpgMag	Photographic Red magnitude	mag	phot.mag;em.opt. R	float			x	x	x	x	x	x
EpgMagErr	Photographic Red magnitude error	mag	stat.error	float			x	x	x	x	x	x
EpgMagCode	Photographic Red bandpass code		meta.code	int			x	x	x	x	x	x
NpgMag	Photographic Near-IR magnitude	mag	phot.mag;em.opt.I	float			x	x	x	x	x	x
NpgMagErr	Photographic Near-IR magnitude error	mag	stat.error	float			x	x	x	x	x	x
NpgMagCode	Photographic Near-IR bandpass code		meta.code	int			x	x	x	x	x	x
NMag	Photographic Near-IR magnitude (alias)	mag	phot.mag;em.opt.I	float								
NMagErr	Photographic Near-IR magnitude error (alias)	mag	stat.error	float								
NMagCode	Photographic Near-IR bandpass code (alias)		meta.code	int								
FieldName	FieldDescription	unit	ucd1+	DataType	1.1	1.2	2.3	2.4.0	2.4.1	2.4.2	2.4.3	3.0
UMag	Johnson U band magnitude	mag	phot.mag;em.opt. U	float			x	x	x	x	x	x
UMagErr	Johnson U band magnitude error	mag	stat.error	float			x	x	x	x	x	x
UMagCode	Johnson U band bandpass code		meta.code	int			x	x	x	x	x	x
UMagSource	Johnson U band source		meta.id;meta. dataset	int					x	x	x	x
BMag	Johnson B band magnitude	mag	phot.mag;em.opt. B	float			x	x	x	x	x	x
BMagErr	Johnson B band magnitude error	mag	stat.error	float			x	x	x	x	x	x
BMagCode	Johnson B band bandpass code		meta.code	int			x	x	x	x	x	x
BMagSource	Johnson B band source		meta.id;meta. dataset	int					x	x	x	x
VMag	Johnson V band magnitude	mag	phot.mag;em.opt. V	float			x	x	x	x	x	x
VMagErr	Johnson V band magnitude error	mag	stat.error	float			x	x	x	x	x	x
VMagCode	Johnson V band bandpass code		meta.code	int			x	x	x	x	x	x
VMagSource	Johnson V band source		meta.id;meta. dataset	int					x	x	x	x
RMag	Johnson R band magnitude	mag	phot.mag;em.opt. R	float			x	x	x	x	x	x
RMagErr	Johnson R band magnitude error	mag	stat.error	float			x	x	x	x	x	x
RMagCode	Johnson R band bandpass code		meta.code	int			x	x	x	x	x	x
RMagSource	Johnson R band source		meta.id;meta. dataset	int					x	x	x	x
IMag	Johnson I band magnitude	mag	phot.mag;em.opt.I	float			x	x	x	x	x	x
IMagErr	Johnson I band magnitude error	mag	stat.error	float			x	x	x	x	x	x
IMagCode	Johnson I band bandpass code		meta.code	int			x	x	x	x	x	x
IMagSource	Johnson I band source		meta.id;meta. dataset	int					x	x	x	x
FieldName	FieldDescription	unit	ucd1+	DataType	1.1	1.2	2.3	2.4.0	2.4.1	2.4.2	2.4.3	3.0
SDSSuMag	SDSS u band magnitude	mag	phot.mag;em.opt. U	float					x	x	x	x
SDSSuMagErr	SDSS u band magnitude error	mag	stat.error	float					x	x	x	x
SDSSuMagCode	SDSS u band bandpass code		meta.code	int					x	x	x	x
SDSSuMagSource	SDSS u band source		meta.id;meta. dataset	int					x	x	x	x

SDSSgMag	SDSS g band magnitude	mag	phot.mag;em.opt.B	float					x	x	x	x
SDSSgMagErr	SDSS g band magnitude error	mag	stat.error	float					x	x	x	x
SDSSgMagCode	SDSS g band bandpass code		meta.code	int					x	x	x	x
SDSSgMagSource	SDSS g band source		meta.id;meta.dataset	int					x	x	x	x
SDSSrMag	SDSS r band magnitude	mag	phot.mag;em.opt.R	float					x	x	x	x
SDSSrMagErr	SDSS r band magnitude error	mag	stat.error	float					x	x	x	x
SDSSrMagCode	SDSS r band bandpass code		meta.code	int					x	x	x	x
SDSSrMagSource	SDSS r band source		meta.id;meta.dataset	int					x	x	x	x
SDSSiMag	SDSS i band magnitude	mag	phot.mag;em.opt.I	float					x	x	x	x
SDSSiMagErr	SDSS i band magnitude error	mag	stat.error	float					x	x	x	x
SDSSiMagCode	SDSS i band bandpass code		meta.code	int					x	x	x	x
SDSSiMagSource	SDSS i band source		meta.id;meta.dataset	int					x	x	x	x
SDSSzMag	SDSS z band magnitude	mag	phot.mag;em.opt.I	float					x	x	x	x
SDSSzMagErr	SDSS z band magnitude error	mag	stat.error	float					x	x	x	x
SDSSzMagCode	SDSS z band bandpass code		meta.code	int					x	x	x	x
SDSSzMagSource	SDSS z band source		meta.id;meta.dataset	int					x	x	x	x
SMSSvMag	SMSS v band magnitude	mag	phot.mag;em.opt.I	float								x
SMSSvMagErr	SMSS v band magnitude error	mag	stat.error	float								x
SMSSvMagCode	SMSS v band bandpass code		meta.code	int								x
SMSSvMagSource	SMSS v band source		meta.id;meta.dataset	int								x
PS1yMag	PanSTARRs y band magnitude	mag	phot.mag;em.IR.NIR	float					x	x	x	x
PS1yMagErr	PanSTARRs y band magnitude error	mag	stat.error	float					x	x	x	x
PS1yMagCode	PanSTARRs y band bandpass code		meta.code	int					x	x	x	x
PS1yMagSource	PanSTARRs y band source		meta.id;meta.dataset	int					x	x	x	x
FieldName	FieldDescription	unit	ucd1+	DataType	1.1	1.2	2.3	2.4.0	2.4.1	2.4.2	2.4.3	3.0
JMag	2MASS J band magnitude	mag	phot.mag;em.IR.J	float			x	x				
JMagErr	2MASS J band magnitude error	mag	stat.error	float			x	x				
JMagCode	2MASS J band bandpass code		meta.code	int			x	x				
tmassJMag	2MASS J band magnitude (alias)	mag	phot.mag;em.IR.J	float					x	x	x	x
tmassJMagErr	2MASS J band magnitude error (alias)	mag	stat.error	float					x	x	x	x
tmassJMagCode	2MASS J band bandpass code (alias)		meta.code	int					x	x	x	x
tmassJMagSource	2MASS J band source		meta.id;meta.dataset	int					x	x	x	x
HMag	2MASS H band magnitude	mag	phot.mag;em.IR.H	float			x	x				
HMagErr	2MASS H band magnitude error	mag	stat.error	float			x	x				
HMagCode	2MASS H band bandpass code		meta.code	int			x	x				
tmassHMag	2MASS H band magnitude (alias)	mag	phot.mag;em.IR.H	float					x	x	x	x
tmassHMagErr	2MASS H band magnitude error (alias)	mag	stat.error	float					x	x	x	x
tmassHMagCode	2MASS H band bandpass code (alias)		meta.code	int					x	x	x	x
tmassHMagSource	2MASS H band source		meta.id;meta.dataset	int					x	x	x	x
KMag	2MASS Ks band magnitude	mag	phot.mag;em.IR.K	float			x	x				
KMagErr	2MASS Ks band magnitude error	mag	stat.error	float			x	x				
KMagCode	2MASS Ks band bandpass code		meta.code	int			x	x				
tmassKsMag	2MASS Ks band magnitude (alias)	mag	phot.mag;em.IR.K	float					x	x	x	x
tmassKsMagErr	2MASS Ks band magnitude error (alias)	mag	stat.error	float					x	x	x	x
tmassKsMagCode	2MASS Ks band bandpass code (alias)		meta.code	int					x	x	x	x
tmassKsMagSource	2MASS Ks band source		meta.id;meta.dataset	int					x	x	x	x
FieldName	FieldDescription	unit	ucd1+	DataType	1.1	1.2	2.3	2.4.0	2.4.1	2.4.2	2.4.3	3.0
VistaZMag	VISTA Z band magnitude	mag	phot.mag;em.IR.NIR	float					x	x	x	x
VistaZMagErr	VISTA Z band magnitude error	mag	stat.error	float					x	x	x	x
VistaZMagCode	VISTA Z band bandpass code		meta.code	int					x	x	x	x
VistaZMagSource	VISTA Z band source		meta.id;meta.dataset	int					x	x	x	x
VistaYMag	VISTA Y band magnitude	mag	phot.mag;em.IR.NIR	float					x	x	x	x
VistaYMagErr	VISTA Y band magnitude error	mag	stat.error	float					x	x	x	x
VistaYMagCode	VISTA Y band bandpass code		meta.code	int					x	x	x	x
VistaYMagSource	VISTA Y band source		meta.id;meta.dataset	int					x	x	x	x

VistaKMag	VISTA K band magnitude	mag	phot.mag;em.IR.K	float					x	x	x	
VistaKMagErr	VISTA K band magnitude error	mag	stat.error	float					x	x	x	
VistaKMagCode	VISTA K band bandpass code		meta.code	int					x	x	x	
VistaKMagSource	VISTA K band source		meta.id;meta.dataset	int					x	x	x	
FieldName	FieldDescription	unit	ucd1+	DataType	1.1	1.2	2.3	2.4.0	2.4.1	2.4.2	2.4.3	3.0
WISEw1Mag	WISE w1 band magnitude	mag	phot.mag;em.IR.3-4um	float					x	x	x	
WISEw1MagErr	WISE w1 band magnitude error	mag	stat.error	float					x	x	x	
WISEw1MagCode	WISE w1 band bandpass code		meta.code	int					x	x	x	
WISEw1MagSource	WISE w1 band source		meta.id;meta.dataset	int					x	x	x	
WISEw2Mag	WISE w2 band magnitude	mag	phot.mag;em.IR.4-8um	float					x	x	x	
WISEw2MagErr	WISE w2 band magnitude error	mag	stat.error	float					x	x	x	
WISEw2MagCode	WISE w2 band bandpass code		meta.code	int					x	x	x	
WISEw2MagSource	WISE w2 band source		meta.id;meta.dataset	int					x	x	x	
WISEw3Mag	WISE w3 band magnitude	mag	phot.mag;em.IR.8-15um	float					x	x	x	
WISEw3MagErr	WISE w3 band magnitude error	mag	stat.error	float					x	x	x	
WISEw3MagCode	WISE w3 band bandpass code		meta.code	int					x	x	x	
WISEw3MagSource	WISE w3 band source		meta.id;meta.dataset	int					x	x	x	
WISEw4Mag	WISE w4 band magnitude	mag	phot.mag;em.IR.15-30um	float					x	x	x	
WISEw4MagErr	WISE w4 band magnitude error	mag	stat.error	float					x	x	x	
WISEw4MagCode	WISE w4 band bandpass code		meta.code	int					x	x	x	
WISEw4MagSource	WISE w4 band source		meta.id;meta.dataset	int					x	x	x	
FUVMag	GALEX FUV band magnitude	mag	phot.mag;em.UV.100-200um	float					x	x	x	
FUVMagErr	GALEX FUV band magnitude error	mag	stat.error	float					x	x	x	
FUVMagCode	GALEX FUV band bandpass code		meta.code	int					x	x	x	
FUVMagSource	GALEX FUV band source		meta.id;meta.dataset	int					x	x	x	
NUVMag	GALEX NUV band magnitude	mag	phot.mag;em.UV.200-300um	float					x	x	x	
NUVMagErr	GALEX NUV band magnitude error	mag	stat.error	float					x	x	x	
NUVMagCode	GALEX NUV band bandpass code		meta.code	int					x	x	x	
NUVMagSource	GALEX NUV band source		meta.id;meta.dataset	int					x	x	x	
FieldName	FieldDescription	unit	ucd1+	DataType	1.1	1.2	2.3	2.4.0	2.4.1	2.4.2	2.4.3	3.0
semiMajorAxis	SemiMajor diameter of object on DSS	pixels	phys.angSize.smajAxis	float			x	x	x	x	x	
eccentricity	Eccentricity of object on DSS		phys.size.axisRatio	float			x	x	x	x	x	
positionangle	Position Angle (North thru East) on DSS	degree	pos.posAng	float			x	x	x	x	x	
htmlID	Hierarchical Triangulated Mesh L10 id		pos.HTM	long	x	x	x	x	x	x	x	x
cx	3 vector		pos.cartesian.x	double	x	x	x	x	x	x	x	x
cy	3 vector		pos.cartesian.y	double	x	x	x	x	x	x	x	x
cz	3 vector		pos.cartesian.z	double	x	x	x	x	x	x	x	x
gLat	Galactic latitude	degree	pos.galactic.lat	float	x	x	x					
gLon	Galactic Longitude	degree	pos.galactic.lon	float	x	x	x					
spatial	RA/Dec as SQLserver location on sphere			geography			x	x	x	x	x	x