

Retrieving ZTF Light Curves

This plugin allows you to retrieve light curve data from the online ZTF database. The details of the ZTF project can be found here: <https://www.ztf.caltech.edu/>.

Obtaining ZTF object ID

The plugin gets data for the unique ZTF object ID. To determine the ID of the object of interest, go to <https://irsa.ipac.caltech.edu/cgi-bin/Gator/nph-scan?submit=Select&projshort=ZTF>, select a catalog, and press the [SELECT] button:

General Catalog Query Engine
powered by Gator

[Quick Guide](#) [Tutorial](#) [Catalog List](#) [Process Monitor](#) [Program Interface](#)

CATALOG SELECTION:

| ZTF Archive | | Select | | |
|----------------------------------|------------------|-----------|------------|-------------------|
| Selection | Descriptions | # Columns | # Rows | Information |
| <input checked="" type="radio"/> | ZTF DR15 Objects | 65 | 7315592173 | i |
| <input type="radio"/> | ZTF DR14 Objects | 65 | 7203292309 | i |
| <input type="radio"/> | ZTF DR13 Objects | 65 | 6985554017 | i |
| <input type="radio"/> | ZTF DR12 Objects | 65 | 6915002025 | i |
| <input type="radio"/> | ZTF DR11 Objects | 65 | 6860341302 | i |

On the next page, enter the object's coordinates (or object name), then click [Run Query]:



ZTF DR15 Objects

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[Run Query](#) [Restore Last Query Selection](#) [Reset](#)

☒ [Single Object Search](#) ☐ [Multi-Object Search](#) ☐ [All Sky Search](#)

SPATIAL CONSTRAINTS

Coordinate or
Object Name:

21 30 17.88 +35 10 25.4

Examples:

[298.0 29.87](#) | [269.84158 45.35492](#)

Search Method (choose one):

☒ [Cone:](#)

Radius PA Axial Ratio
(0<Radius≤600 arcsec)

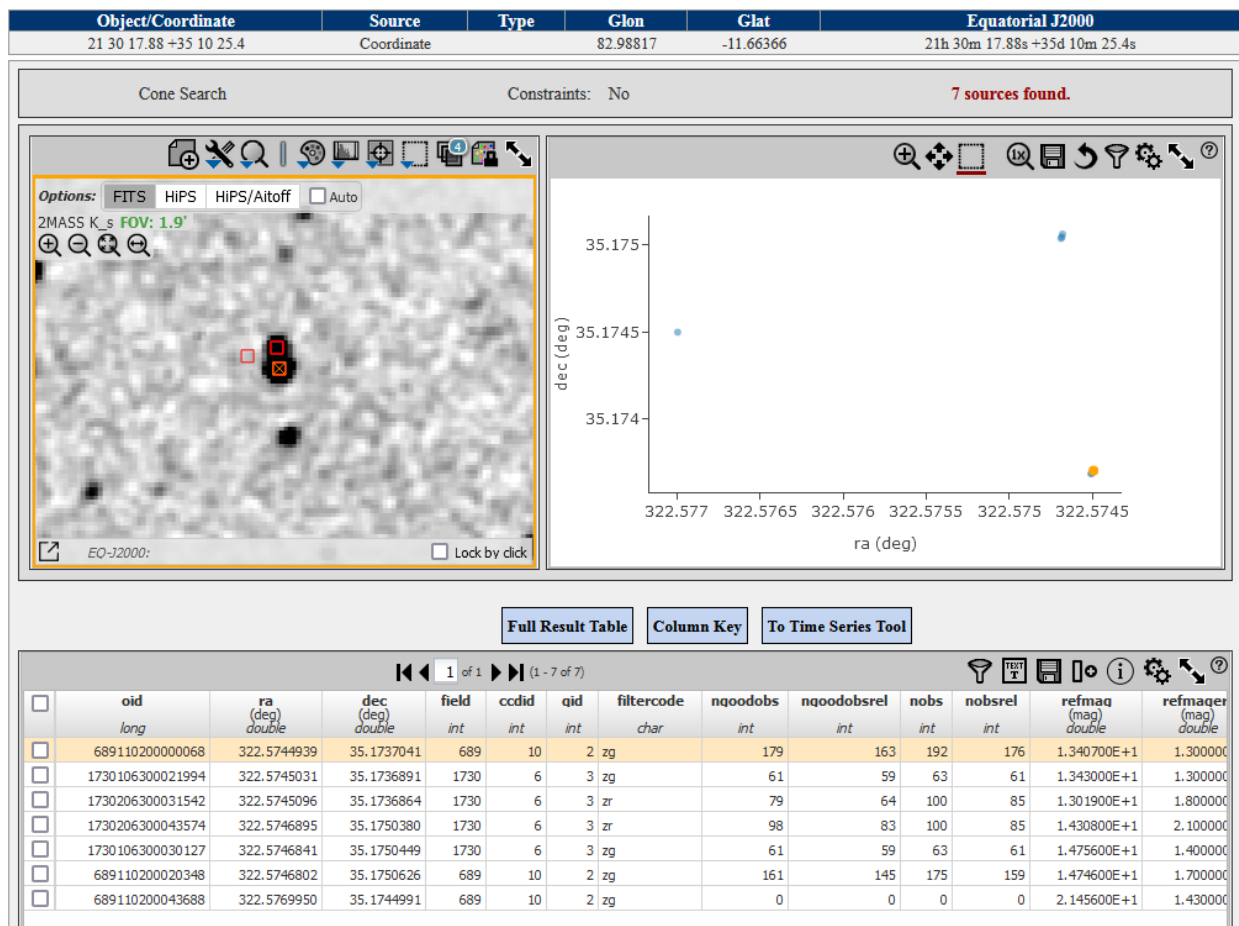
☐ [Box:](#)

Size: arcsec
(0<Size≤1200)

☐ [Polygon:](#)

Vertices:

You will see a sky image of the vicinity of the object (it can be zoomed in with the mouse or by clicking on the appropriate toolbar icon).

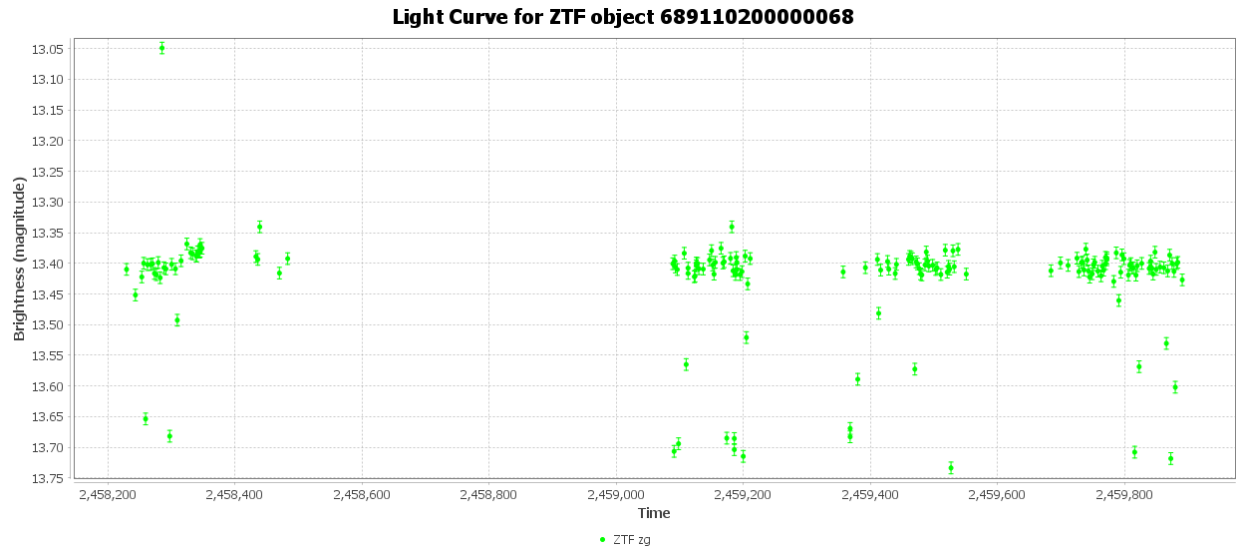


In the table below the image, you can see object identifiers (oid). Take one that corresponds to your object [There can be several IDs that belong to the object. Using “additive load” (see below) you can utilize them all]

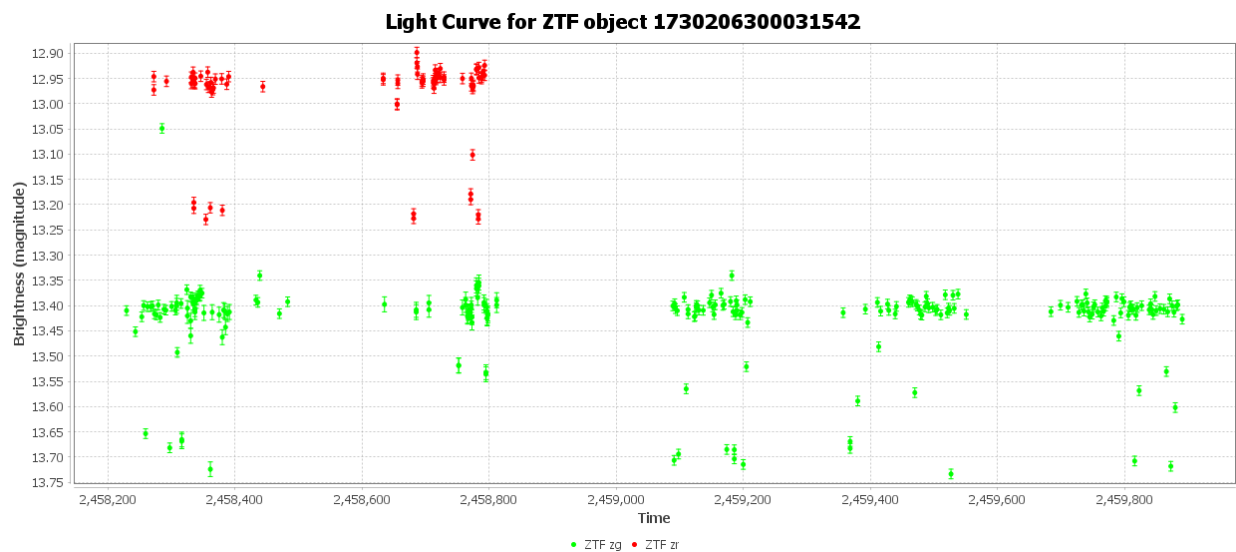
Select “New star from ZTF Photometry” on the VStar file menu to open the dialog box. Put a ZTF ID in the upper field.

The screenshot shows the 'ZTF Object' dialog box. It has a title bar with a star icon and the text 'ZTF Object'. The dialog contains three input fields: 'ZTF object ID' with the value '689110200000068', 'VeLa Filter', and 'Additive Load'. Below the 'Additive Load' field is a checkbox labeled 'Add to current?'. At the bottom are 'Cancel' and 'OK' buttons.

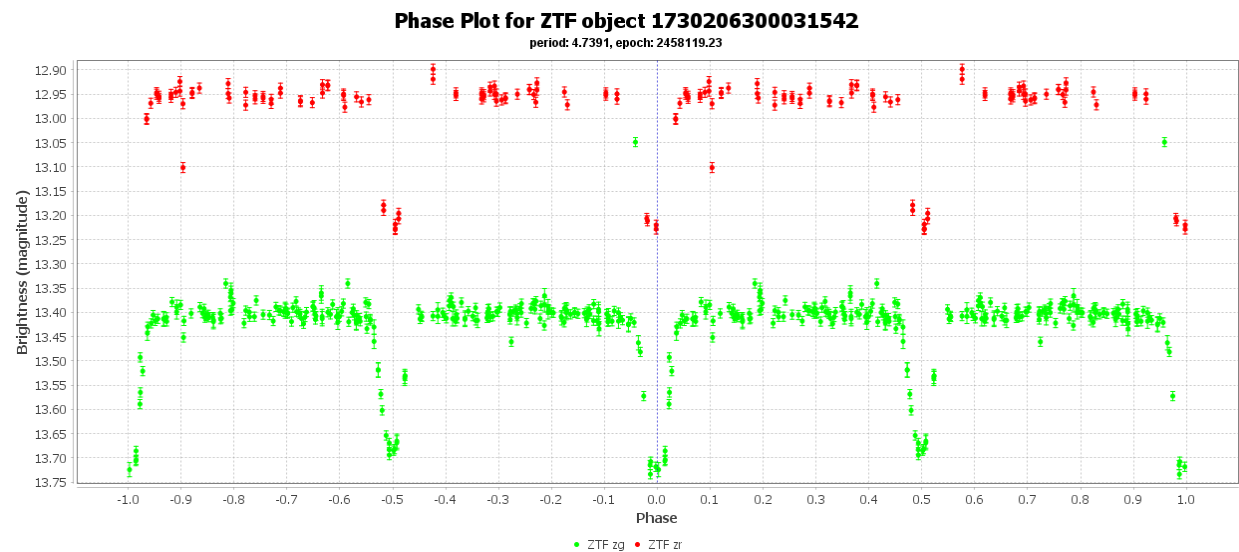
You can also choose to add the light curve data to the existing VStar observations by checking the “Add to current?” checkbox. Then press the [OK] button. The light curve should appear in the plot pane:



Similarly, you can import additional ZTF observations for the star using ZTF IDs for it with the additive load (checking the “Add to current?” checkbox while loading). Here is the result of additive loading data for the IDs 1730106300021994 and 1730206300031542:



In our example, we used the EA star PMAK V5 with a period of 4.7391 days. Here is the phase plot:



Revision History

| Rev | Date | Description | Author |
|-----|-------------|-----------------|---------------------------|
| A | 05 Mar 2023 | Initial release | Maksym Pyatnytskyy (PMAK) |