A major release of votable.js, the VOTable Javascript parser

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Outline

Context and what it can do (and not yet)

API / On Gitlab

Implementation references

Perspectives

□ Context

- A work started in September 2014 and used in the new VizieR main Web interface which was under development.

- The aim was to do the parsing on the frontend (the backend providing only the VOTable files).

- The Binary format parsing was taken into account as a main feature of the parser.

What it can do..

- Handling of VOTable format (with prefix or not) and designed to parse TABLEDATA and BINARY.

- Parsing of the whole field of values given by the VOTable documentation (boolean, bit, unsignedByte, short, int, long, char, unicodeChar, float, double, floatComplex, doubleComplex).

- Taking into account of the null value (represented by a magical number) and the precision for the float, double, floatComplex and doubleComplex types.

- Parsing of arrays (with one or more dimensions, with fixed length or not).

☐ What it can do.. (2)

- GROUPs parsing.

- Taking in account of the PARAMrefs and FIELDrefs fields, and replaces them by their real equivalent when parsing the metadata.

- No specific internal model, use of JSON for the standard encoding.

- For binary encoding, loading of the binary part in a object and decoding on demand, flexible to let people adapt it to their needs.

- Set of Getter

- Small: 57 KB

☐ What it cannot (yet) do..

- Parsing of multidimensional arrays of chars or unicode Chars.

- Link PARAMrefs located in a sub-group that references a PARAM not located in the VOTable / resource / table parent but in a parent GROUP

  – The ref attribute of the PARAMref element can only be a reference to a param defined as a direct child of the VOTable / resource / table parents elements.

- Association of a null value to a specific element of an array (i.e. for an array, either the whole array is null and is equal to the null value, or none of its values is null). Concerning the specific cases, have a look at the code for further explanation.

□ API / On Gitlab

- https://gitlab.com/cdsdevcorner/votable.js

- Resources to test it available on the gitlab repository (with also a comparison with the previous release)

- Important remark: the previous version available on GitHub will be removed and is now obsolete.
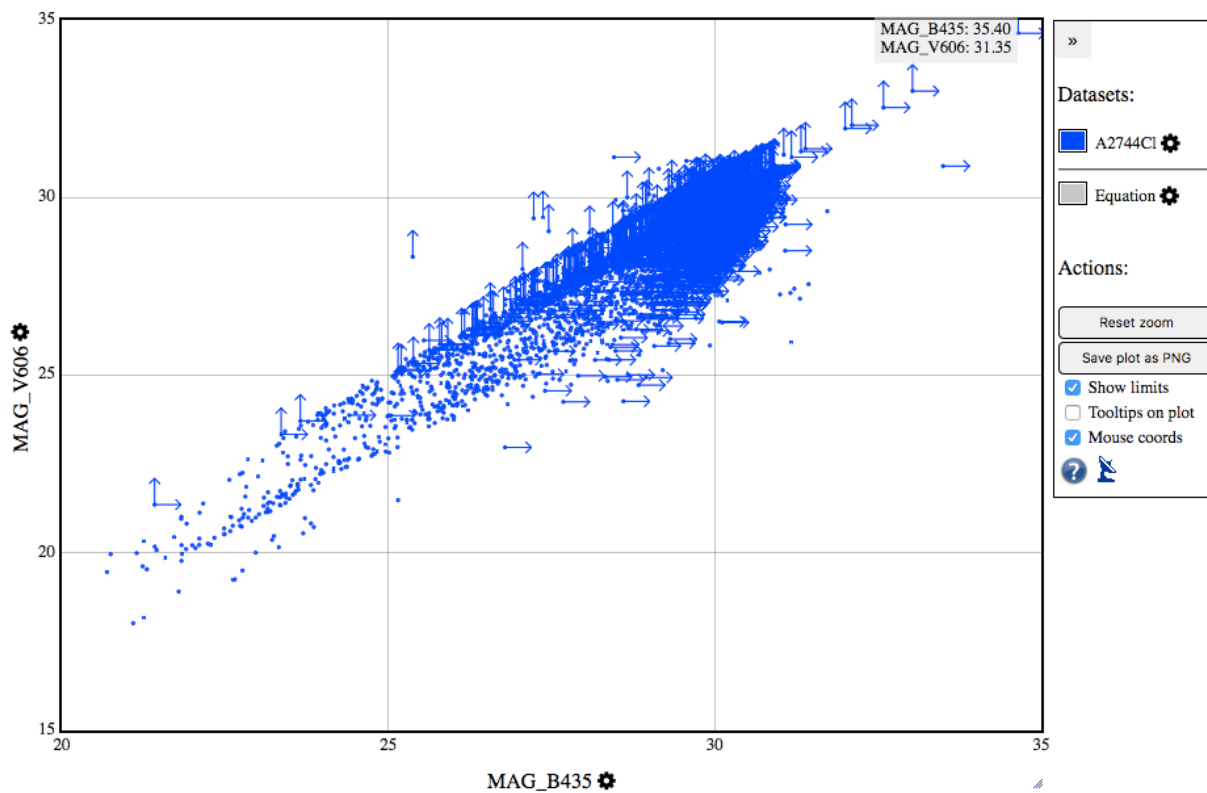
References

New CDS (not yet published) Portal

Parsing of the Cone Search, SIA and SSA
query results
(example: all Hipparcos (118,000)
sources parsed)

References (2)

http://astrodeep.u-strasbg.fr/ff/
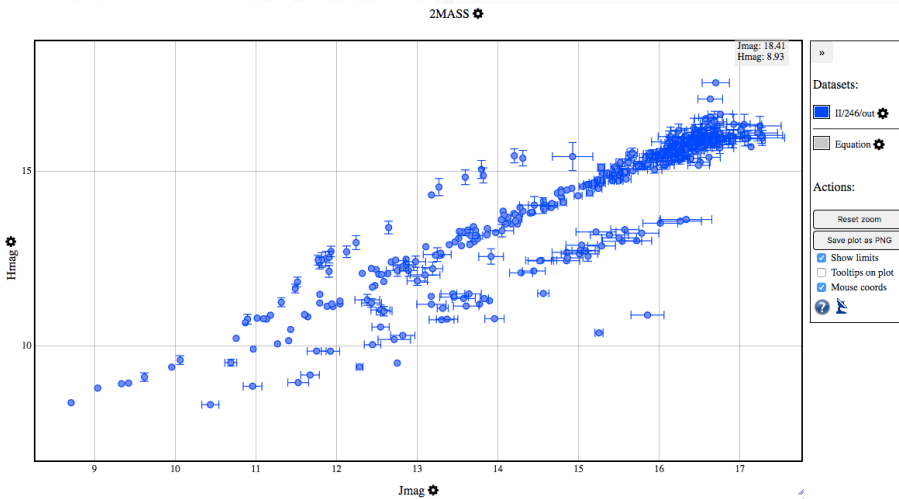
References (3)

- Will be used in Aladin Lite.

- ... we can provide help if you want to test it.

- Following the importance of the parser in these references, it will be well maintained and follow the VOTable evolution. Not dependant from one developer.

Perpectives

- Mainly maintenance

- Best effort => integrate what it can not do if really needed

- Remark: most of the source codes (available for example on the CDS devcorner) will be moved the gitlab repository