

Data2Dome

Education Session

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CENTRE DE DONNÉES
ASTRONOMIQUES DE STRASBOURG

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□ Outline

Context

Data2Dome ?

Use cases

Remarks

A few ideas

Discussion

□ Context

- Important: We are not involved in the project and it is “not on behalf of”.
- We explore since a few years what could be moved to the outreach side and especially to Planetariums
- ... and we had a discussion about Data2Dome 2 weeks ago
- We have a few remarks and questions

□ Data2Dome ?



DATA2DOME

<http://www.data2dome.org/>

□ Data2Dome ? (2)

- Initiative from the “Science & Data visualization task force”, IPS (International Planetarium Society) and ESO
 - <http://www.ips-planetarium.org/?page=visualization>
- Press release oriented but an aim is to visualize data
 - <http://lipsymposium.org/LIPS/>
 - <https://github.com/IPSScienceVisualization/Workshops/tree/master/Tokyo2017>

□ Data2Dome ? (3)

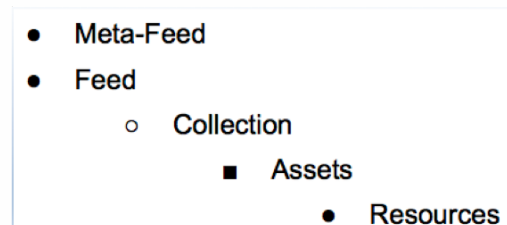
- Data to Dome at NAOJ in March 2017
 - « The modern, networked, **digital planetarium is a world-class big data visualization facility**. The goal of this workshop is to bring **together** members of the **astronomy** and **planetarium** communities to work on solving problems related to **visualizing big data in the planetarium.....** »
 - <http://prc.nao.ac.jp/fukyu/dtod/>

□ Use cases

- At Space Visualization Lab, Adler Planetarium of Chicago
 - <http://www.adlerplanetarium.org/whats-here/dont-miss/space-visualization-lab/>
- ESO Supernova
 - <https://supernova.eso.org/>

□ Remarks

- Use of AVM (Astronomy Visualization Metadata) to tag images in several formats
- AVM appears as an IVOA Note in a release candidate status since 2008 (?)
 - https://www.virtualastronomy.org/AVM_DRAFTVersion12_rlh02.pdf
- JSON format
 - https://docs.google.com/document/d/1USG1cInxSyGf9lsDe-alb6nZzxn_xFzxbjCnSVPzIWU/edit

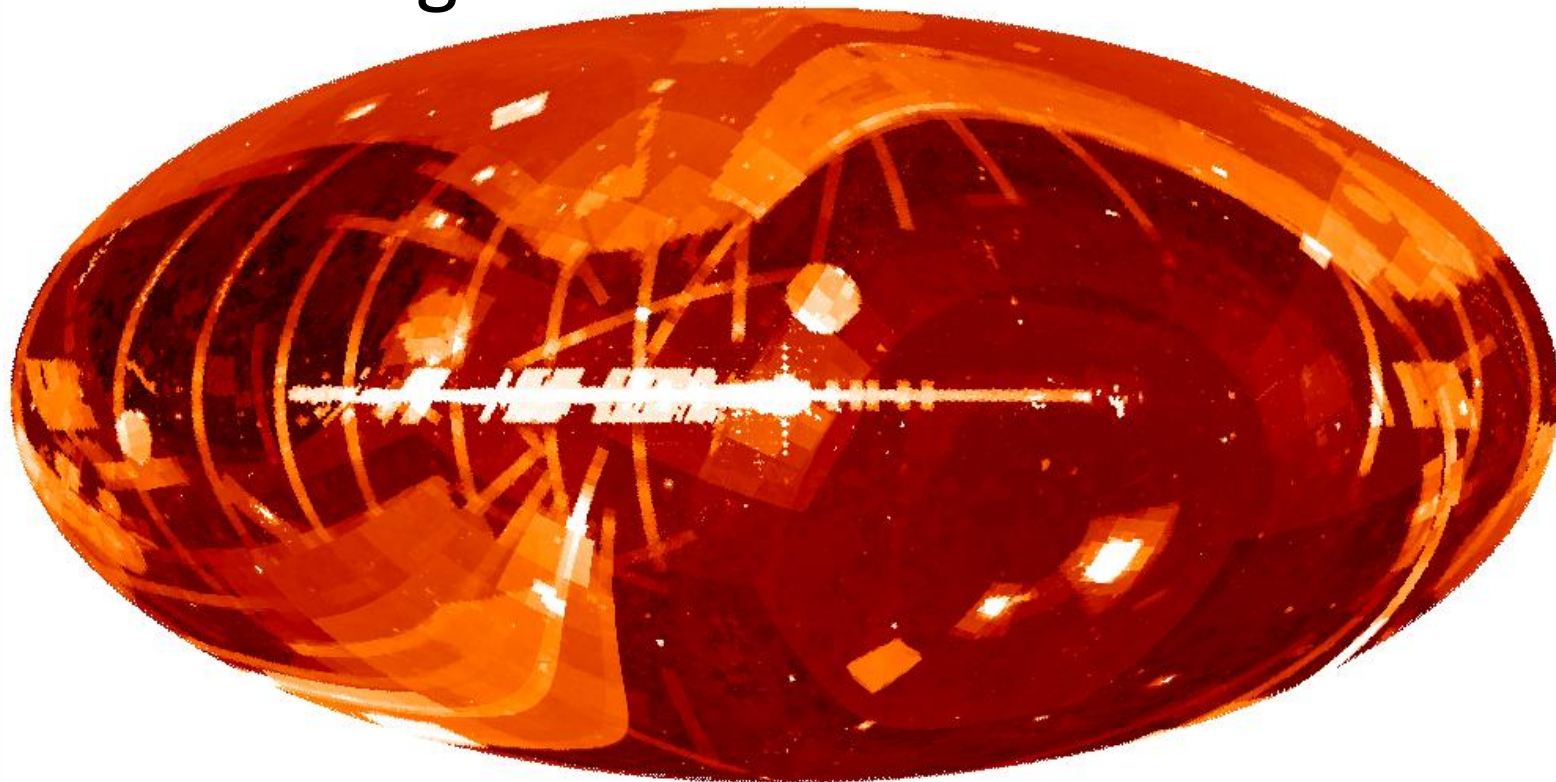


□ Remarks (2)

- An open format “understandable” by the major providers of Planetarium technologies ?
- If yes, it means that we have just to focus on the data, the code side is managed directly by these providers (for example, no fish-eye to implement)

□ A few ideas

- VizieR catalogues

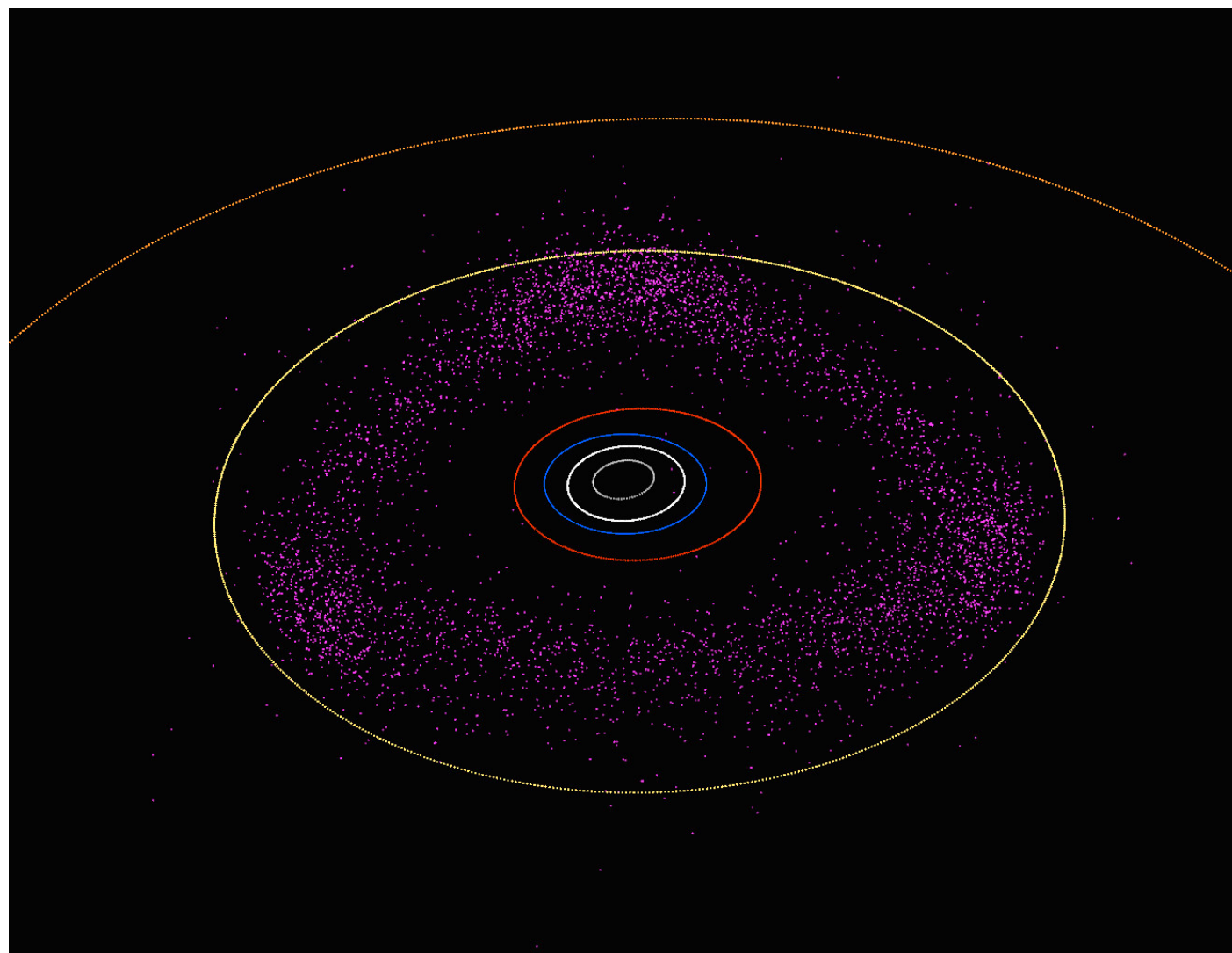


This image of the sky is a representation of the density of the objects accessible in VizieR

□ A few ideas (2)

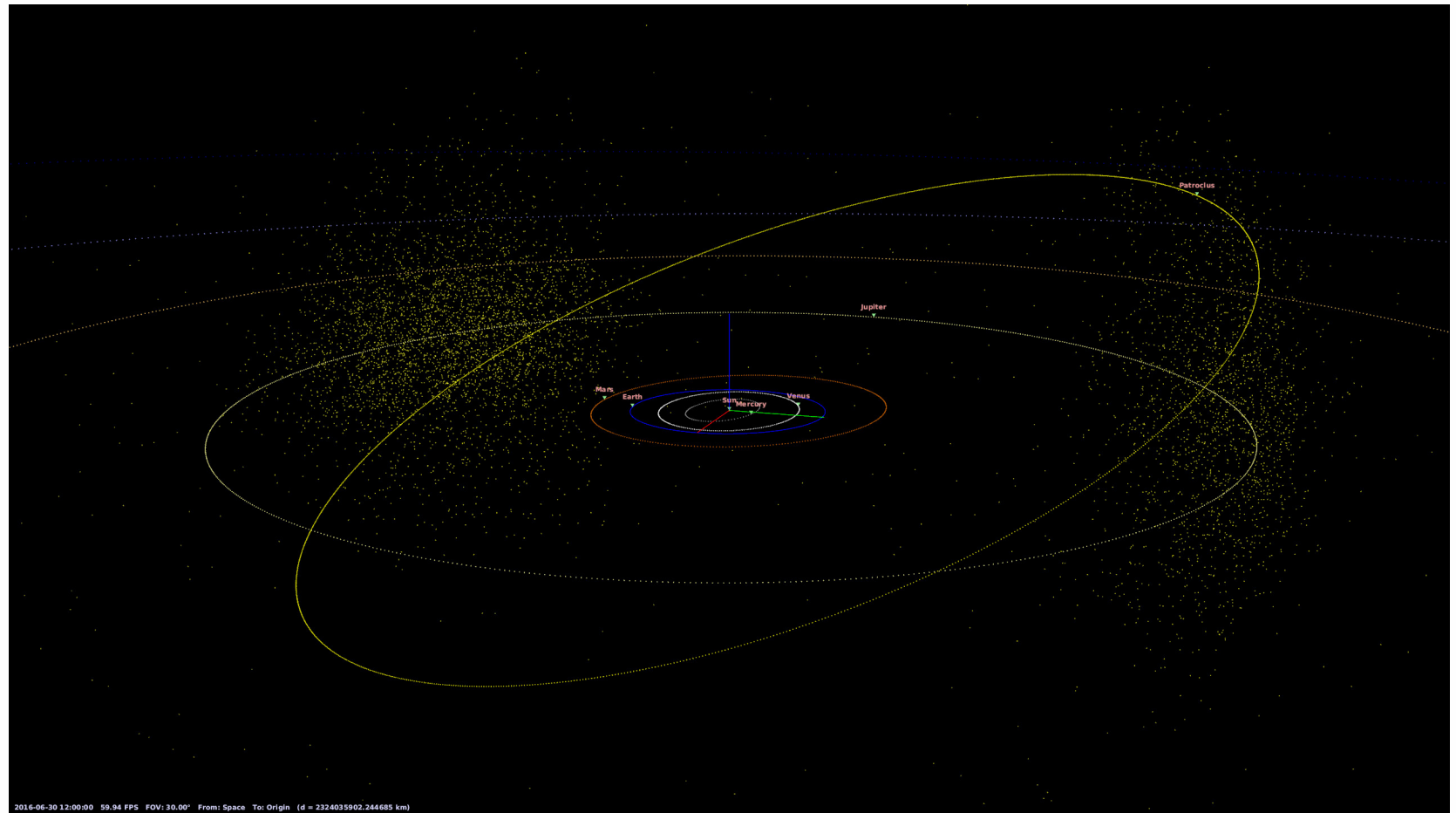
IMCCE

Representation of the
Solar System - the
Hilda family of
asteroids (Skybot3D)



□ A few ideas (3)

IMCCE



3D representation of the Solar System - the Trojan family of asteroids and the orbit of (617) Patroclus (Skybot3D)

□ Discussion

- Who is involved ?
- Interest in the frame of IVOA ?
 - If yes, how ?