

Euro-VO Technical Work

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on behalf of the Euro-VO Project

AIDA Technical Work Packages

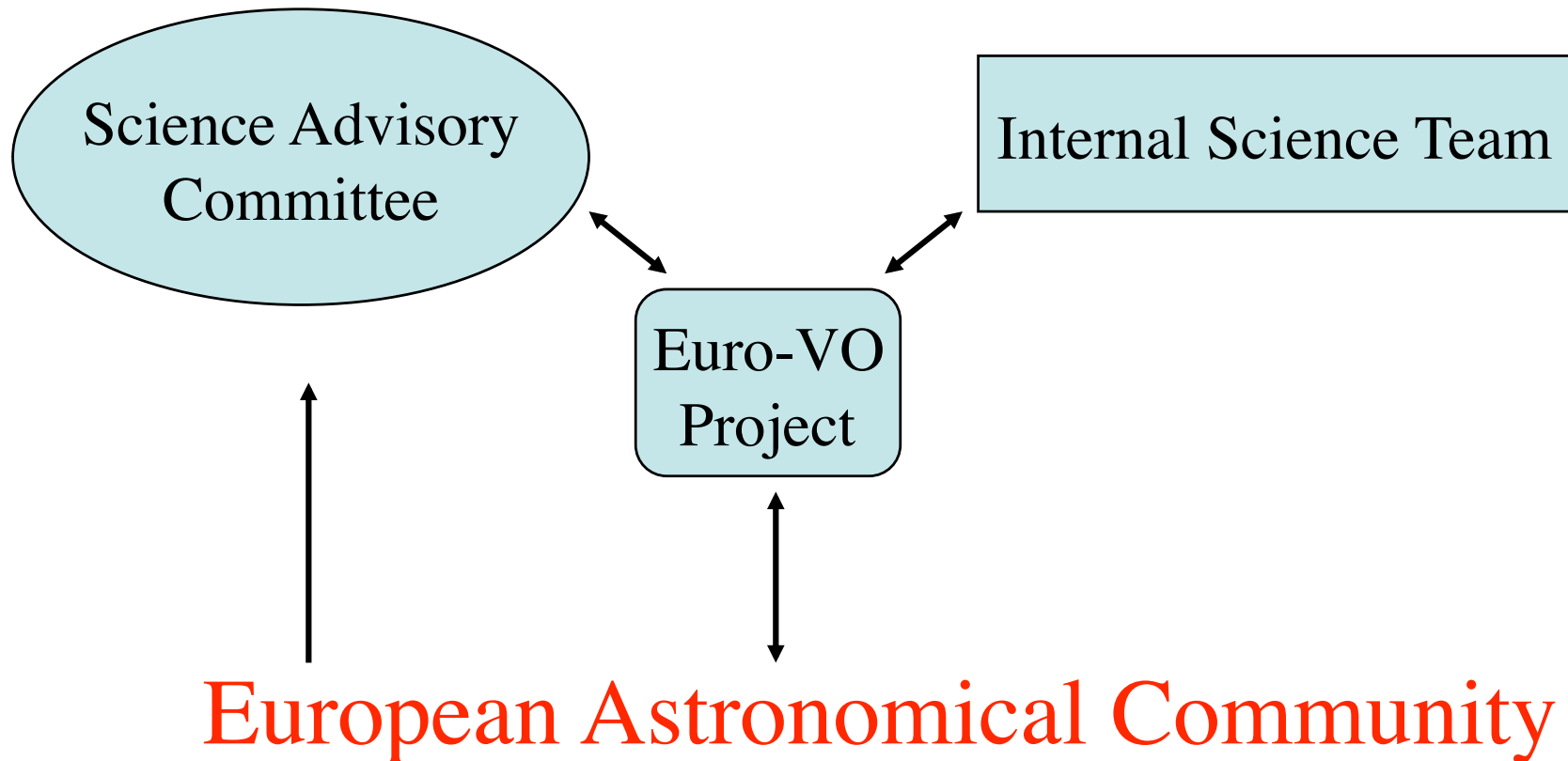
- WP6: Evolution of VO interoperability standards
 - Technical standards and protocols required for Euro-VO; requirements to the IVOA; prototype software implementing the draft standards; conclude international agreement on the necessary standards; ensure that deployments within Euro-VO are compatible with IVOA standards.
- WP7: Data Access Protocols and Data Models
 - Perform studies for Data Access, Data Model and VO Query Language protocols and standards in the context of the IVOA working groups.
- WP8: Assessment of emerging technologies
 - Web 2.0, semantics and ontologies, data mining.

More details at <http://cds.u-strasbg.fr/twikiAIDA/bin/view/EuroVOAIDA/WebHome>

AIDA Technical Work Process

- AIDA Technical Forums: technology exchange between partners
 - Third Technology Forum, Strasbourg, Mar. 16 – 18:
<http://cds.u-strasbg.fr/twikiAIDA/bin/view/EuroVOAIDA/ThirdTechnologyForum>
 - Fourth Technology Forum, Trieste, Sept. 22 – 24:
<http://cds.u-strasbg.fr/twikiAIDA/bin/view/EuroVOAIDA/FourthTechnologyForum>

AIDA Technical Work: Scientific Guidance



AIDA Internal Science Team

Mark Allen	CNRS
Deborah Baines	ESA
Evanthia Hatziminaoglou (as WP4 Lead)	ESO
Giuseppe Longo	INAF
Eduardo Martin	INTA
Paolo Padovani (Chair)	ESO
Gijs Verdoes Kleijn	RUG
Nic Walton	UEDIN
Joachim Wambsganss	UHEI

AIDA Technical Work: Scientific Guidance

- Meeting between Internal Science Team and developers held at ESAC on Nov. 18 (all day). Purpose:
 - for scientists to provide input on VO tools based on science needs, gathered from the Schools, Workshops, Research Initiatives, etc.
 - for developers to discuss interaction with scientists
 - for both to discuss the Photometry AIDA effort
- The meeting was very successful and will be repeated early next year

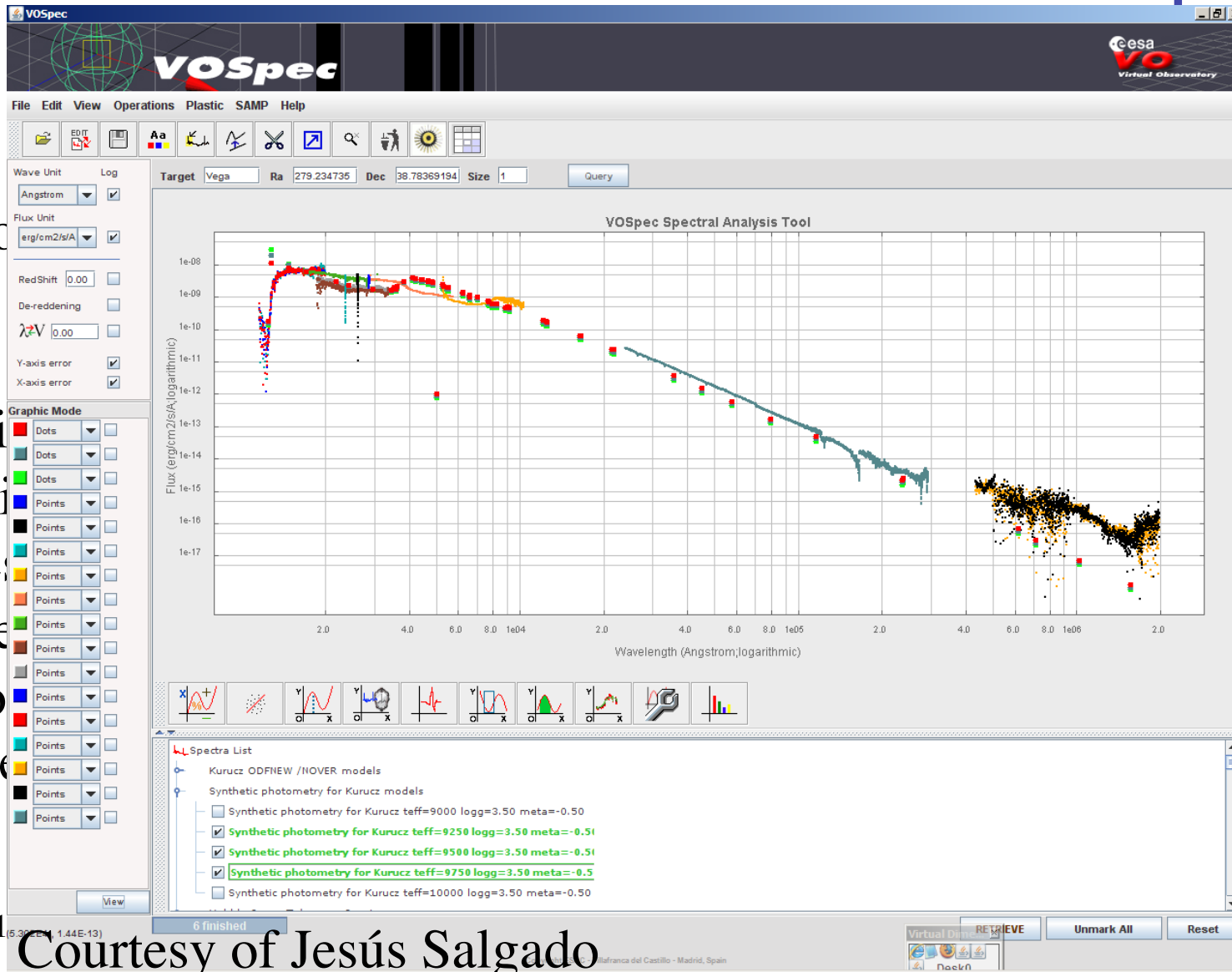
AIDA Technical Work: an example

Photometry Data Model

- Scientific need: build a Spectral Energy Distribution (SED)
- If data are already in flux units, then there is no problem, assuming VO spectral tools can deal with them
- If some of the data points are in magnitudes, then they need first to be converted to fluxes
- In the simplest cases, since $m = -2.5 * \log(\text{flux}) + K$, conversion to flux requires only 2 numbers: the effective frequency and the “zero point”
- For more accurate results, one needs to do a calculation which involves the instrument transmission curve and the source spectrum
- The precision required is typically inversely proportional to the frequency span covered; but it all depends on the final science goal
- SEDs can also be needed for many (thousands) objects

AIDA Technical Work: an example

- Photometry
- ✓
- ✓
- This is the first step, which provides the raw data.
- The next step is to reduce the data to a single spectrum.
- Work on the spectrum to determine the parameters of the star.



Dec. 1

Courtesy of Jesús Salgado

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