WORKFLOW WORKING GROUP IN THE FRAME OF ASOV

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Abstract. Started in 2005 in the frame of the french Action Spécifique Observatoire Virtuel, the aim of the Workflow Working Group is to provide Workflow use cases in several domains (image, spectrum, etc.) and to improve them with VO (or other) existing tools. Another important point is to develop collaborations with people from the IT community (links to EGEE, ...). The last meeting (16 June 2006) was organised in Paris at IAP involving about thirty participants.

1 (Our) Workflow definition

Sequence of tasks realized in a controlled context (at various levels: intelligence in the choice of the algorithms, flow control, etc.), based on use cases studies, in an Architecture which takes into account VO standards.

2 Why use cases

Use cases are useful to compare the pertinence of the possible models for a workflow and to understand how to implement it (with most efficiency) with the existing tools (ex. : AstroGrid, AÏDA, WebCom-G, etc.). The execution (local machine, cluster, grid) through this kind of tools and the use of VO functionalities (Web Services, GRID, VOSpace, etc.) becomes almost transparent.

3 Example of request in the case of single band images

Operations : detection and evaluation of related objects in single band images

Subjacent model : diffuse disjoined tasks in emission on a background slowly variable without defects

Adopted method :

- cartography of the background

- thresholding by segmentation

- adjustment of an ellipse of form

- evaluation of the azimuthal profile of brightness

- calculation of form and flow measurements

Fig. 1 shows the implementation with AÏDA (Astronomical Image processIng Distribution Architecture developed at CDS)

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4   Objectives

During the 2006-2007 period we will focus on the following topics :

- Extension of the use case definition to other domains

- Definition of the common parts of use cases (spectrum, image, etc.) and creation of a modules library

- Continuation and development of the interaction with the IT community

- Promotion of the work at the IVOA interop meetings

5   Working Group Web to follow the work

All informations concerning the working group are available on the OV France TWiki at :
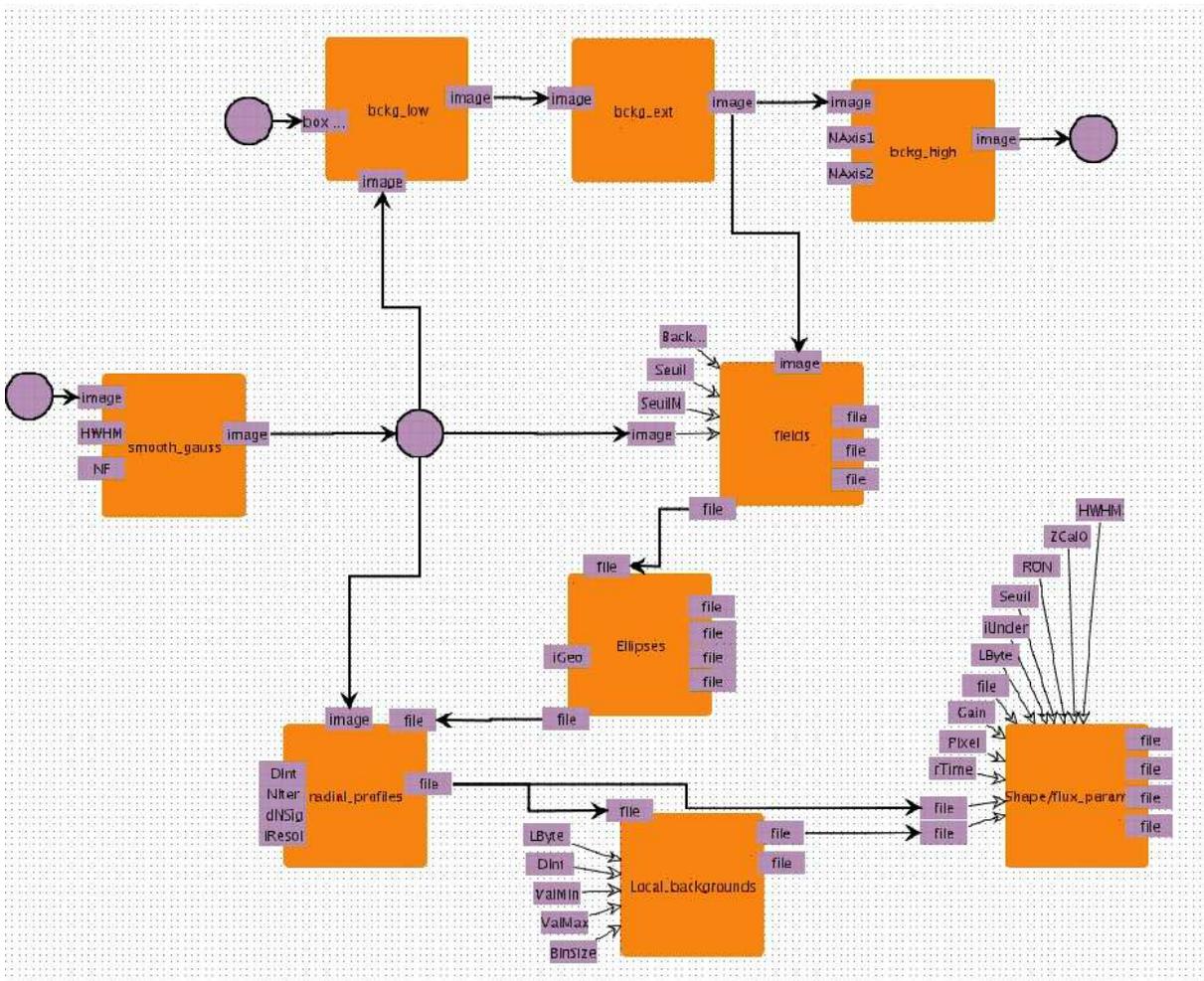
http://www.france-ov.org/twiki/bin/view/GROUPEStravail/Workflow

Fig. 1. A solution with AÏDA.