More and more astronomers are gathering astronomical data to cross-match results with catalogues in different energy ranges. This implies handling data from possible unfamiliar fields of astronomy and their associated dedicated software and providing all functionalities in a easier way.

delivering products to providing a complete solution for the non-expert astronomer, offering a complete suite of programs to reduce and analyze XMM-Newton data or any other data set, without having to install any that allows the user to reduce data from different energy ranges in a transparent way.

SUMMARY:
RISA is a true VO compliant application able to perform full data reduction of XMM-Newton observations in a GRID architecture. Our goal, using this approach, is to move beyond the paradigm of simply delivering products to providing a complete solution for the non-expert astronomer, offering a complete suite of programs to reduce and analyze XMM-Newton data or any other data set, without having to install any software design is based on the client/server paradigm (using axis and tomcat server to deploy the application) and it has been developed to be used in GRID environments, but it can be easily adapted to any other system architecture such as cluster or cloud computing. The system allows the user to search for any XMM-Newton data (pointing or slew observation) using SIAP protocols and name resolver services. The application has been designed as a mission independent analysis tool, being possible to implement tasks and workflows from different missions.

The RISA client is able to work with raw XMM-Newton data or it can be also used starting with pipeline processed files. The user can create tailored workflows fully configurable or can also select predefined workflows that automatically produce XMM-Newton images, spectra, light curves or source lists. The results can be sent through SAMP messages to viewer applications such as VoSpec or ds9. Finally, the user can retrieve the data when the jobs have finished.

**RISA IN ACTION...**

**START NEW SESSION**
Load an existing RI A workflow or Save your current workflow for future use.

**SELECT OBSERVATIONS**
Have a look to the details of your observation clicking on the **Show Info** button.
Select the observations you want to analyze by clicking the checkbox button.
Then select the type of XMM-Newton data you want to analyze:
- Raw Data: ODF
- Pipeline Products: PPS

**CREATE WORKFLOW I**
Select your Tasks from the SAS Tasks window.
This window guides you enabling or disabling tasks depending on the instruments you are working with.
Select a task and a new fully-configurable SAS parameter window will pop-up.

**CREATE WORKFLOW II**
RISA allows the user to create pre-defined workflows.
A new workflow window will pop-up with two different threads:
- psechain
delocal
Using psechain you can automatically create light curves or spectra, following standard filtering.

**GRID AND ARCHIVE**
Sending jobs to the GRID and retrieving data from the archive.
Finally, click on the **Submit** button to send the SIAP message.
When the job has finished, you can have a look at the error and output logs.
You can retrieve your products by clicking.
Thanks to SAMP you can also directly see your spectra or images.
Right click on the **Close Job** button, select your source name, and you will be able to see end spectra or images from the archive.

**SUMMARY:** RISA is a true VO compliant application able to perform full data reduction of XMM-Newton observations in a GRID architecture. Our goal using this approach, is to move beyond the paradigm of simply delivering products to providing a complete solution for the non-expert astronomer, offering a complete suite of programs to reduce and analyze XMM-Newton data or any other data set, without having to install any dedicated software and providing all functionalities in a easier way.

More and more astronomers are gathering astronomical data to cross-match results with catalogues in different energy ranges. This implies handling data from possible unfamiliar fields of astronomy and their associated software.

This new web interface to old software has been created to help non-expert astronomers to reduce and access astronomical data using flexible and intuitive applications. Providing a common and standardized framework that allows the user to reduce data from different energy ranges in a transparent way.

In the near future we will study the possibility of running these applications in a Cloud environment using middleware such as Open Nebula (http://www.opennebula.org/).

**CONTACT**
Aitor Ibarra Ibarbarraga (AIBARRA@SAS.EUROPEAN-SPACE.ORG)
Carlos Gabriel (gabriel@sciops.esa.int)

**ABSTRACT**
RISA software allows scientists to discover, download and reduce on-the-fly, XMM-Newton data without having to install any project specific software and it uses all XMM-Newton Science Analysis Software capabilities (parameter interface and image selection expressions). It has been coded taking into account the Virtual Observatory paradigm, taking advantage of VO protocols such as SAMP.

The software design is based on the client/server paradigm (using axis and tomcat server to deploy the application) and it has been developed to be used in GRID environments, but it can be easily adapted to any other system architecture such as cluster or cloud computing. The system allows the user to search for any XMM-Newton data (pointing or slew observation) using SIAP protocols and name resolver services. The application has been designed as a mission independent analysis tool, being possible to implement tasks and workflows from different missions.

The RISA client is able to work with raw XMM-Newton data or it can be also used starting with pipeline processed files. The user can create tailored workflows fully configurable or can also select predefined workflows that automatically produce XMM-Newton images, spectra, light curves or source lists. The results can be sent through SAMP messages to viewer applications such as VoSpec or ds9. Finally, the user can retrieve the data when the jobs have finished.