PORÍS: Practical-Oriented Representation for Instrument Systems

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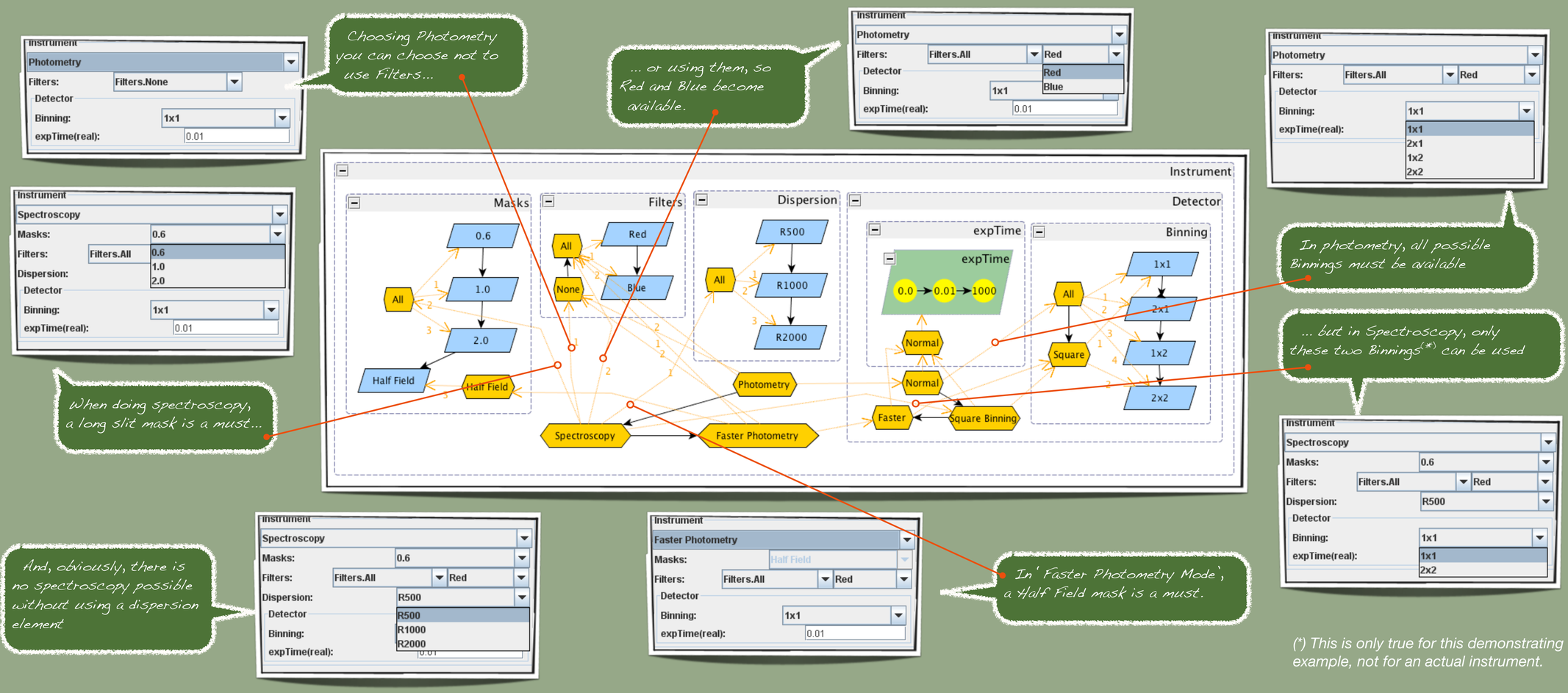
Abstract

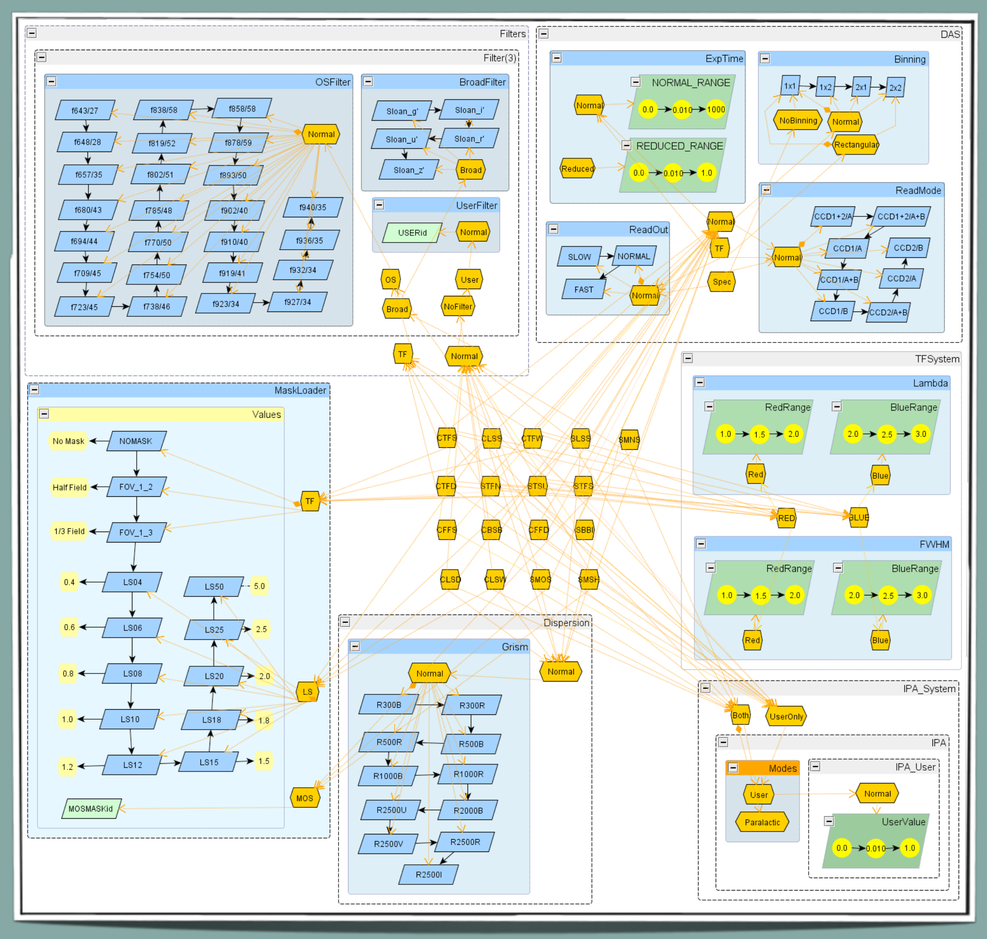
This article presents a toolkit for defining simple but powerful **systems**. PORIS toolkit is an open and extensible source collaborative project that allows describing graph-based systems and their behavior in a snapshot. It provides a web editor for a domain visual specific language **(DSL)** and transformation tools to generate software **prototypes**, instrument configurations, specific **user interfaces** and documentation. Different kind of **instruments**, like the astronomical ones, can be described and represented using PORIS specifications and **models**. A significant advantage of using PORIS toolkit is that it makes easy and lighter providing instant feedback to domain experts in the dynamic process of defining new instruments.

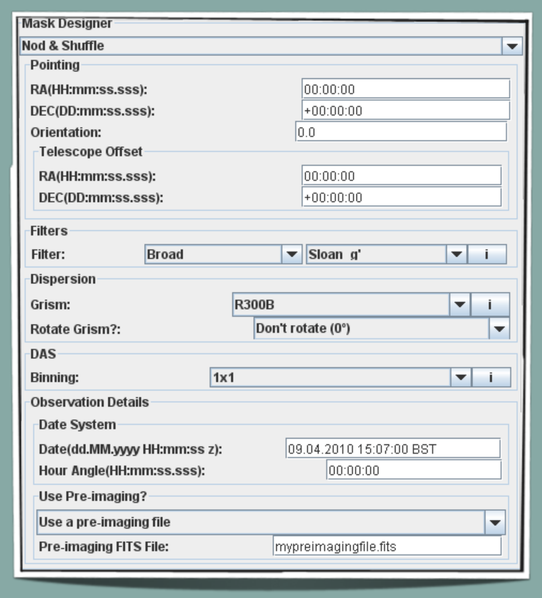
Using the PORIS language to 'sketch' the architecture and restrictions of an example of astronomical instrument:



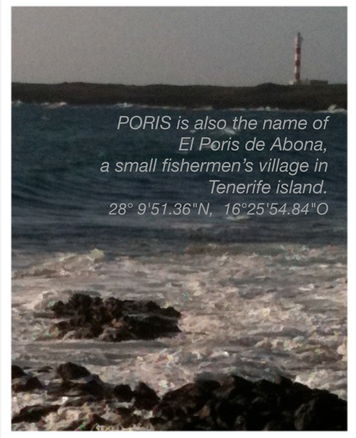
Development team enumerates instrument subsystems, modes, parameters, and values, and enunciates the mode restrictions.
The sketch represents this 'requirements dialog' in a single and understandable snapshot.
Feedback is instantly provided in the form of automatically generated configuration panels that observe the restrictions.
Absolutely no coding required.

Complex instruments are welcome





Panels can also be integrated into software projects, like the instrument's tools for preparing observations, instrument monitors, simulators, etc.



More information on PORIS toolkit and downloads:

http://www.elporis.com

Contact: txinto@iac.es

PORIS toolkit is an open source project, so it is freely distributable and modifications are allowed under GPL license.