TGCat : The Chandra Transmission Gratings Catalog and Archive

The newly released Chandra Transmission Grating Catalog and Archive, TGCat, presents a fully dynamic online catalog allowing users to browse and categorize Chandra gratings observations quickly and easily, generate custom plots of resulting response corrected spectra online without the need for special software and to download analysis ready products from multiple observations in one convenient operation. TGCat has been designed to take advantage of the convenience and power of modern browsers and servers to not only enrich the features available but also provide better access to helpful resources relating to searches and returned values. TGCat has been registered as a VO resource with the NVO providing direct access to the catalogs interface. Currently under development are Simple Cone Search and a Simple Image Access interfaces compliant with NVO standards and we intend to provide spectra via the Simple Spectral Access protocol. The catalog is supported by a back-end designed to automatically fetch newly public data, process , archive and catalog them, At the same time utilizing an advanced queue system integrated into the archive's MySQL database allowing large processing projects including reprocessing, several planned feature additions, and the event of catastrophic data loss, to take advantage of an unlimited number of CPUs across a network. A unique feature of the catalog is that all of the high level functions used to retrieve inputs from the Chandra archive and to generate the final data products are available to the user in an S-Lang written library with detailed documentation. Here we present a structural overview of the Systems, Design, and Accessibility features of the catalog and archive

Systems, Design and Accessibility

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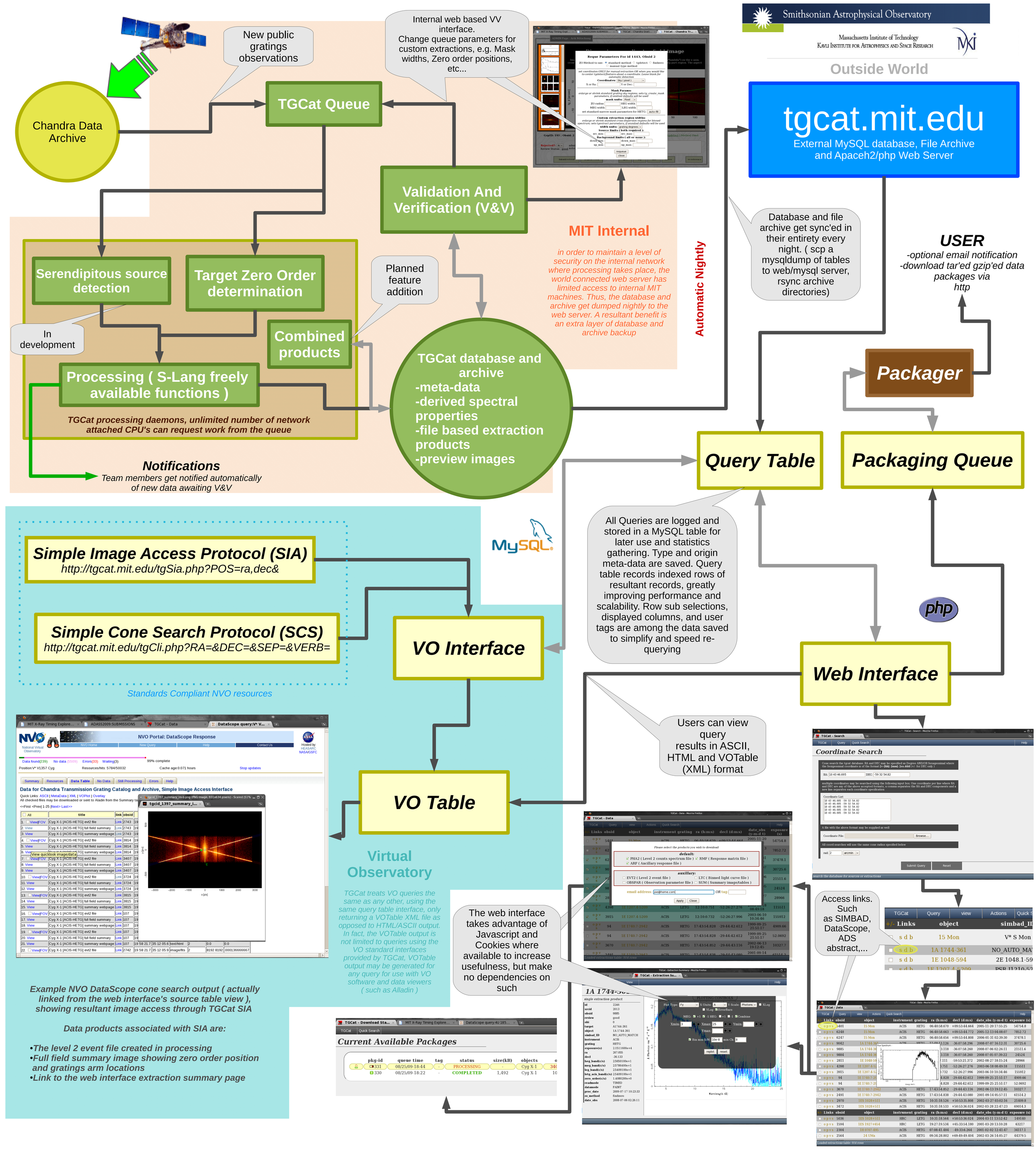
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