

Stack data processing pipeline

The Source Term Analysis of Xenon (STAX) project is a new effort to better understand the radioxenon background in the environment. This project aims to use high resolution stack detector systems to measure the four IMS relevant radioxenons (Xe-131m, Xe-133m, Xe-133 and Xe-135) from fission based Mo-99 production facilities. The data pipeline from the collection of the raw data to the automatic analysis of the data at a centralized data repository involves many steps. Some of these steps include data conversion to a standardized format, secure data transmission, encryption, data receiving and parsing, and automated spectral analysis. The overall data pipeline will be described, as well as a graphical user interface for basic viewing of stack release data.

Primary author: AUER, Matthias (Instrumental Software Technologies, Inc. (ISTI))

Presenter: AUER, Matthias (Instrumental Software Technologies, Inc. (ISTI))

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