STIX (Spectrometer Telescope for Imaging X-rays) is the Hard X-ray instrument on Solar Orbiter. STIX aims to study the acceleration of solar electrons and their propagation into interplanetary space. At Graz we are involved in the development of the software for the operation of STIX, and the analysis of its data. The ground analysis software will allow scientists to analyse STIX data, in terms of spectroscopy, imaging and imaging-spectroscopy. The flight software is critical for STIX, due to the limited bandwidth, and we are thus also involved in simulations and testing in support of this. In particular, we are focused on tasks relating to spectroscopy and calibration. This includes modelling of the detector response and measuring the calibration of each detector, using the position of the calibration lines in the low-latency background spectra. In order to fully test our simulations of the instrument, flight software and ground analysis software, end-to-end testing of the spectroscopy data product, using simulated data has been performed. RHESSI data is used as a starting point to provide realistic input into our simulations. This is then processed through the full software chain. The data is then analysed using OSPEX (Object Spectral Executive), an interface which been used extensively in the analysis of solar HXR data.