IRIS EPO has developed a cross-platform software package jAmaSeis that enables students to access real-time earthquake waveform data in a classroom setting or allow departments to set up a lobby display streaming real-time seismic data. Students, ranging from undergraduates to middle schoolers, can watch as seismic waves are recorded on their computer, and use real data to apply classroom techniques of analyzing data from an earthquake. Arming students with the ability to view and explore recordings of significant and newsworthy earthquakes in real-time makes seismology even more compelling.

jAmaSeis facilitates student centered investigations of seismological concepts from any seismic station that sends data to the IRIS DMC or a local or remote educational station. After an earthquake, students can analyze the seismograms to determine characteristics of earthquakes such as time of occurrence, distance from the epicenter to the station, magnitude, and location. The software has been designed to provide graphical clues to guide students, and includes tools such as filtering and FFT to aid in the analysis and assist in their interpretations. Since jAmaSeis can simultaneously record up to three stations from anywhere on the planet, there are numerous opportunities for student driven investigations. For example, students can explore differences in the seismograms from different distances from an earthquake and compare waveforms from different azimuthal directions. Students can simultaneously monitor seismicity at a tectonic plate boundary and in the middle of the plate regardless of their location. This can help students discover for themselves the ideas underlying seismic wave propagation, regional earthquake hazards, magnitude-frequency relationships, and the details of plate tectonics. The real-time nature of the data keeps the investigations dynamic, and offers students countless opportunities to explore.