Many organizations (academia, industry and government) make high quality satellite components; however, very few organizations make entire satellites well. Those that can successfully create entire satellites, often take years to design and deploy "Swiss watch," one-of-a-kind satellites. The federal government wants a way to capitalize on all of these organization's quality components in a quick and efficient manner. To be more responsive to the military and emergency responder's needs, rapid satellite development and deployment is critical. There is a need for a method to go from pushbutton mission design to off the shelf components (that all seamlessly integrate) in a rapid fashion. Under sponsorship by the Operationally Responsive Space (ORS) office, the Air Force Research Laboratory (AFRL) developed a modular, nanosatellite, plug-and-play (PnP) approach where hardware and software modules can be rapidly merged to form functional satellites. The Stanford/Cal Poly CubeSat and Poly-Picosatellite Orbital Dispenser (PPOD) standards have revolutionized the way that small satellites are developed and deployed. AFRL wants to capitalize on this momentum to advance the concepts and goals of rapid space. Small satellites are an excellent test bed for larger spacecraft. The combination of the AFRL's PnP design paradigm and the CubeSat standards has resulted in the creation of a CubeFlow program and CubeFlow training. The basis of the electrical and software infrastructure is the AFRL Space PnP Avionics (SPA) technology. Many have complained about the complexity of developing components that conform to the SPA standards. To alleviate this, a secure, web-based, design system has been created that allows convenient access for developing design configurations and coordinating the offerings of a community of component developers. This system provides a simple development flow through which component manufacturers can easily and efficiently create a PnP module. This stems from the idea that minimizing the amount of code that a developer must produce and also minimizing human error through constant validation will greatly increase efficiency. The hope is that those trained in the CubeFlow courses will gain the skills needed to produce useful PnP components and allow the PnP community to expand. Currently, there are a number of organizations and universities that have expressed interest in nano-satellite programs and rapid space development. CubeFlow is intended to address the issue that, due to lack of funding or capability, it is rare that a single organization or university would be able to research and develop all the necessary components for a small satellite. If a community can be built around an accepted standard such as PnP, then it may be possible to coordinate efforts in such a way that no longer would a single entity be tasked with the development of an entire satellite – but rather a single module or component. It is believed that this will not only lead to faster development, but higher quality satellites.