

Revolutionizing LEO Satellite tracking @ SPACE-SI

SPACE-SI with its strategic partners has re-invented the concept of LEO ground stations with a combination of innovation and strategic partnerships. From exploring new radio technologies, a new Antenna Control Unit, a revolutionary new antenna geometry to a new Feed design we have developed a new ground station, quite literally from the ground up!

Our ground stations far exceed other systems in almost every metric:

- more reliable,
- better performing,
- very low maintenance,
- environmentally immune,
- light weight,
- low power requirements,
- state of the art command and control API
- very low initial and life cycle costs.

We are bringing the cost of LEO tracking ground stations down to the point where they are affordable to most universities and small agencies.

New Antenna Control Unit

The new ACU uses the latest software techniques, runs under LINUX on a COTS Computer chassis. With performance and space to spare it is not only an ideal platform for customer enhancements but provides the most power and performance at the lowest cost of any ACU on the market.

High use of COTS components

By maximizing the use of COTS components we have drastically cut the initial and repair cost of the system, increased reliability, and virtually eliminated the need for expensive service contracts.

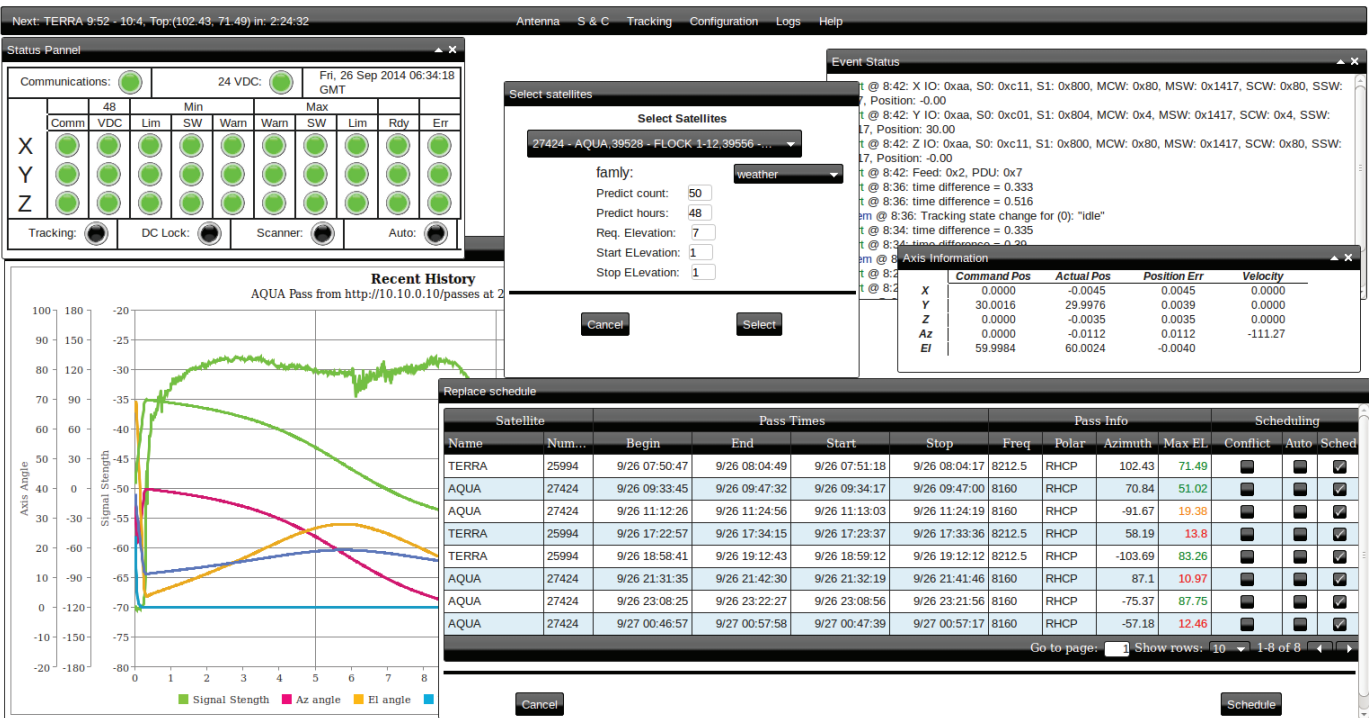
Single motor drive system

Our positioner uses a single motor drive system employing a special gear reduction system that results in far less than 0.01 degrees of backlash and very high pointing accuracy. Using a single motor system improves operation and reliability while cutting costs and complexity.



Software Defined Radio

With the use of Software Defined Radio concepts our system is drastically cutting the cost and requirements for specialized RF hardware offering great flexibility and virtually eliminating maintenance and technical support costs.



New Positioner Geometry

Our revolutionary "Slant-X" positioner geometry eliminates all keyholes with a single mode of operation and has full hemispherical coverage.

CNC manufacturing techniques

Almost completely manufactured by CNC machines out of aluminum and titanium we have eliminated the "human equation" in manufacturing tolerances and cost. Our components are manufactured to the highest standards of tolerance every time and the materials we use are the most environmentally stable at the lowest weight.

Revolutionary feed design

Our new patented monopulse feed is lightweight and offers excellent performance on S, C, X or dual S/X band.

Carbon fiber reflector

Our parabolic reflectors are made out of carbon fiber composites making the antenna system lightweight, easy to balance and rigid enough to keep the proper geometry regardless of its position. We offer reflector sizes from 2,4 to 9 m.