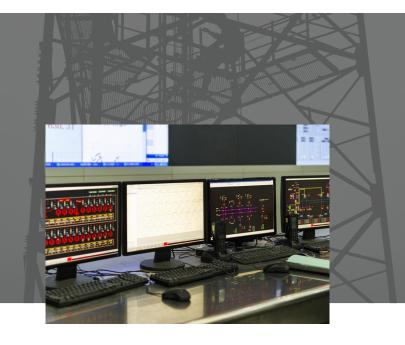


# Case Study

# **TimeTools Solutions**

Tallysman® and TimeTools Enhance Reliability for Highly Precise Time References



### Background

TimeTools servers are a leading source of highly precise time references for synchronizing computers and computer network infrastructure. They also provide a wide range of advanced digital and analogue time displays, synchronized by utilizing Network Time Protocol over Ethernet networks.

Their GNSS based network time servers and time references can precisely synchronize time on anything from a single PC to a network of thousands of workstations and servers. All TimeTools T-Series NTP servers are supplied with Tallysman antennas.

The T100 and T300 use the TW3040 (GPS), while the T550 uses the TW3740 (Single-Band Multi-GNSS).





TimeTools T100 and T300 Servers

## Challenge

Accurate and precise time synchronization has become an integral part of modern technology. Without precise time, cellular, electrical and computer networks would fail to function optimally. TimeTools faced the challenge to deliver precise and reliable timing applications in adverse conditions, such as harsh weather, interference, and long distances between antenna locations and time servers.







#### Customer

 TimeTools Ltd. https://timetoolsltd.com/



#### Tallysman Partner

 Innovelec https://innovelec.co.uk/



#### Application

Timing



#### **Featured Products**

- TW3040 Antenna
- TW3740 Antenna



# Case Study

Tallysman's precision engineered antennas, combined with excellent reliability, high gain and multi constellation options perfectly complements our range of top-quality, precision time servers.

Andy Shinton, Director of TimeTools Ltd.

#### Solution



#### TW3040 Single Band GNSS Antenna

The TW3040 is a professional grade, permanent mount GPS L1 antenna, specially designed for professional precision timing applications.



#### TW3740 Single Band GNSS Antenna

The TW3740 is a precision high gain GNSS antenna employing Tallyman's unique Accutenna® technology providing truly circular polarized signal reception.

Product	Coverage	Mount	Gain (dB typ.)	Weight (g)
TW3040	GPS L1	Through-Hole	40	150
TW3740	GPS L1, GLONASS G1, Galileo E1, BeiDou B1	Through-Hole	40	150

### **Success Story**

Tallysman's TW3040 and TW3740 met the demands of TimeTools' precise timing applications, providing high out-of-band signal rejection and high signal-to-noise ratio, delivering a clear GNSS signal with minimal interference. Both antennas offer high gain to avoid signal degradation between the antenna and the time server. Housed in a robust IP69K weather-proof enclosure, both antennas can operate in harsh weather conditions without compromising performance, ensuring TimeTools precise timing applications can deployed wordlwide.