

# High-end Total Stations

Compared to the 2004 product survey on total stations, this new survey includes some newly introduced and some upgraded and/or restyled existent models. The expected total station integrated with GPS or digital camera has not yet arrived.

In 2004 FOIF and South were introduced as new manufacturers. Then they seemed to represent the frontrunners of Asian and Russian companies entering the market for High-end [Total Station](#)s. However, up to now no additional newcomers have joined the club. South and FOIF have both extended their range of instruments.

## Integration

The integration of GPS technology and total station has not yet made the expected breakthrough. Leica's solution with top-mounted GPS receiver is a software match but the true integrated GPS Total Station still has to make its entry. The same is true for the integrated digital camera. Topcon is the only firm offering such a device; one that would seem to have much potential, both photogrammetric applications and to support the processing operator in the office by providing pictures of the survey site.

## Miniaturisation

Trimble has successfully restyled its instruments; they look good and are easy to handle. Although so many technological developments are associated with the keyword 'miniaturisation' (look at cellular phones), surveyors are still struggling with giant instruments. Miniaturisation would also enable the use of lighter tripods, which further reduces weight, making the life of the land surveyor a whole lot easier. Does miniaturisation somehow lie below the challenge horizon of designers of surveying equipment?

## Participating Companies

In the survey the following companies participated:

- **FOIF:** RTS702/RTS705, OTS632/OTS635, RTS632/RTS635
- **Leica Geosystems:** TPS1200 Series, TPS2000 Series
- **Nikon:** DTM-502, DTM-362/352/332, NPL-362/352/332
- **PENTAX:** R-322EX/R-323EX, R-315EX/R-322EX/ R-323EX/ R-332EX/ R-326EX/ R-315NX/R-322NX/ R-323NX/ R-325NX
- **SOKKIA:** Series230RM:SET3230RM/4230RM, Series030R: SET1030R3/2030R3/3030R3, Series130R: SET1130R3/2130R3/3130R3/4130R3, Series30RK: SET230RK3/330RK3/530RK3/230RK/330RK/530RK/630RK, Series30R: SET230R3/330R3/530R3/230R/330R/530R/630R, Series10: SET210/310/510/610
- **SOUTH:** NTS-320Series, NTS-350 Series, NTS-660 Series
- **Topcon:** GTS-2330 Series: GTS233/GTS-252N/GTS-236N/GTS-239N, GPT-3000LN Series: GPT3002LN/GPT-3003LN/GPT-3005LN/GPT-3007LN, GTS-720 Series: GTS-721/GTS-722/GTS-723/GTS-725, GPT-7000L Series: GPT-7001L/GPT-7002L/GPT-7003L/GPT-7005L, GPT-7001i Series: GPT7002i/GPT-7003i/GPT-7005i, GTS-820A Series: GTS-821A/GTS-822A/GTS-823A/GTS-825A, GPT-8200A Series: GPT-8201A/GPT-8202A/GPT-8203A/GPT-8205A
- **Trimble:**Trimble 3600 DR, Trimble 5600 IR, Trimble 5600 DR, Trimble S6