

New position data exchange formats now available



Photo courtesy of BP p.l.c.

IOGP has created two new position data exchange formats to replace the out-dated UK00A P1/90 and P2/94 formats.

The revised and modernised formats – IOGP P1/11 and P2/11 – are now available to download for free from IOGP's Bookstore at www.iogp.org/bookstore

The UK00A P1/90 and P2/94 position data exchange formats that are commonly used in seismic data acquisition have outlived their design life and can no longer support modern acquisition techniques without adaptation. They have therefore ceased to be standards as each user of the formats has modified them differently, to suit their own purpose.

In 2011, IOGP (formerly known as 'OGP'), the custodian of these formats, brought them up to date to meet the needs of complex seismic acquisition techniques of today and the foreseeable future, with further enhancements added in 2015 with the benefit of 4 years of industry trials.

Furthermore, while use of the post-processed position data format (P1/90) has been common only in the marine environment, the revised version has the advantage of being applicable to all environments (marine, transition zone and land), whether for 2D, 3D or 4D acquisition, and also for multiple acquisition formats (marine tow, spiral, OBC, OBN, HR & seabed hazard etc). Other legacy formats such as the unsupported SEG P1 can therefore be retired in favour of the P1/11.*



Photo: ©Stephan Gladieu/TOTAL

Among the benefits of the new formats:

- A structured ASCII text style for human and machine-readability
- Comma-separated fields enabling direct extraction into a spreadsheet
- The ability to store single or multiple seismic lines in the same file which, with conventional file compression can be reduced to manageable file sizes for transmission
- Freedom from previous constraints on field or file line lengths – the receiver groups for an entire streamer can be stored on one line if required
- Availability of a user guide for the P1/11 format

* The Technical Standards Committee of the Society of Exploration Geophysicists (SEG TSC) and IOGP's Geomatics Committee agreed to deprecate the SEG P1 and recognise the IOGP P1/11 as its replacement



Key features include:

- A **Common Header** across all 'P' position formats
- **Unambiguous geospatial definition** of position data in up to three coordinate reference systems including relevant transformations
- Full support for the IOGP **EPSG Geodetic Parameter Dataset** (www.epsg.org)
- Data values recorded to their **full measured resolution**
- Record extension through **additional user-defined fields**
- Any node defined as a position object can be recorded, with **positional error estimates** and other attributes
- A standard means of **exchanging pre-plots** (lines, points, arcs, spirals) and survey areas
- Support for **relational records** linking source & receiver positions as required for 3/4D surveys
- Optional fields allow support for **data in legacy formats**
- Support for raw **GNSS data recording** (P2/11)
- Support for **environmental data** such as magnetic variation, speed of sound, tidal information (P2/11)
- Ability to record **Site Hazard position data** for HR/UHR and Seabed Clearance Surveys (MBES, SSS, SBP, Maggy)

For more information about the Geomatics Committee

please see: www.iogp.org/geomatics

or contact the Committee Manager at lks@iogp.org

Environments

- Marine
- Transition zone
- Land

Applications

- Preplot exchange
- Seismic acquisition
- Seismic processing
- Geophysical site hazard surveys
- Workstation data loading
- Data management

**IOGP P1/11 replaces
UK00A P1/90**

**IOGP P2/11 replaces
UK00A P2/94**

**SEG P1 deprecated,*
replaced by IOGP P1/11**



Photo: Geokinetics

