### P1/11

**Exchange of processed position data:**
- Pre-plot data
- Define survey outlines / perimeters
- Record final source / receiver etc. position records and attributes
- Record source / receiver relational data

### P2/11

**Exchange of raw positioning data:**
- Line definitions
- Environmental data (magnetics, tidal, speed of sound)
- Acquisition & survey network definitions
- Raw measurement & position observations
- Raw GNSS recording

### P6/11

**Exchange of bin grid position data:**
- Define bin grid geometry & perimeters
- Record bin node position records and attributes
- Capture bin grid transformations throughout life cycle
- Retain position integrity after merge / reprocessing / 4D
- Record provenance of multi-survey merged volumes

### Collaboration with SEG

- Latest version of SEG-D (field tape format) and next revision of SEG-Y support Common Header CRS definition
- IOGP Geomatics Committee and SEG TSC collaborating on the next version of SPS. SEG P1 handed over to IOGP and now deprecated as P1/11 is a better alternative.
- P1 & P2 revision performed in liaison with SEG and SPS work group. P1/11 V1.1 tested and can fully replace current SPS version.

### Benefits

- Comma delimited & variable record length - fully extensible, can add information/data
- Full geodetic support & full value precision - EPSG compliant
- Common header structure
- Mandatory and optional entries - flexibility
- Increased potential spatial integrity QC throughout life of seismic dataset
- Lower overhead for Data Manager – improved provenance for spatial elements of seismic data
- CSV format improves parsing for human readability

### Modern techniques and metadata exceed previous position formats, which were inhibited by:

- Rigid structure & length – e.g. limits imposed on object counts
- Limited geodetic identity, and do not follow the EPSG model
- Limited precision due to fixed field widths
- Overlapping formats and format revisions resulting in “standard” variations

### IOGP Geomatics Committee:
P-format Standards for Positional Integrity

Contact: lks@IOGP.org

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**Sample P1/11 Common Header**

- **Survey details**
- **Units of Measure**
- **Geodesy / CRS & Transformation details**
- **Spread configuration**
- **Position Quality factors**
- **Start of position data**

**Common Header**

Common to all Px/11 formats. For exchange of survey metadata including:
- Survey summary
- Reference Systems – geodesy, / CRSs, units of measure, time
- Survey configuration and production systems
- Position object definition including sources and receivers
- Format definition to interpret position and attribute records

**Applicability**

- 2D, 3D, 4D, Multi-component, EMGS, Site & Clearance Surveys
- Marine Tow, OBC / OBN, Transition Zone, Land

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**Towed streamer spread constructed from P1/11 Common Header**

**Units of Measure**

**Geodesy / CRS & transformation details**

**Spread configuration**

**Position Quality factors**

**Start of position data**

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**P6 Bin Grid Configuration**

**MAP GRID - EAST**

**MAP GRID - NORTH**

**Bin Grid Origin (Io, Jo)**

**Bin Width (I-Axis)**

**Bin Width (J-Axis)**