

# REPORT ON THE ISO TC211 MEETINGS, BERLIN, OCTOBER 2003

## 1. Overview and key issues

The Berlin week saw TC211 making further progress although there are still some fundamental issues to grapple with.

The technical work is now very much focussed on the implementation standards, particularly those regarding defining the structure of registers of information (so that users can confidently extract data fields from a register and use them) and on harmonising the various TC211 documents. In the latter regard, concrete progress started, with the aim of reducing the number of documents and therefore make ongoing harmonisation easier. An external driver for this is the revival of European standards (which will be legally mandated for EU projects such as INSPIRE), and the danger that the European implementers may have to create additional/ replacement material for non-harmonised ISO documents.

Outreach activity in TC211 continues at a good level, with papers given to a wide variety of conferences and gatherings. A new TC211 website (still at [www.isotc211.org](http://www.isotc211.org)) is close to being launched, which will focus on the needs of standards users (FAQs, fact sheets, newsletters etc), as well as of standard developers. Linkages with liaison bodies such as FIG is also important in this regard, and a seminar on the work of liaison bodies (in which I gave a Paper on FIG work) was included in the Berlin week.

Key issues for FIG are, in summary:

- Outreach: arranging a half-day workshop in Athens in conjunction with WW2004.
- The need for us to continue to input to a number of specific work items including:
  - 6709 – standard ways of expressing position – Tomas Soler (Commission 5)
  - 19129/ 19130, which include photogrammetric issues but probably don't currently have enough focus on this instead of satellite imagery (Naser El-Sheimy)

FIG remains respected as a key contributor to TC211's programme of work. We should continue to support TC211's work, particularly outreach.

## 2. My activity

I divided my time as follows:

Monday, Tuesday – largely at the editing committee meeting of 19135 (Registration); strategy meeting

Wednesday – giving a paper on FIG activity at the Standards in Action seminar; Outreach meeting

Thursday, Friday – Plenary meeting of TC211

Between these formal activities, I held a range of meetings with individuals and small groups.

## 3. Technical item progress

Most of the initial batch of 211 standards are now published, or are with ISO in Geneva for the final editorial actions. Only three remain with the Technical Committee, with a variety of issues having held them up. They are expected to move on very shortly.

The focus of the TC at the moment is therefore on the next 'level' of standards that enable easier implementation of the conceptual standards. The active work is as follows:

- The process for establishing registers of items of geographic information. The purpose of this work is to ensure that all registers contain information in a standard format and described in a consistent way, so that accessing that information provides unambiguous answers. Much of the

central document – ISO 19135 – is procedural (roles and responsibilities for a register, for instance), with different types of registers then specified in particular standards. 19135 went through editing committee in Berlin, with a stable version expected to be realised by April 2004. This is an urgent task, with many bodies wanting to establish registers that conform to the TC211 standards. Related work includes:

- 19126 – data dictionary formats – key for IHO, DGIWG etc but needn't concern us greatly
  - 19127 – registers for geodetic codes and parameters. Of interest to C5, and possibly to the History PI (as they have a lot of records of historic coordinate reference systems). The document will define how a register of codes and parameters will be set up and maintained – a process that will allow users easy access to the definitive parameters for all coordinate reference systems. On hold pending the completion of 19135
  - 19131 – data product specifications – how to define such things in a consistent way. Continued in editorial stages at Berlin.
  - 19137 – generally used spatial schemas – another document putting flesh on the conceptual schemas. We need only keep a watching brief
  - 19138 – data quality measures – this is attempting to define what measures should be used to define quality (eg. how do you measure completeness, positional accuracy etc).
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- A review (19140) of what technical amendments are needed to bring harmony to all of the standards that were developed in parallel. This is vital if the standards are to be used, not least in the European context through the revised CEN standardisation efforts in this area. The work item got fully underway in Berlin, debating the main issues, and how a reduction in the number of documents could be achieved. This would make the standards more accessible for users, and therefore I continue to support the efforts (and have got actively involved in certain aspects)
  - 19129 and 19130 – issues concerning raster data. 19130 is the more interesting for us, as it incorporates various aspects of photogrammetry such as how to define orientation parameters. Naser El-Sheimy from C5 is our expert for these work items. They are fast approaching the point when formal FIG comments can be submitted. There is still a gap on LIDAR and SAR information in the documents and, overall, probably too much of a focus on satellite imagery and not enough on aerial photography.
  - Revision of ISO 6709 – how to state latitude, longitude and positions – this 1983 standard needs updating for the digital age. FIG provided comments that a revision would be useful, and has nominated Tomas Soler of USGS as our expert. The project team met for the first time in Berlin and discussed how to proceed. It was agreed to keep the document as a separate standard (rather than wrapping it in to 19111 on coordinate reference systems) and to move quickly to revise the current document, with any work needed on stating eastings and northings, for instance, left for subsequent documents
  - 19132-34 – Location Based Services. Some amounts of progress are being made. Martin Scheu of C3 is our expert for these items which tend to move on independent of the rest of the TC211 work.
  - 19136 – GML – a key document, and one which is a joint piece of work with OGC. The technical content is of interest to us as users but we perhaps don't have a great deal to contribute to its development. Larry Hothem is the FIG expert
  - 19139 – implementation of metadata – a similar exercise to 19137

- the extension of 19115 (metadata) and 19101 (reference model) to cope with imagery and gridded data. The whole area of imagery and gridded data were not dealt with in the original work and needs including. Several other pieces of work are likely to be needed fully to include gridded data in the standards. There is a concern that the teams are focussing very much on satellite imagery (they are largely driven by DGIWG – the military) and not considering aerial photography. This is something that Naser is best placed to influence as our expert to the connected 19129 and 19130.

No significant number of new work items are currently proposed, reflecting a sense that TC211 should complete its current phases of work, and ensure that they are properly harmonised, before entering new areas. One exception to this is a proposal from FAO (UN) to create a standard covering their land cover classification scheme (LCCS). This created an interesting debate in the plenary meeting as to whether the work (which has taken 6 years and a lot of consultation) should be ‘fast tracked’ through the ISO process, or start at the beginning. There was also some discussion as to whether such a classification should be a standard in its own right, or something which conforms to the standards. This debate is likely to continue to surface as particular users propose their documents to become standards.

In a related debate, the issue of an OGC web map server specification was discussed. This states longitude before latitude, and therefore does not conform to other TC211 standards. It is, however, the taking up of an OGC specification which has been in use for years. So the purists and the messy commercial world are not fully reconciled! This also came through in discussions on ISO’s new (tighter) timescales for completing standards.

Other issues:

- terminology – the work of harmonising all of the terms in the TC211 standards is nearing completion as far as agreeing the terms is concerned (the formal amendment of documents with old terms in them will take some time). Mutual links with the FIG MLD site exist at present from the TC211 terms repository and I will seek to ensure that they are maintained.
- qualification and certification – Geneva requires some editorial tidying up of the document before they will publish it. This is expected to delay publication until early next year. Hans Knoop remains the main person attempting to further work on the document, and he gave a presentation on it during the week. The plenary appointed him as contact point for questions on the document, and to make proposals for further action as necessary. I got a sentence added to the resolution requiring close cooperation with professional bodies. I believe that it is now important for FIG (working with our sister societies) to provide a functioning model of mutual recognition, rather than simply an academic model, if we are to respond constructively to the ISO work. My understanding is that the URISA certification model is getting a good level of take-up in the USA.
- CEN TC287 has been revitalised, with the Netherlands as secretariat. The first meeting is on 10-11 November (at which I should represent Ireland but I am unable to attend). One of the TC211 concerns is that there are errors in the ISO standards that will prohibit CEN from simply rebadging them as CEN standards (which will by law be those used for European initiatives such as INSPIRE).

I spoke briefly to the FIG Liaison report. I have also provided an updated list of FIG experts to the active work items, to the secretariat.

#### **4. Outreach**

There was a good amount of progress to be reported at the meeting. TC211 is now managing to get itself explicitly onto the agenda of conferences and meetings around the world. I am working with Markku and Henry Tom to bring a half-day workshop on what the standards mean, to Athens in conjunction with Working Week 2004.

A new TC211 website is to be launched shortly, which will include a broader focus on standards usage (as well as standards development). It will include, for instance, a fact sheet on each standard, a range of presentations, and an FAQ section. In all of this, TC211 is relying on voluntary effort and so progress is not as quick as we would like – but things are heading in the right direction. A quarterly electronic newsletter has also been started and is available via the website.

Another development in Berlin was the inclusion in the programme of a seminar at which liaison bodies described their work on standards. The first paper (by Hans Knoop) was on qualification and certification. The following three were a good contrast to each other:

- I spoke on what FIG is doing, using in large part the presentation I have given at recent FIG events. I also took some copies of the FIG Guide on Standardisation for people attending
- John Latham of FAO described the standard land cover classification scheme
- Aleksander Pavlovic of ICAO described their work on standardisation

The seminar was judged a success and will be repeated at future meetings – one key focus for next time is to include some of FIG's sister societies, with a description of their priorities and action.

#### **5. The future**

TC211 continues to gain momentum. With standards being published, and the renewed focus on Outreach, there is much good that is happening, and that FIG can gain from being associated with.

The next meetings for TC211 are as follows:

- May 2004 – Kuala Lumpur (clashing with FIG Working Week 2004)
- October 2004 – Ispra, Italy

I will be discussing with the FIG office and others how/ whether FIG should attend each of these meetings.

Iain Greenway

2 November 2003