

3.7.4 Working Group on Site Coordinate Time Series Format

The Working Group is a unified WG, both an IERS WG (<<http://iers.org/WGSCTSF>>) and IAG WG 1.1.1 (<<http://iag.uni.lu/index.php?id=175>>) of Sub-Commission 1.1 (Coordination of Space Techniques).

Goals and objectives

The major goals and objectives of the WG are:

- 1) Define a common exchange format for coordinate time series of all geodetic techniques (DORIS, GNSS, SLR, VLBI, ...)
- 2) Examine what type of time series is required (geocentric, detrended, reference frame, ...)
- 3) Define the data and meta-data that should be included in the format
- 4) Ensure that the format contains the necessary information to be easily used or converted for the web tools of the IAG Services (GGOS, IERS, IDS, IGS, ILRS, IVS)

WG Members

In order to have the best possible interaction with the groups working with station coordinate time series, the working group is composed by time series providers and users.

- Bernd Richter (BKG), GGOS portal manager
- Thomas Herring (MIT), IERS Analysis Coordinator
- Xavier Collilieux (IGN), ITRS Combination Center
- Manuela Seitz (DGFI), ITRS Combination Center
- Laurent Soudarin (CLS), IDS representative
- Paul Rebischung (IGN), IGS representative
- Erricos Pavlis (Univ. of Maryland, Baltimore County), ILRS representative
- John Gipson (NASA), IVS representative
- Médéric Gravelle (Univ. La Rochelle), user (SONEL)
- Yehuda Bock (Scripps Institution of Oceanography), user (SOPAC GPS webservice)
- Simon Williams (Proudman Oceanographic Laboratory), user (CATS software)
- Xiaoping Wu (JPL), user

WG activity

The first meeting of the WG was organized in San Francisco at AGU, on December 6th, 2012. Despite a very short time of meeting, we had rich discussions on some important issues concerning the data: time scale, reference system, coordinate system, ... The metadata are of prime importance in the format because they will give the necessary information to identify the time series and to

make them easily used. They were briefly discussed. S. Bachman, representing GGOS, informed us of the existence of ISO standards for Geospatial metadata, and of the metadata search engine included in the GGOS portal.

The second meeting of the WG was held in Vienna at EGU, on April 10th, 2012 with a few participants because of travel restrictions for our NASA colleagues and the meeting of GGOS Bureau of Networks and Communications at TU Vienna at the same time. A list of existing formats at IAG services and GPS time series providers were presented. Several issues concerning the time series were discussed (epoch, time tag, accuracy, correlations, ...).

The activity of the WG was presented in the session “Unification of product formats” at the IERS Retreat held in Paris in May 2013. The purpose of the session was to discuss the benefits of common formats for the IERS data products, especially for EOP estimates and position time series. It was expressed that there is a clear need to have a standardized format to allow easy comparison. There were not any particular recommendations concerning position time series, just that the WG must continue developing a common format and investigate methods for web access to these files (including graphical presentations). Meeting summary and presentations are online at <<http://www.iers.org/Retreat2013.html>>.

A third meeting took place in Vienna, on April 15th, 2015, at EGU. Based on a non exhaustive list of existing formats at IAG services and GPS time series providers, metadata and data have been examined. The next step is to define the necessary elements for the time series exchange format (metadata content, data table, mandatory and optional inputs) as well as the units, the coordinate system, the date and time system.

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