
**SINEX:
IERS Working Group
and
planned format modifications**

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on behalf of the IERS SINEX Working Group

IERS SINEX Working Group

Chair: Daniela Thaller

IERS:

- Analysis Coordinator: Tom Herring
- Central Bureau: Bernd Richter
- Conventions Center: Gérard Petit

Technique Services (Analysis Coordinator and Combination Center):

- IDS: Guilhelm Moreaux, Laurent Soudarin
- IGS: Jim Ray, Paul Rebischung
- ILRS: Erricos Pavlis, Cecilia Sciaretta
- IVS: Axel Nothnagel, Sabine Bachmann

ITRF Combination Centers:

- IGN: Zuheir Altamimi
- DGFI: Manuela Seitz

IERS WG Co-location: Pierguido Sarti

GGOS BSC: Peter Steigenberger

Goals and Objectives:

- 1) Maintenance and update of the SINEX format
- 2) Handle request for SINEX format changes
- 3) Mechanism on how the SINEX format is changed and agreed upon
- 4) Introduce new parameterizations and model variables as required
- 5) Description of the format with up-to-date information technology

Schedule:

- 11. February 2011*** Email request to the potential members of the WG has been sent out
- 23. March 2011*** List of members finalized
- 06. April 2011*** First meeting of the WG at EGU:
⇒ Collect requests of Technique Services, IERS and GGOS which format changes are needed

Status in SINEX v2.02:

- Not included in official SINEX format description
- Already in use by ITRF computation, IGS, ILRS
- Documenting events at stations that led to a splitting of the time series:
 - Earthquakes
 - Equipment change (e.g., antenna)
 - Unknown events

New development:

- Include in official SINEX format description
- 3 suggestions are discussed at the moment
- Parameterization for individual intervals ?
- Generalise to be used for all parameter types (not only coordinates) ?

Status in SINEX v2.02:

- No documentation of models
(only some exceptions: nutation, phase center)
- Analysis summary files are archived separately from SINEX files
- ILRS includes a „standardised“ summary in FILE/COMMENT block

New development:

- Include a new block in official SINEX format description
- Machine-readable
- Suitable for all techniques
- First collection of keywords

Antenna Phase Center Issues

Status in SINEX v2.02 :

- Only GPS and Galileo is defined:
SITE/GPS_PHASE_CENTER
SITE/GAL_PHASE_CENTER
- Only offsets can be included with values (no phase center variations)
- PCVs are given only by the model name (e.g. IGS08_1648.atx)

Idea for modification:

- No extra blocks for GLONASS, COMPASS, QZSS, ...
- Specification of the entire phase center model (offset+variation) by the model name (must be unique)
- Define keyword in MODELLING block
- Applicable for DORIS as well

SATELLITE/ID

- At the moment defined only for GPS/GLONASS
- Applicable for all satellite techniques
- First suggestion is discussed

SLR: Center-of-mass values and laser array offsets

- A new block will be defined

SOLUTION/WEIGHTING

- New block
- First iteration done
- Satellite-specific
- Station-specific
- Technique-specific
- Relative and absolute weighting
- Allow for time windows

APPENDIX II

- Extended description of mathematical background
- Relation to the SINEX entries
- New layout
- First iteration done