

The IGS RINEX 3 Transition ... an on-going saga ...

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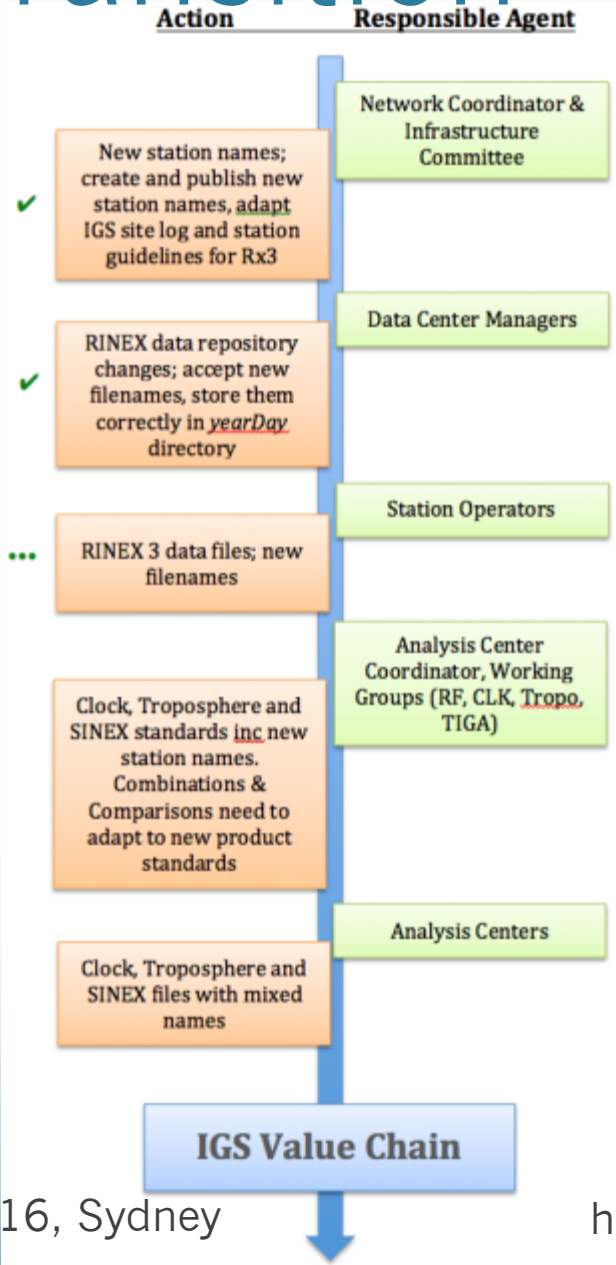
Outline

- Rinex 3 Transition Plan (<http://bit.ly/1Md7VhU>)
- IGS IC & NC actions
- Data Center Working Group actions
- Upcoming actions
- Conclusions

RINEX 3

- Accepted format for multi-GNSS to accommodate all GNSS constellations including Beidou (not in RX2)
- Phase alignment is consistent between signals (all aligned)
- Complete observations sets for all signals and possible tracking modes.
- Supported by all receiver vendors with multi-GNSS, not backwards compatible
- Latest Format RX3.03 (Jul,2015) <http://bit.ly/1Yaodnl>

RINEX 3 Transition



Infrastructure + DCWG + RINEX Splinter Meeting:
 Thurs 15:00-17:00
 Theater A

Figure 1: IGS Value Chain



IGS NC & IC actions

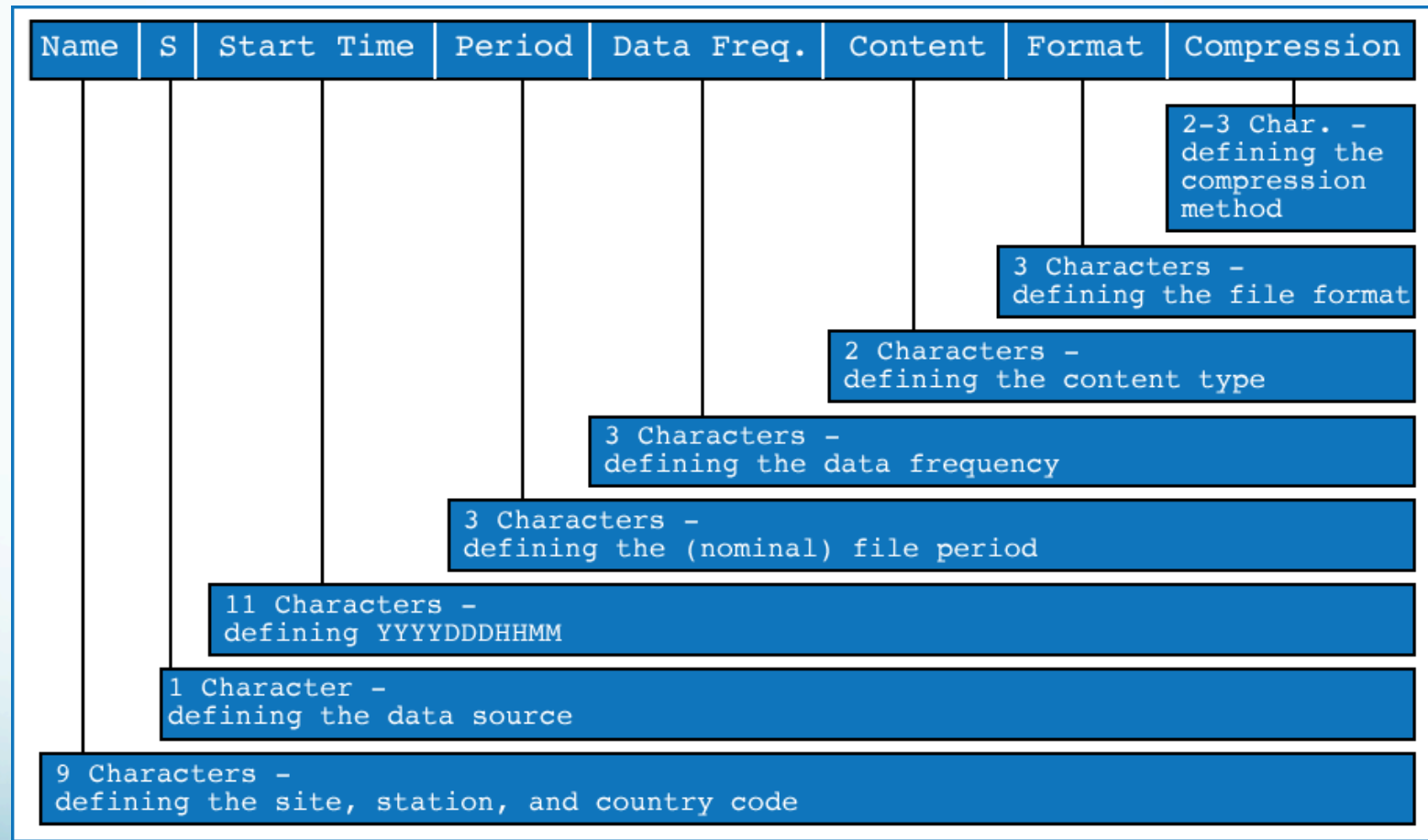
- Adapted SLM table and DB to Long names & generated all station Long names
- Updated Site Guidelines to accept RINEX 3 files from stations
- Distributed instructions how to generate longnames using gfzrnx (<http://semisys.gfz-potsdam.de/semisys/>)
- **Outstanding;**
 - Site Information Log inclusion of RINEX3 long name (XML metadata project).
 - Station performance plots, and tables adapting to long names.

IGS DC actions

- Participating DCs; RINEX 3 data from 2016 (daily, hourly, high-rate) using the long filenaming convention are archived in Operational GNSS data archives, e.g., <ftp://cddis.gsfc.nasa.gov/gnss/data/daily> (../hourly ,../highrate)
- Operational IGS data directories now contain data in:
 - RINEX V2 format with files using 8.3.Z naming convention
 - RINEX V3 format with long filenames, with gzip compression⇒ IGS GNSS data in both RINEX V2 and V3 formats available in same subdirectories
- MGEX (campaign) data directories continue to hold files in RINEX V3 format using 8.3.Z naming convention
 - ⇒ Data from multi-GNSS sites could be found in both directory structures with different filenames

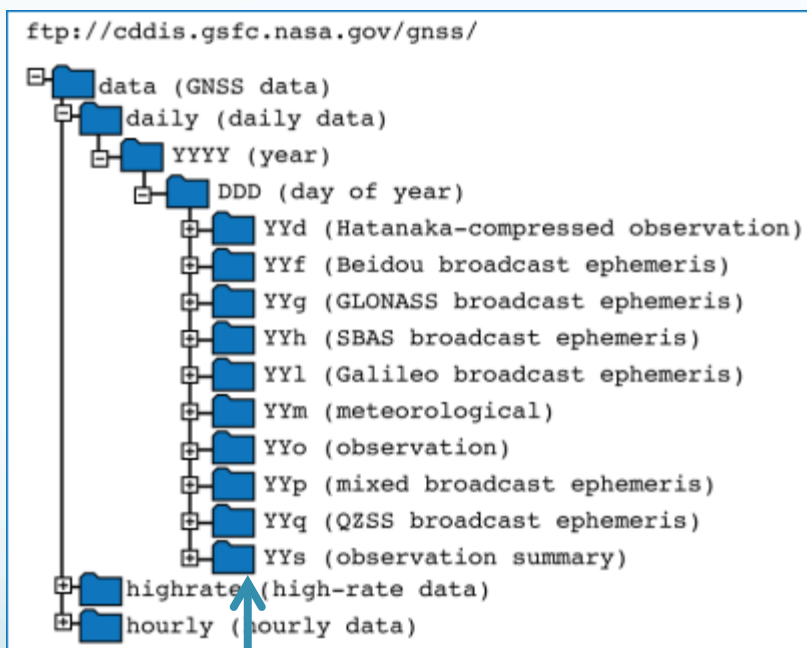


RINEX 3 filename format





New directory structure



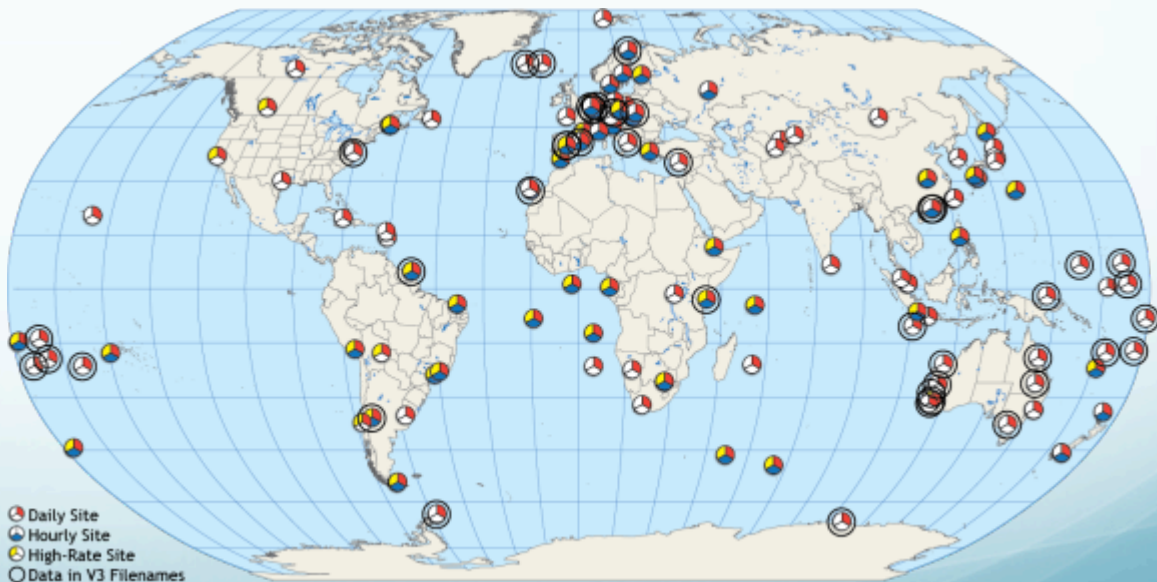
Subdirectories contain both files with 8.3 and long filenames

- Sources (#sites/type):
 - ESA (9/D+H+HR), GA (21/D), BKG/Wettzell (9/D+H), IGN (2/D+H), ASI (1/D), ROB (1/D+H)
- Sites:
 - 40+ sites providing daily data from 7 sources (out of ~135 sites providing daily data in RINEX V3 format)
 - 16+ sites providing hourly data from 4 sources (out of ~50 sites providing hourly data in RINEX V3 format)
 - 9 sites providing high-rate data from 1 source (out of ~50 sites providing high-rate data in RINEX V3 format)



IGS DC next actions

- After WS DCs will generate RINEX V3 long name files for those sites that continue to supply data in V3 format using 8.3 filenames
- As an example, CDDIS will use *gfzrnrx* tool to create files with the RINEX V3 filenames (<http://semisys.gfz-potsdam.de/semisys/>)
- CDDIS will create/update daily status files to reflect all data holdings, both RINEX V2 & V3
- All IGS **multi-GNSS station** operators are encouraged to submit data using RINEX V3 filenames, those that can only support V2 filenames can continue to do so for 2016



Next actions

- Engage the WG Chairs with specific format issues
- Encourage Analysis Centers to process mixed RX3/RX2 data files
- **Outstanding:**
 - gage the impact that long station names will have on current product formats; clk, tropo, SINEX
 - For dual file stations study how performance measures to be shown in IGS webpage
 - Continue to support users and analysis centers

Conclusions

- RINEX 3 Transition Plan implementation progressing slow but steady
- All IGS stakeholders participating so far: IC, NC, DCs, SOs
- More IGS stakeholders needed now that data flow is established and merged
- Open forum this afternoon:

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