

New Developments at AIUB/CODE

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New Developments at AIUB/CODE (1)

- Troposphere:
 - Piece-wise linear (instead of constant) parameter representation
 - A priori model for hydrostatic component (mapped with DRYNMF)
 - Horizontal troposphere gradient parameters supported by ADDNEQ2
 - “Fixing” of gradient parameters on NEQ-level
 - Introduction of (globally) estimated troposphere delays on LEQ-level
- Ocean loading:
 - Changed from FEES95.2 to GOT00.2 model
 - AIUB BLQ computation service will be stopped
 - Web-based BLQ computation by Scherneck:
<http://www.oso.chalmers.se/loading/>

New Developments at AIUB/CODE (2)

- Absolute PCV corrections for satellite and receiver antennas
 - Modified/extended `SATELLIT . file`
 - Extended “`PHAS_IGS . 01`” file
- RXOBV3 revised in regard to automatic data processing
- Antenna radom coes (20-character antenna/receiver names)

New Developments at AIUB/CODE (3)

- ADDNEQ2:
 - ADDNEQ(1) no longer available
 - Improved output (“grep”-capable!)
 - Sorting of all involved parameters (in alphabetical order)
 - Detailed statistics (e.g. concerning previously pre-eliminated parameters)
 - New-formatted station info (STA) file
 - STA file converter available (to extract info from HTR, STN, TRN)
 - Output of troposphere parameters in “regular” SINEX format
 - Variance component estimation not yet implemented
 - Additional parameter pre-elimination capabilities
 - Fortran 90 (dynamic array allocation ...)

New Developments at AIUB/CODE (4)

- IERS 2000 conventions
 - Tides: TIDE96 replaced by TIDE2000 (provided by ROB)
 - Nutation (IAU2000)
- P1-C1 code biases:
 - CC2NONCC utility no longer needed
 - Redefined RECEIVER. file
- PRETAB:
 - Satellite orbits indicated with accuracy code “0” can be ignored
 - Accuracy code threshold value may be specified

New Developments at AIUB/CODE (5)

- **GLONASS:**
 - Final, rapid, as well as ultra-rapid GNSS orbits generated at CODE:
`ftp://ftp.unibe.ch/aiub/CODE/COD.EPHU`
 - Software continuously checked in terms of “GNSS”
 - `SAT_yyyy.CRX` and `GPS_yyyy.CRX`
 - `RXOBV3` and `GPSEST` with satellite system switch

New Developments at AIUB/CODE (6)

- New menu system V5.0
- New BPE (Bernese Processing Engine) V5.0
 - Old (V4.2) PCFs (Process Control Files) still usable
 - Perl as main BPE script language
 - Simple and advanced Super-BPE mode
- Release of Bernese GPS Software Version 5.0:
 - LEO-capable
 - Real kinematic applications possible
 - Several BPE examples planned and already in preparation (PPP, RNX2NEQ, NEQ2SNX, CLK, ION)