

GPS/GLONASS Clock Solutions at CODE

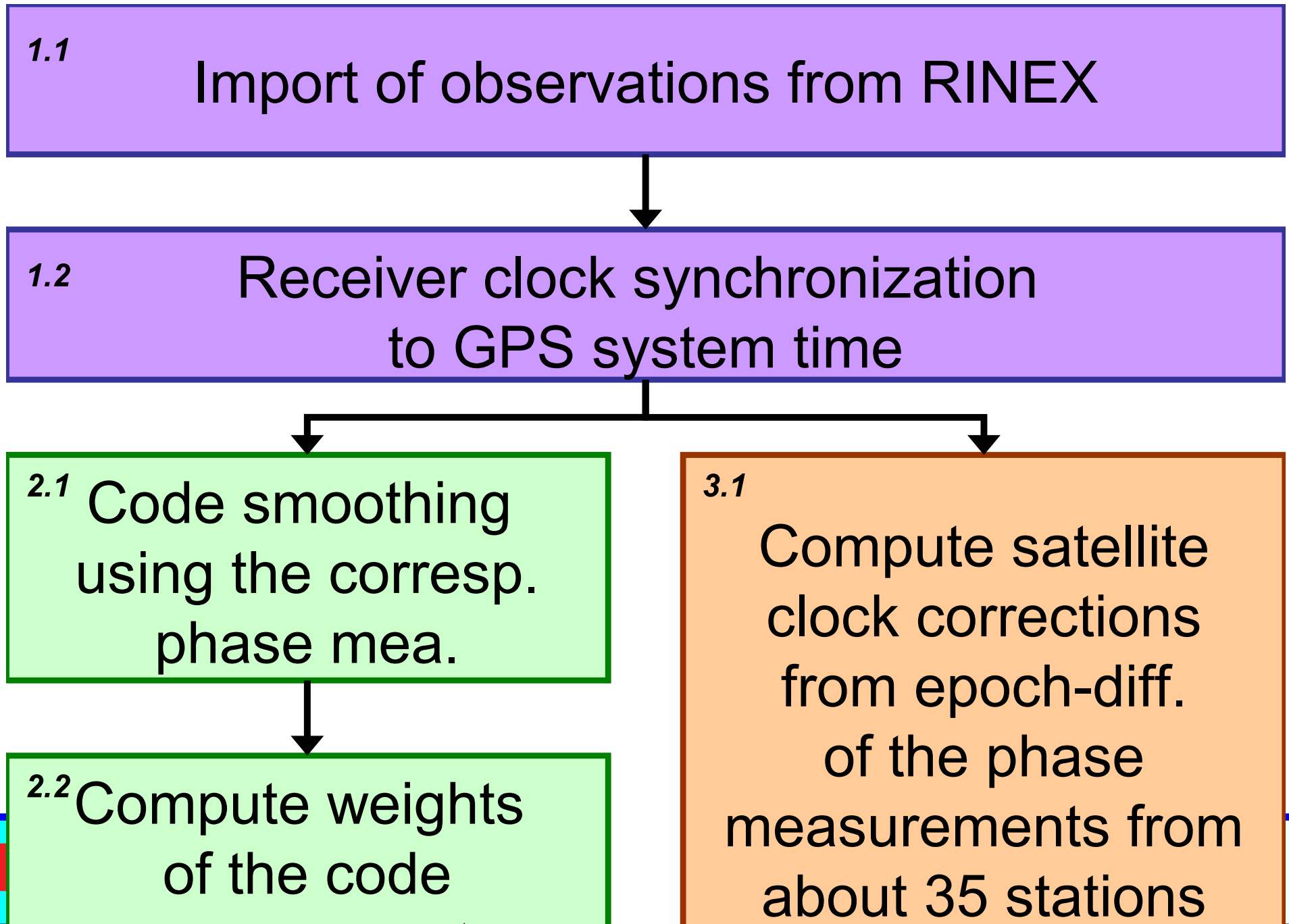
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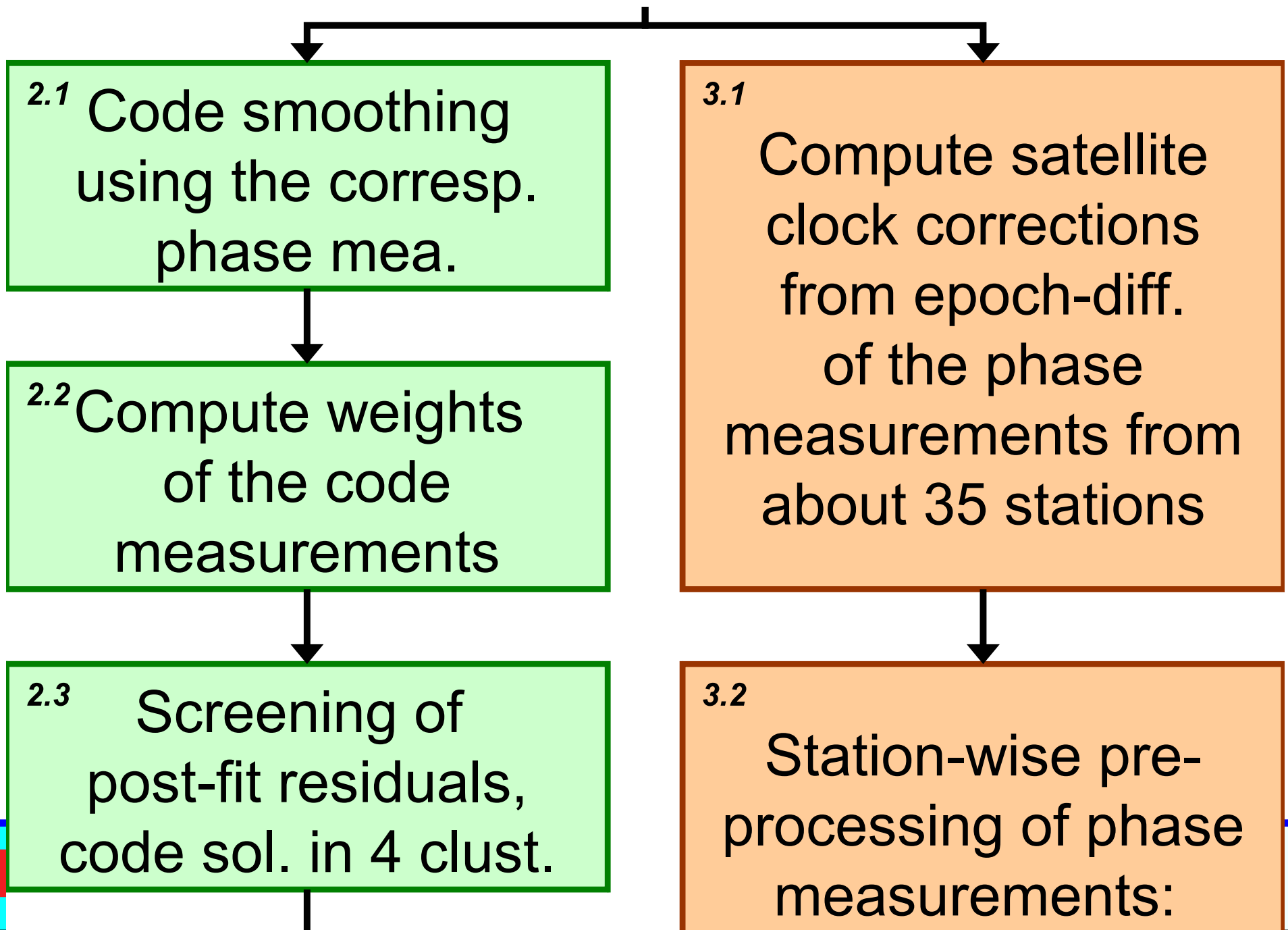
²Federal Office of Topography swisstopo

IGS-Workshop on GNSS-Biases
Bern, Switzerland, 18.-19. January 2012

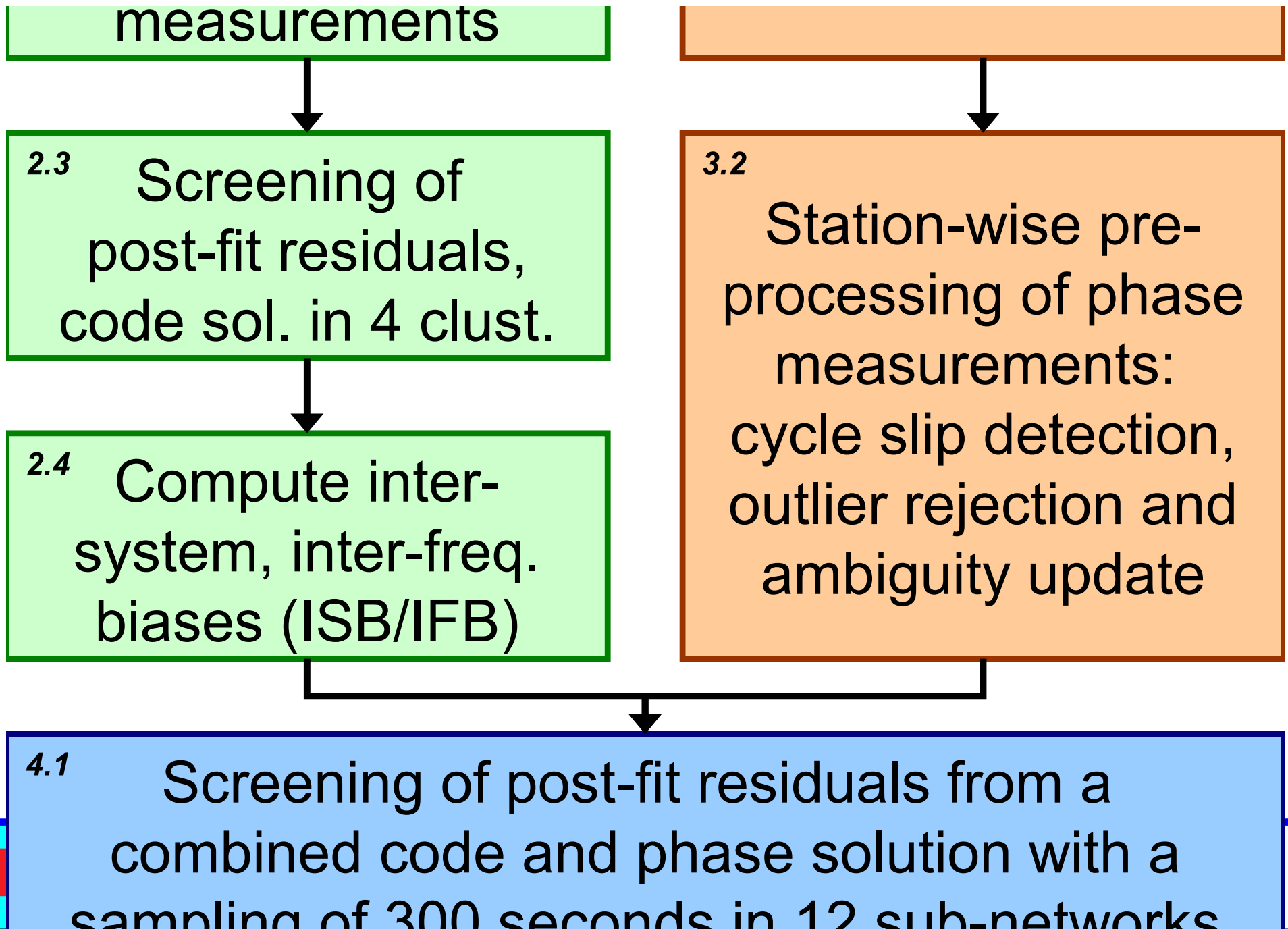
Processing Overview



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graph TD; A[4.1] --> B[4.2]; B --> C[4.3];
```

4.1 Screening of post-fit residuals from a combined code and phase solution with a sampling of 300 seconds in 12 sub-networks (ISB/IFB from 2.4 are introduced)

4.2 Computation of the clock corrections from combined code and phase solution with a sampling of 300 seconds in 3 global clusters (ISB/IFB from 2.4 are introduced)

A 4.3 Combining the clock corr. from 4.2

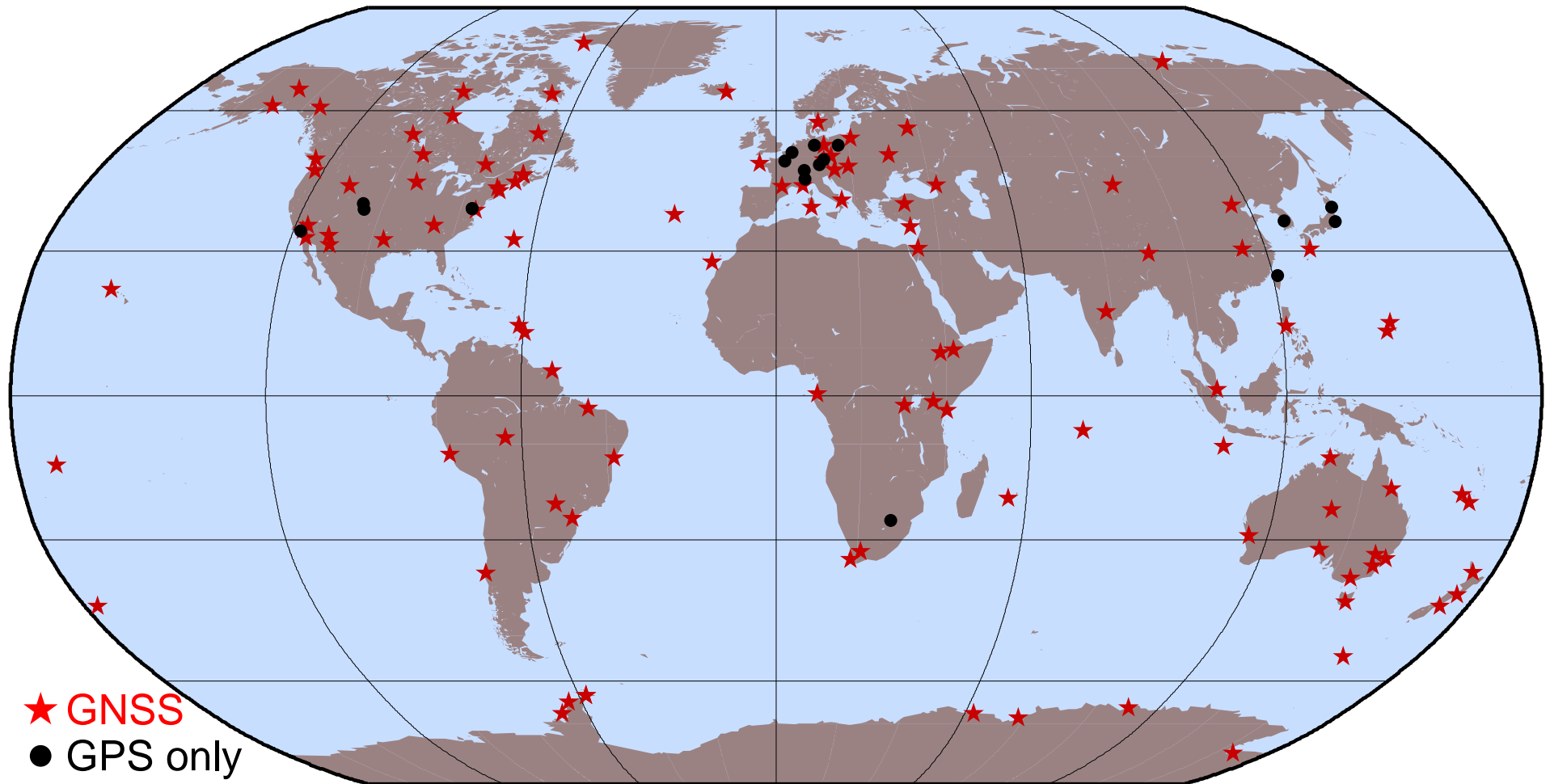
Processing Overview

4.2 Computation of the clock corrections from combined code and phase solution with a sampling of 300 seconds in 3 global clusters (ISB/IFB from 2.4 are introduced)

4.3 Combining the clock corr. from 4.2 (including reference clock selection)

4.4 Densification from 300 to 30 seconds by interpolation using the phase measurements

Network for Clock Solution



Technical Remarks:

- Clock corrections are generated at intervals of: 30 sec
 - clock estimation at intervals of 5 min
 - phase-based interpolation at intervals of 30 min
- Handling of GLONASS interfrequency code biases
 - one bias parameter for each station and satellite combination/pair
Time resolution: 1 set of biases per day (24 hours)
- Description of datum definition (or reference) for GLONASS code biases:
 - Zero-mean conditions with respect to:
 - ▷ all biases belonging to a particular GLONASS satellite
 - ▷ all biases (1 condition)

Other Remarks:

- Routine is regularly running but results are not submitted to the IGS (the corresponding FINAL procedure is missing since two years due to lack of time)
- Procedure was used for reprocessing (years 2008. . . present). In the earlier years (back to 1996) a GPS-only solution has been generated using this algorithm.
- The procedure has already been used for GPS/Galileo/GIOVE.

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- The procedure has already been used for GPS/Galileo/GIOVE.
- Results will follow in the „Comparison“ part.