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Description of the content of the directory:
<ftp://geofftp.ibge.gov.br/SIRGAS/Resultados/Combinacao/>
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The files of this directory are the weekly results, in SINEX (SNX) format, of combined solutions from results provided by four processing centres:

CIMA: Instituto de Geodésia y Geodinámica de la Facultad de Ingeniería de la Universidad Nacional de Cuyo (Argentina)
DGFI: Deutsches Geodätisches Forschungsintitut (Alemanha)
IBGE: Instituto Brasileiro de Geografia e Estatística (Brasil)
IGAC: Instituto Geográfico Agustín Codazzi (Colômbia)

Each Processing Centre is responsible for the processing of a group of stations that belong to SIRGAS-CON network.
More information about SIRGAS-CON network is available at www.sirgas.org.

In this directory can be found two types of solutions: loosely constrained weekly solutions (which can be used for future computations) and constrained weekly solutions (the solutions is highly constrained to a set of IGS05 stations). The following identification are adopted for SINEX files:

CCCwwwS.SNX ==> loosely constrained weekly solutions
CCCyyPwww.SNX ==> constrained weekly solutions
where:
CCC = identification of the Center of Processing
www = GPS week
yy = year with 2 digits, p.ex: 2010 = 10

Strategy of Combination:

- (1) Constraints are removed from the week solutions of each Processing Center, using free network solution strategy;
- (2) The free network solution of each center of processing is aligned to a set of stations that belong to IGS05 (2000.0)
Reference network applying the conditions of “no net rotation” and “no net translation”. The IGS05 stations are: BRAZ, CHPI, CONZ, CRO1, GOLD, ISPA, LPGS, MANA, MDO1, OHI2, PIE1, SANT, SCUB, UNSA and VESL.
- (3) The coordinates from step (2) of each processing center, are compared with IGS05 (coordinates propagated to week epoch) and between them to identify possible high residues. The stations with bigger residues that 10 mm in horizontal components and 20 mm in the vertical component will be analizadas and possibly withdrawals of the solution. In the case of the exclusion of some station the stages (1) and (2) will be repeated aiming at the refinement of the final solution and consequently of the estimate of the variance factor.
- (4) matrix covariância of each solution is scaled by the factor of variance or factor of scale.
- (5) the normal equations of each solution are combined to produce the loosely constrained weekly solution applying the weight of 1 meter in all the stations (OUTPUT: IBGwwwS.SNX).
- (6) (6) The normal equations of each solution are combined to produce the constrained solution (CCCyPwww.SNX) applying a weight of 1E-04 meters for IGS05 stations mentioned in step (2) (OUTPUT: IBGyyPwww.SNX).