

File: ISIS-PG-FMT503\_meaXX\_dat.xml

Description of 'meaXX.dat'; Randlsq Program mm Measurement Input File Format, where XX denotes the run-number ID for the best-fit solution from RAND, which was retained for that particular body. These run-number IDs are fortunately unique between each of the measured Saturnian moons such that XX: 03=Mimas, 04=Dione, 05=Iapetus, 06=Tethys, 07=Rhea, 14=Enceladus. Note, this input format is identical to the Randlsq program output file format.

Created as part of a project to put planetary geodesy control networks on the web. These control networks are from ISIS Planetary Geodesy Software (formerly RAND/USGS Planetary Geodesy (RUPG) Software).

Version: 2015.10.05

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Filename: meaXX.dat (example: mea04.dat)

File format:

Group 1 ("nmea" records):

| Name        | Columns | Format | Description (units).   |
|-------------|---------|--------|--|
| Imageid     | 1-10    | A10    | Image identification. Usually flight data sequence (FSC) or similar image number (unitless). |
| Focallength | 11-25   | F15.5  | Camera focal length (mm).  |
| Pointid     | 26-32   | 2X,A5  | Point identification (unitless).   |
| X measure   | 33-47   | F15.5  | X measurement of point on image (mm).  |
| Y measure   | 48-62   | F15.5  | Y measurement of point on image (mm).  |

Sample (from solution, file "mea04.dat"):

=> 3490330 1500.19000 111 -1.39170 -1.27330<=

Notes:

1. "nmea" is the number of line/sample measurements of tie points. See the "Solution Parameterization" file (format "ISIS-PG-FMT531.doc") for input of this.
2. A comment may appear after column 66 (e.g. a text comment or information on the pixel measurements).
3. Lines beginning with the character "#" will eventually be treated as comments.
4. Earlier versions of randlsq for non-lunar solutions used 5 character control point names, but all solutions now use 7 character names.

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Reference: Model, program, and format generally follow that specified in:

Colvin, Tim R. (1992). "Photogrammetric Algorithms and Software for  
Spacecraft Optical Imaging Systems," \_ A RAND NOTE \_, N-3330-JPL.

Note that the original format indicates the use of 5 character control  
point names.

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Document History:

Begun 2006.08.10 by B. Archinal, based on RUPG-FMT5002.doc.

Modifications: Modified 2015.05.18 by G. Cushing for web release.

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