Data production

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- Data versions
- Description of corrections
- Further work
- Conclusion

Versions of the data

- Already delivered data
  - IRa01 2007/12/10 1.1
  - LRc01 2008/02/15 1.2
  - SRc01 2008/04/01 1.3

- Planned deliveries
  - LRa01 2008/06/30 1.4
  - SRa01 2008/07/31 1.4

Version 1.1 : IRa01

version N1		N0->N1 corrections	N1->N2 corrections
seismo	1.1	• The surfaces used for the jitter correction are calculated over 4 pixels • Jitter perturbations are corrected with +/- 4 pixels displacement • Correction of electromagnetic interferences (EMI) is applied • The variation of the integration time is corrected • Protons impacts are detected and flagged • SAA crossings are flagged using orbit events information • Spare values are detected and replaced using linear interpolation	• Calculation of heliocentric date •discontinuities due to mask change corrected in HEL and HELREG • heliocentric time sampling in HEL and HELREG • non valid points linearly interpolated in HEL and HELREG • time sampling of 32s for all

Version 1.1 : IRa01

version		N0->N1 corrections	corrections N1->N2
exo	1.1	• Star light curves are corrected using median calculated background light curves • no jitter correction are applied on white light curves • for the chromatic light-curves, jitter perturbations are corrected on colour frontiers • Protons impacts are detected and flagged • SAA crossings are flagged • Correction of electromagnetic interferences (EMI) is applied • The electronic offset is subtracted • Spare values are detected and replaced using linear interpolation	• Merge of 512s and 32s sampling • Calculation of heliocentric date • • Hot pixels detection (data are flagged)

Content of version 1.2 : LRc01

version N1		corrections N0->N1	corrections N1->N2
Seismo	1.2	Same corrections as 1.1 except : • the surfaces used for the jitter correction are calculated over 10 pixels • the displacement allowed for the correction is +/-10 pixels	Same corrections as 1.1
exo	1.1	Same corrections as 1.1	Same corrections as 1.1

Content of version 1.3 : SRc01

version N1		corrections N0->N1	corrections N1->N2
Seismo	1.3	• Same as 1.2 plus correction of a bug in the use of the electronics gain (previously, CCDs A1 and A2 were corrected using the same gain, as well as right and left half-CCDs)	Same corrections as 1.1
exo	1.2	Same as 1.1 plus correction of a bug in the use of the electronics gain (previously, CCDs E1 and E2 were corrected using the same gain, as well as right and left half-CCDs)	Same corrections as 1.1

Version 1.4 : planned for LRa01, SRa01

N1 version		N0->N1corrections	corrections N1->N2
sismo	2.0	Improved seismology jitter correction : • better line of sight determination : the barycentre deviation is taken into account according to star intensity • jitter excursions are calculated using a common reference determined at the beginning of each run • Maximal excursion is limited • Beyond the limit, pointing is corrected through interpolation instead of using barycentre coordinates	TBC
exo	1.3	• Use of the new LoS • Correction of a bug in the outliers detection • Detection of light/penombra and penombra/light transitions	TBC

Software development

- 2 priorities
  - Jitter corrections on exoplanet data (LESIA)
    - White light (new column) in chromatic light curves files
    - High resolution PSF to be calculated
    - Jitter correction
  - Exo imagettes processing (LAM and ESA)
- Seismology imagettes pipe-line
- No need to reprocess data as long as jitter correction are not performed on exo data

Conclusion

- LRa01 (end of June) and SRa01 (end of July) with good seismo jitter correction
- Production of EN1_imagette (P0) and AN1_imagette (P1) in order to develop pipe-lines
- Improvement of exo-planet pipe-line : ASAP but not sooner as October 15
- LRc02
  - 15/04->15-06 : end of September (no better jitter corrections)
  - 15/04->03-09 : end of October (no better jitter corrections)
- Light curves from exo imagettes :
  - LRa01, Sra01 : end of October
- Reprocessing ASAP : LRa01, IRa01, SRa01, LRc01 (order TBD)