

16th European Workshop on Thermal and ECLS Software

22-23 October 2002, ESA ESTEC, Noordwijk

WELCOME & INTRODUCTION

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ESA ESTEC



Workshop objectives

- To promote the exchange of views and experiences amongst the users of the Agency's (and others) software packages in the fields of thermal control and ECLS
- To provide a forum for contact between end users and software developers
 - Free and open discussions.
- To present new versions of the software tools and to solicit feedback for development



ESA team

Charles Stroom Head of the Analysis & Verification Section
Duncan Gibson Software Support & Workshop Secretary
Hans Peter de Koning ESARAD, Polytan & Model Data Exchange
Olivier Pin ESATAN, FHTS, ThermXL & EcosimPro
Simon Appel, David Alsina i Orra, Ricardo Patrício Dias, Luis Ordonez Inda

ALSTOM team

Julian Thomas Project Leader
Frédéric du Laurens Support Manager



Programme

- Two-day Programme
- Presentations include 5 minutes for questions and discussions.
- today - ESA Round-Table discussion following the ESA Harmonisation paper (Hans Peter de Koning).
- Cocktails today after round-table discussion
- Dinner (option) tonight in Noordwijk
- Conclusions tomorrow at end of Workshop



Tuesday 22 October Morning

- 09:00 Registration
- 10:00 Welcome and Introduction
- 10:05 Arend Woering, et al., NLR, Two-phase thermal control for the AMS-02 Silicon Tracker
- :-- Shengping Luo, CNRS, 3D numerical simulation of turbulent heat and mass transfer processes in an ECLS system **(will not be presented!)**
- 10:25 Rachida Ameziane, EADS – Launch Vehicles, Simulation for Analysis and Validation of Energy (SAVE) management platform for ATV
- 10:45 Olivier Pin, ESA, On-going Work, incl. Stochastic, Thermo-hydraulic solvers and others.

- 11:15 Coffee break
- 11:20 Nick Cavan, RAL, Modelling the VISTA Infrared Camera
- 11:40 Jayne Fereday, RAL, Thermal Analysis of Planck HFI
- 12:00 Frédéric du Laurens d’Oiselay, et al., ALSTOM, ESARAD v5
- 12:20 Alexander Rodriguez, et al., ESA, Application of EcosimPro to Bio-regenerative Life Support Components
- 12:40 Frédéric du Laurens, et al., ALSTOM, ESATAN/FHTS v8.7 & v8.8
- 13:00 Lunch

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Tuesday 22 October Afternoon

- 14:00 Johannes van Es, et al., NLR, Integrated thermal design and the thermal numerical toolbox
- 14:20 Marc Jacquiau, Astrium F, Thermal simulation in functional analysis
- 14:40 Reinhard Schlitt, et al., OHB, Development of Algorithm to Interface LHP S/W Model with ESATAN Thermal Mathematical Model
- 15:00 Elizabeth Seward, Astrium UK, Use of ESARAD in MetOp Thermal Analysis Testing

- 15:20 Coffee break
- 15:35 Hans Peter de Koning, ESA, ESA Harmonisation & User Survey
- 16:05 Round Table Discussion

- 17:30 Social Gathering

- 20:00 Dinner (tbc)

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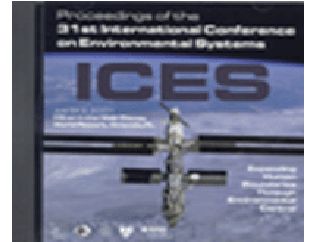
Wednesday 23 October Morning

- 09:00 Hume Peabody, Swales Aerospace, Use of TSS as a neutral geometry model conversions: an alternative to STEP-TAS format for
- 09:30 Jean-Paul Dudon, et al., Alcatel, CIGAL2: A new open source pre-post processing tool for Coratherm
- 10:00 Christian Ruel, MAYA, TMG: New Technologies and Modelling Approaches
- 10:30 Marc Jacquiau, Astrium-F, Systema/Thermica version 4: overview of the new capabilities
- 11:00 Coffee break
- 11:30 Julian Thomas, et al., ALSTOM, ESATAN/FHTS & ESARAD: A View on the Near Future
- 12:00 Simon Appel, ESA, Tasverter, a converter between ESARAD and Thermica
- 12:30 Julian Thomas, ALSTOM, ThermXL v2 and beyond
- 13:00 Lunch



Wednesday 23 October Afternoon

- 14:00 Valter Perotto, Alenia Spazio, ALTAN application to Bepi-Colombo thermal analyses
- 14:30 Christophe Marechal, CNES, Last developments in and around GAETAN
- 15:00 Coffee break
- 15:15 Vincent Ruelland, Open CASCADE, Salome, an open source platform dedicated to CAD/FE integration for numerical simulation
- 15:45 Final discussion and conclusions
- 16:15 End of Workshop



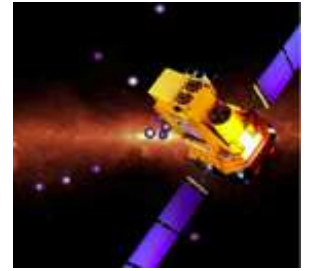
ICES 2003

- The 33rd International Conference on Environmental Systems will be held 7-10 July, 2003, Vancouver, B.C., Canada
- Deadline for submitting abstracts: 8 November, 2002
- Thermal software related abstracts to be sent to: Olivier Pin, email olivier.pin@esa.int



Practical Information

- Presenters: please leave your presentation (floppy or CD-ROM with PowerPoint file) with Duncan Gibson or Charles Stroom before the end of Workshop. Please leave a paper copy if possible to avoid problems with embedded fonts/logo's or Mac.
- No copyrights, please!
- Workshop Minutes will be supplied to participants, in hard copy and on the Web.



Practical Information

- Lunch: 13:00 - 14:00. The “Foyer” tables are reserved for us
- Cocktail today at 17:30 in the Foyer (near the canteen)
- Fax (+31-71-565-5949) and telephone available outside the Workshop room
- Check your details on the list of participants and inform the Conference Bureau of any modifications. Check your email address!

Dinner (tbc)

- "Dutch" dinner == you pay for yourself:-(
- in "de gulle Tjon", Huis ter Duinstraat 27, Noordwijk a/Z
- 3-course fixed menu with options for 33.50 euro, excl drinks
- Restaurant booked today for 20:00 (maps available). Please arrange your own transport
- If you would like to join, and you have not yet sent a confirmation email which I have seen, complete a form; sheets are available
- ultimate time today: 14:00, to let the restaurant know.
- Check your entry!



Naam	Entree				Main course		
	Carpaccio	Ragout	pheasant soup	fish soup	codfish	lamb	pheasant
Charles Stroom		1				1	
Elizabeth Seward			1			1	
Marc Jacquiau				1			1
Andy Robson		1				1	
Rachida Ameziane				1	1		
Julian Thomas				1			1
Frédéric du Laurens	1						1
Christian Ruel			1		1		
Hans Peter de Koning	1					1	
Nick Cavan				1			1
Hume Peabody			1			1	
Olivier Pin		1					1
Eric Werling				1			1
Vincent Ruelland	1					1	
Jayne Fereday			1			1	
Maurizio Rossi				1		1	
Totaal	3	3	4	6	2	8	6



Resto "de gulle Tjon"

