

17th European Workshop on Thermal and ECLS Software

21-22 October 2003, ESA ESTEC, Noordwijk

WELCOME & INTRODUCTION

Charles Stroom
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Thermal and Structures Division
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) software tools and to solicit feedback for development



ESA team

Charles Stroom	Head, Analysis & Verification Section
Harrie Rooijackers	Staff, co-organiser
Duncan Gibson	Software Support & Workshop Secretary



Programme

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



Tuesday 21 October 2003 morning

- 9:00 Registration
10:00-10:10 Welcome and Introduction
Charles Stroom (ESA/ESTEC, Netherlands)
10:10-10:35 ESATAN, FHTS & ThermXL current status
Henri Brouquet (ALSTOM, United Kingdom)
10:35-11:00 THERMICA - news of the year
Marc Jacquiau (EADS ASTRIUM, France)
11:00-11:25 ESARAD current status
Henri Brouquet (ALSTOM, United Kingdom)
11:25-11:45 Coffee Break
11:45-12:10 Capabilities of the ThermPlot Pro Thermal Post-Processing Program
Hume Peabody (Thermal Modeling Solutions, United States)
12:10-12:35 Overview of GAETAN's latest developments around ESATAN FHTS
Marie Imhof (Silogic, France)
12:35-13:00 Web Support & Future Developments on ESATAN, FHTS, ESARAD &
ThermXL
Chris Kirtley, Henri Brouquet (ALSTOM, United Kingdom)
13:00-14:00 Lunch



Tuesday 21 October 2003 afternoon

- 14:00-14:25 Harmonisation of thermal and space environment analysis software
Reinhard Schlitt, OHB-System AG, Germany, Hans Peter de Koning
(ESA/ESTEC, Netherlands)
14:25-14:50 Open Source Software for Engineering Purposes
Mathias Haupt (University Braunschweig, Germany), Reinhard
Schlitt, Frank Bodendieck (OHB-System AG, Germany)
14:50-15:15 Applicability of OSS to Space Thermal Engineering
Reinhard Schlitt, Frank Bodendieck (OHB-System AG, Germany),
Mathias Haupt (University Braunschweig, Germany)
15:15-15:35 Coffee break
15:35-16:00 Innovations in Using Finite Element Modelers for Spacecraft Thermal
Design
Ron Behee (Network Analysis, United States)
16:00-16:25 Application of the Open Source Approach to Space Environment
Analysis Tools
Holger Sdunnus (eta_max space, Germany)
16:25-17:30 Round Table Discussion, Hans Peter de Koning
17:30 Social Gathering is Space Expo
20:00 Dinner at the Thai Tjon, Albert Verweystraat 50, Noordwijk



Wednesday 22 October 2003 morning

- 9:00-9:25 Simulation of Furnace Inserts and Sample-Cartridge Assemblies Using the Thermal Modeling Tool CrysVUn
Marc Hainke, J. Dagner, J. Friedrich, G. Mueller (Fraunhofer, Germany)
- 9:25-9:50 Plant Growth Chamber Simulation using EcosimPro
Luis Ordonez Inda (ESA/ESTEC, Netherlands)
- 9:50-10:15 Thermal and fluid dynamic analysis of the air cooling/conditioning system on board of MDS (Mice Drawer System) facility
Giorgio Baldan, Antonella Sgambati (Laben, Italy)
- 10:15-10:40 Thermal Aspects of Long Term Operations on a Comet Surface
Hans Peter Schmidt (DLR, Germany)
- 10:40-10:55 Coffee break
- 10:55-11:20 HDF5 and STEP/NRF database for SINDA/G
Ron Behee (Network Analysis, United States)
- 11:20-11:45 GOCE - Thermo-Elastic Distortion Analysis
Lars Weimer (ASTRIUM GmbH, Germany)
- 11:45-12:10 Methodology for Thermal Models Archiving
Félix Lamela (EADS CASA, Spain)
- 12:10-12:35 The far field method for 1-D conductor computation
Simon Appel (ESA/ESTEC, Netherlands)
- 12:35-13:00 An Excel Database for the generation of ESATAN and Systema Thermal Models
Simon Barraclough (Astrium Ltd., United Kingdom)
- 13:00-14:00 Lunch

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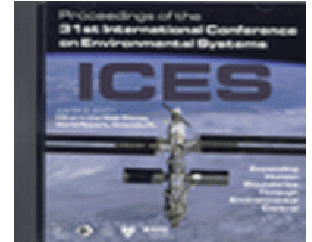
Wednesday 22 October 2003 afternoon

- 14:00-14:25 Preliminary title: RadTherm
Ralf Habig (ThermoAnalytics, Germany)
- 14:25-14:50 Robust industrial model exchange between ESARAD and THERMICA with STEP-TAS
Hans Peter de Koning (ESA/ESTEC, Netherlands)
- 14:50-15:15 THER-CFD : a THERMICA/GAMBIT gateway
Frédéric Boursier (EADS SPACE, France)
- 15:15-15:40 Highlights in thermal engineering at CGS: Thermal Stability in the frequency domain and THERMAL DESKTOP/ESARAD translation tools
Marco Molina, Christian Vettore (Carlo Gavazzi Space, Italy)
- 15:40 Conclusions and closure

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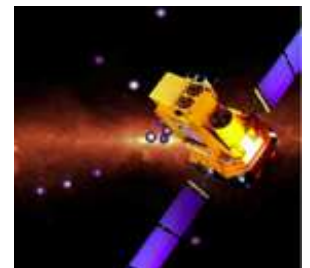
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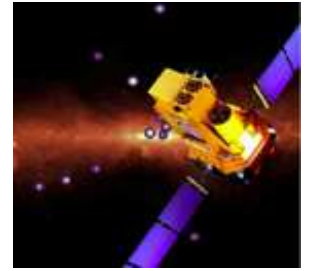


- The 34th International Conference on Environmental Systems will be held 19-22 July, 2004, Colorado Springs, USA,
- Deadline for submitting abstracts: Friday 7 November, 2003
- abstracts may be submitted online at <http://www.sae.org/calendar/ice/cfp.htm> (preferred)
- or sent to: Olivier Pin, email olivier.pin@esa.int
- Abstracts must include paper title, author(s) name(s), mailing and e-mail addresses, phone and fax numbers.

Practical Information



- Presenters: please leave your presentation (floppy or CD-ROM with PowerPoint file) with Duncan Gibson, Harrie Rooijackers or Charles Stroom before the end of Workshop. Please leave also a paper copy 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 Space Expo
- Check your details on the list of participants and inform the Conference Bureau of any modifications. Leave your email address!

Dinner (tbc)

- "Dutch" dinner == to be paid by yourself :-(
- in "de Thai Tjon", Albert Verweystraat 50, Noordwijk a/Z, tel +31-71-364-8888
- fixed menu per table with options for 32 euro p.p., excl drinks
 - Menu is kind of table buffet
 - bill will be calculated per table (including drinks) and shared equally
- Restaurant booked today for 20:00. Please arrange your own transport
- If you would like to join, then you would have to complete the last sheet of hand-out and return it to one of the organisers (Harrie or Charles)
- ultimate time today: 14:00, to let the restaurant know.

Restaurant "de Thai Tjon"



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Menu

(€ 32.00 p.p. exc. drinks.)

A selection of six different starters

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- Beef dishes
- Duck dishes
- Chicken dishes
- Tenderloin of pork dishes
- Fish dishes

Served with steamed rice, fried rice and fried noodles.

Xxxx

Bavarian
xxxx

Coffee or Tea.

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